



eeac

NEWSLETTER

Spring 1989

EEAC TO CO-SPONSOR ENVIRONMENTAL CONFERENCE WITH NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION

By Sam Holmes

A new kind of environmental conference will bring together educators, businessmen and community leaders on September 8th and 9th to study some of New York City's most urgent problems, under the joint sponsorship of the NYC Department of Environmental Protection and the Environmental Education Advisory Council. Assistance from the private sector is hoped for.

The 500 delegates to the conference will have the Vista Hotel in the World Trade Center as their headquarters but will use buses for traveling workshops that will inspect sewage treatment plants, solid waste landfills and other environmental control points in each of the city's five boroughs.

Department of Environmental Protection Commissioner Harvey W. Schultz, who conceived of the conference, said, "We want community leaders, businessmen and teachers from all of the planning boards and school districts in the city to understand how complex our environmental problems are, and then to look at our proposed solutions and let us know what they think. We're deliberately bringing together segments of the community that often do not talk to each other, in the hope that by exchanging ideas they will broaden their views, and develop a new consensus for action."

Commissioner Schultz emphasized that the conference would not be confined to water supply and conservation, water pollution, noise, and air pollution, which are his department's main responsibilities, but also would consider issues of solid waste, open space, transportation and development, all of which can affect the quality of life.

(Continued on page 7)

SAVE THIS DATE



SATURDAY, MAY 13



FROM SNAILS TO WHALES

AT THE NEW YORK ACADEMY OF SCIENCES & THE CENTRAL PARK ZOO

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

A voluntary organization in support of Environmental Education for New York

SYLLABUS HELP WANTED

Our Legislative Committee, Nancy Wolf and Mike Zamm, are continuing their efforts to help the State Education Department to infuse environmental education concepts in as many of the State curriculum syllabi as possible -- not just the sciences, but social studies, language arts and other subjects. Now they have an idea for an improvement, and they'd like your help with it.

They have proposed that each revised syllabus have an appendix which will clearly identify the environmental concepts and list the names of organizations which could help teachers to bring the concepts to life for their classes.

They need help in assembling lists of potential sources of help throughout the state -- nature centers, parks, environmental centers and programs, restoration villages, educational farms, university environmental centers and the like. If you know of any particularly good sources of help -- especially ones outside of NYC -- please let Nancy or Mike know. Nancy is at the Environmental Action Coalition (212) 677-1601 and Mike is at the Council on the Environment (212) 566-0990.

ALL MEMBERS ARE WELCOME AT STEERING COMMITTEE MEETINGS

The following monthly meetings are held from 4 to 6pm and members are encouraged to attend.

March 15 - Prospect Park Environmental Center
The Tennis House
Prospect Park
Brooklyn

April 12 - Environmental Action Coalition
625 Broadway
(Just uptown of Houston Street)
Manhattan

May 17 - Brooklyn Botanic Garden
New Education Building
(For free parking, use the street)

June 21 - New York University
310 Loeb Center
Corner of LaGuardia Place and
West 4th Street

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL



c/o Prospect Park Environmental Center
The Tennis House
Prospect Park
Brooklyn, N.Y. 11215

This newsletter is a publication of the Environmental Education Advisory Council (EEAC), a city-wide voluntary organization of educators, classroom teachers, administrators and other professionals in active support of environmental education. This newsletter is published quarterly and available free upon request.

EEAC OFFICERS

Sam Holmes, Chairperson (718) 788-8500
John W. Kominski, Vice Chairperson
Millard Clements, Secretary
Saundra Jones, Membership Secretary
Bernard Kirschenbaum, Treasurer

STEERING COMMITTEE

Elaine Alberts, Alley Pond Environmental Center
Rose Blaustein, Fireboat House Environmental Center
Richard Buegler, Protectors of Pine Oak Woods
Millard Clements, New York University
Ruth Eilenberg, Gateway Environmental Study Center
Kim Estes-Fradis, Alley Pond Environmental Center
Dr. Eugene Ezersky
Carol Franken, Academy of Environmental Sciences
Carol Garfinkel, NYC Dept. of Parks and Recreation
Roger Hart, CUNY Graduate Center
Peter Hearn, Inwood-Heights Parks Alliance
Sam Holmes
Saundra Jones, P.S. 136M
Marcia Kaplan-Mann, Environmental Quest/ÜFT
Bernard Kirschenbaum
John W. Kominski, NYC Board of Education
Kenneth Kowald, Consolidated Edison
Mike Mann, Brooklyn Clearwater/Environmental Quest
Charles Mazza, Cornell Cooperative Extension
Regina McCarthy, Community School District 27
John C. Muir, Prospect Park Environmental Center
Fredeswinda Pantajo, P.S. 251K
John Padalino, Pocono Environmental Education Center
Ray Pfortner, Peter Arnold, Inc.
Patti Reilly, Gateway National Recreation Area
Helen Ross Russell
Eneas Sloman, Elementary School Science Association
Talbert Spence, New York Academy of Sciences
Nancy A. Wolf, Environmental Action Coalition
Herb Yellin, American Cetacean Society
Mike Zamm, Council on the Environment of NYC

*Affiliations for identification purposes only

Kim Estes-Fradis, Newsletter Editor
Carol Ortner & Robert Ortner, Assistant Editors

Please send material (articles, drawings, letters, program information) for inclusion in the EEAC newsletter to:

Kim Estes-Fradis, Alley Pond Environmental Center, 228-06 Northern Boulevard, Douglaston, N.Y. 11363



Snails Can Help You
To bring excitement and the scientific
method to your classroom.

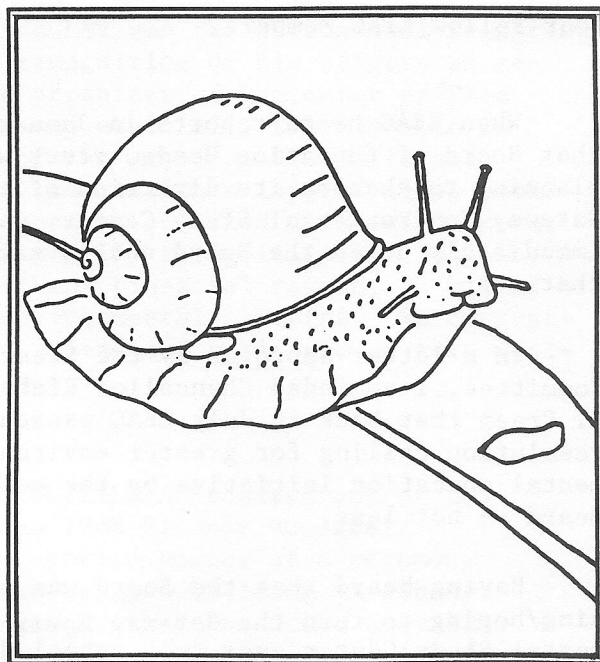
Act quickly so that you can be one of the 60 educators
who will take part in an important free* demonstration:

FROM SNAILS TO WHALES

Saturday, May 13

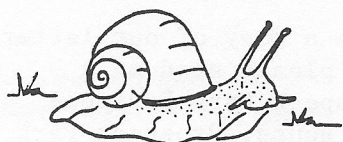
9:30 am - 4:30 pm

At the NEW YORK ACADEMY OF SCIENCES
2 East 63rd. St. & the CENTRAL PARK ZOO



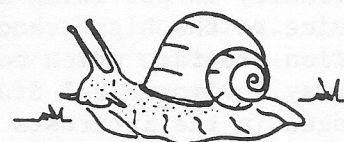
Working with a group of 19 other teachers you will:

Work with other master teachers of the Method on applying it to three zoo animals. You will learn how to extend the Method to field trips with your class to beaches, parks, marshes, woodlands, zoos and farms.



Explore the behavior of your own live snail, while learning how the investigation-Colloquium Method can help you to teach science. Workshop Team Leader George Tokieda has worked for 22 years on development of the Method with Brenda Lansdown, producing outstanding programs at the Brearley School, and the Bank Street College of Education.

Receive printed materials and learn sources of supplies which will enable you to use snails in your classroom easily and inexpensively. Much of the equipment used in I-CM classes can be made by the students themselves.



HURRY! The 60 workshop places are available on a first-come, first-served basis only.
APPLICATION DEADLINE: MAY 3, 1989.
YOU WILL BE NOTIFIED as to whether you have a place.
BRING: a bag lunch.
WORKSHOP WILL BE HELD: Rain or shine.

* There is a \$3 fee to cover the cost of materials, snails, zoo admission and a lunch beverage. Make your checks payable to: ENVIRONMENTAL EDUCATION ADVISORY COUNCIL and send it to: EEAC, c/o Prospect Park Environmental Center, The Tennis House, Prospect Park, Brooklyn, NY 11215. Include a note containing your name, address with zip, home phone, school/organization name, phone and address and the the grade you teach or the position you hold.

This program is co-sponsored by The New York Academy of Sciences, The Environmental Education Advisory Council and Investigation-Colloquium Method, Inc. with special thanks to the New York Zoological Society at the Central Park Zoo for its cooperation.

Dear Fellow EEAC Members,

When EEAC heard reports in January that Board of Education Headquarters was planning to abandon its direction of the Gateway Environmental Study Center, we immediately urged the Board not to take that step.

In a letter approved by the Steering Committee, I reminded Chancellor Richard R. Green that back in July EEAC passed a resolution calling for greater environmental education initiative by the central Board -- not less.

Having heard that the Board was planning/hoping to turn the Gateway Environmental Study Center over to a school district, I said that a single district cannot provide the same level of service to the other districts that the Center currently provides. Inevitably, the district operating the Center would need to focus on the requirements and programs of its own district. In the process, there would be lost not only service to the other 31 districts, but the catalytic interchange through which the Center now helps to spread good ideas.

A local school district would have great difficulty in providing adequate citywide service to the high schools and special education programs which now make use of the Gateway Environmental Study Center. And changes in the interests or priorities of the superintendent of the district operating the Center could cause it quickly to wither and die.

Since it opened in 1976 the Center has provided 22,963 teachers with training, 274,000 student day trips and brought 18,000 children the only school tent camping program within New York City. (Whatever happened to "If it ain't broke, don't fix it"? I did not say that in the letter.)

Our letter also went to Board President Robert F. Wagner, Jr. and all members of the Board; to the NYC Congressional delegation; to the Mayor and the NYC Board of Estimate, to the City Council Committees on Education and Environmental Protection and to other city officials.

At about the same time that our letter went out, Gateway Superintendent Robert W. McIntosh, Jr. had scheduled a meeting with central Board officials to advance the environmental education agenda and secure the role of the Gateway Environmental Education Center as a central Board responsibility. Letters against the change were also mailed by the Educators for Gateway organization. The Educators are beautifully organized and got their letters out before we did. The Friends of Gateway organization was considering a letter in support of central Board direction of the Center as this was written.

In our letter I said that our July resolution for improvement of environmental education in New York City has drawn favorable comment at the Board's Office of Program and Curriculum Development, which recommended that we now present it to the Board. I urgently requested a meeting so that we could do this.

Our July resolution, you may remember, asks the Chancellor and the Board to establish a citywide environmental education policy, and to appoint a full-time coordinator to implement it.

If you would like a copy of our letter or of the resolution, please send me a note at EEAC, c/o Prospect Park Environmental Center, Tennis House, Prospect Park, Brooklyn, NY 11215.

SAM HOLMES



George Washington H.S. students participating in interpretive salt marsh work in Inwood Park. (Story page 12) Photograph by Bob Ortner

SEVEN ELECTED TO STEERING COMMITTEE

In a meeting at the United Nations Environment Programme on November 16, the EEAC membership elected seven to the Steering Committee.

The seven, who had been nominated by the Nominating Committee, included six members for "the Class of 1991", and one member for "the Class of 1989" to replace Joseph M. Varon, who retired from the Steering Committee.

Those elected to "the Class of 1991" were Dick Buegler, Regina McCarthy, John Muir, Fredeswinda Pantoja, Talbert Spence and Mike Zamm.

Charles Mazza was elected to fill Varon's unexpired term.



The EEAC newsletter will begin to contain brief biographies of the Steering Committee members. Beginning with this issue, we are pleased to feature MIKE ZAMM, a long-time member and DICK BUEGLER, one of our newest members.

* A former NYC school teacher (K-6, 1968-75), MIKE ZAMM has been Director of Environmental Education at the Council on the Environment of New York City since 1975. Between 1975 and 1979 the walking tours/mapping and energy conservation action programs involved many NYC teachers and students (grades 2-9) in classroom and neighborhood activities which increased student awareness of the urban environment and led to numerous school and home energy projects. Since 1979, Mike has coordinated the Training Student Organizers (TSO) Program which has motivated over 5,700 high school, college, and primary school students and their teachers to organize more than 200 environmental improvement projects in their schools and neighborhoods. Mike has been a member of the EEAC Steering Committee for many years, was Secretary for one year, and has been Co-Chairperson of the Legislative Committee since 1983. In that capacity he has played a significant role in coordinating the successful effort to infuse environmental concepts into the New York State Syllabus. Mike earned a Masters Degree in Public Administration from New York University in 1973.

* RICHARD BUEGLER has been teaching high school biology, earth science and ecology on Staten Island for 30 years. He is also co-founder of the Staten Island Science Teachers Association, a K through college professional organization offering an extensive program of workshops, lectures, conferences and field trips for teachers in public, private and parochial schools. As a founder and long-time president of the Protectors of Pine Oak Woods, S.I.'s major land-use, conservation organization, Dick is deeply involved in natural areas preservation. Dick recently received the prestigious Sol Feinstein Award (see "Spotlights") for his work.

An avid naturalist, Dick often leads walks along the Greenbelt with his monarch butterfly walk as an annual highlight. For 20 years, Dick has been a staff member of the Watson Summer Ecology Workshop, providing participants with an exciting, stimulating and thorough exploration of nature.

EEAC BACKS ENVIRONMENTAL EMPHASIS AT FAIRS

For the second year, EEAC will present an award to the High School finalist in the citywide Science Fairs whose project best reflects an awareness of the environment and/or its problems. The award includes a certificate and a U.S. Savings Bond worth \$50 at maturity.

The EEAC Steering Committee also voted to explore the possibility of making awards to the best environmentally oriented Science Fair projects produced by 7th and 8th grade students in each of the five borough fairs.

Only projects at the senior high school level get to go to the citywide finals in Manhattan, and the Steering Committee felt that it would also be desirable to encourage and recognize the environmental awareness of 7th and 8th graders.

EEAC is working on the organization of judging teams for the borough and city-wide exhibits as this Newsletter goes to press.

A MESSAGE FROM THE NYC ARBOR DAY COMMITTEE

Dear Educational Leader:

The observance of Arbor Day has been highly visible in New York City during the past decade, largely because of the work of the N.Y.C. Arbor Day Committee, representing public, private and non-profit agencies. A substantial part of the Committee's work has been the use of the Arbor Day as a tool for environmental education. Our free teacher-training workshops were presented at environmental centers in all five boroughs, and taught by professional foresters and environmental educators. Over 1000 teachers and youth group leaders have been trained through these workshops.

What will happen this year?

New York City Arbor Day Committee activities require the cooperative effort of dozens of individuals and groups. Much of the detail work regarding workshops, purchase and delivery of trees, and follow-up, has been done by Laurel Remus, the Region II (N.Y.C.) Forester for New York State's Department of Environmental Conservation (DEC). Laurel's help is not available this year. She has been instructed to work on only one project: the acquisition of property through the Environmental Quality Bond Act. While we highly approve of the EQBA acquisitions, no one has been assigned to take over the community outreach and educational work that formed the main thrust of Laurel's work until now.

This means that Arbor Day 1989 will not be its "old self". The Committee cannot do its work, especially the education workshops, without the leadership and support of Laurel and the DEC. This year if you want your class or group to participate in an Arbor Day tree-planting, you will have to gather educational materials, locate a nursery, choose and purchase the right tree and transport it to your location on your own.

Members of the N.Y.C. Arbor Day Committee, through the Environmental Education Advisory Council, and as individuals, have met on numerous occasions with DEC administrators, including Region II Director Carol Ash, State Forester Robert Bathrick, and Deputy Commissioner Roy Torkelson.

Although many officials have informally agreed with our position, high-level decision-makers have so far refused to see the need for a second forester in Region II. Upstate and Long Island Regions have far more foresters and money for the number of people served than does Region II (see Fact Sheet).

Urban forestry, through education and community assistance, deals with people and the city's need for trees, not a specific quantity of forested land. DEC does not seem to realize this.

Governor Cuomo's proposed Executive Budget for Fiscal Year 1989-90 includes at least three new forestry positions. Region II needs one of these! The State Fiscal Year begins April 1. Now is the time to let our representatives in the State Legislature and Executive know our concerns. Letter writing is a proven method of influencing governmental leaders. It is a good lesson for your children. Please write, and have your children write, to:

Governor Mario Cuomo
The Capitol
Albany, NY 12224

Commissioner Thomas Jorling
NYS Dept. of Environmental Conservation
50 Wolf Road
Albany, NY 12223

Your State Assembly Member and Senator
(If you do not know who they are, contact Environmental Action Coalition, (212) 677-1601.)

Ask the Governor and the Commissioner to fund one more forester to serve Region II's 7 million people and many millions of trees. Tell them that without DEC's support, there will be NO community forestry NOR Arbor Day celebrations in New York City in the future.

If possible, please send EAC copies of your letter(s) and any replies (625 Broadway, New York, NY 10012). Thank you for your support of urban forestry and Arbor Day in N.Y.C.

Sincerely,

NANCY WOLF and NAOLA GERSTEN-WOOLF

(Continued on the next page)

AN IMPORTANT MESSAGE (Continued)

FACT SHEET

*Within DEC's Division of Lands and Water Region II (N.Y.C.) has ONE forester, and THREE Fish and Wildlife personnel.

*Region II (NYC) - 1 Forester/ 7 mil. people
 " I (LI) 3 2.6
 " III (Lower 12 1.9
 Hudson)
 " IV (Albany) 15 0.8

*Region II has the LOWEST staffing in Forestry in the State.

*Our ONE forester was originally assigned in a CFM position (to provide TECHNICAL ASSISTANCE), but has now been assigned to Environmental Quality Bond Act acquisition (real property).

*Region II has no forester OFFICIALLY assigned to:

- environmental education, so in the past she had to "steal" time from her official duties or take work home in order to do Arbor Day, Project Learning Tree, Woods and Water.

- operations: to manage land acquired through EQBA

- ranger duty

Region II is the only region without staff in those areas.

* In 1986 and 1987 the NYC Arbor Day Committee participated in the New York Flower Show; our exhibit was seen by THOUSANDS of people each day. In 1988 this funding was cut from the Region II DEC budget, although other Regions retained funds to participate in local fairs. These funds were not re-instated in 1988-89.

EEAC TO CO-SPONSOR ENVIRONMENTAL CONFERENCE (Continued from the front cover)

Nancy Wolf, Executive Director of the Environmental Action Coalition and past chairman of EEAC, will be EEAC's liaison for the conference. She urged that all members who can assist with planning the conference contact her immediately at the Coalition office (212) 677-1601.

Of the 500 conference delegates, one third will be educators, and Commissioner Schultz said he hoped the conference would "bring home the urgent need for environmental education and show ways that various city agencies can help to make it happen."

EEAC members will be invited to attend, but the number of places will be limited and will be available on a first-come, first-served basis, with a cut-off date for registration. Other educators will be invited from the public school system, the independent schools, the parochial schools and colleges.

Although the EEAC Steering Committee was initially concerned that the September 8th and 9th dates would make it difficult to include educator participants, after considering the diverse sources of educators and the comparatively small number that would be drawn from each, the Committee decided that the September dates would be workable. The Committee recommended that the conference planners make special efforts this winter and spring to have conference delegates from the public schools released to attend on Friday, September 8th.

Conference plans call for an opening plenary session led by scientists, educators and political leaders, including Mayor Edward I. Koch.

Also in the planning stage is an optional program at the end of the conference in which 100 delegates may go to the Pocono Environmental Center in Dingman's Ferry, PA for dinner and a Sunday program of environmental events.

FEATURES

8

OPERATION EXPLORE



In the words of some of the children who have participated in OPERATION EXPLORE, OPEX is,

"learning about nature"

"seeing trees grow moss and turkey tails"

"scientific and educational"

"walking quietly in the dark"

"cooperating with others"

from A YEAR OF ENVIRONMENTAL STUDIES

A publication of classes 5-301,302,PS 251K

Mrs. I. Graf, Ms. F. Pantoja

Cooperation among four agencies in New York City is what enables the students from P.S. 251K and the rest of the more than 1500 fourth, fifth and sixth grade students from all parts of New York City to enjoy the day and overnight field trips in three different environments that OPERATION EXPLORE offers each year. Now in its twelfth year, OPERATION EXPLORE is a model of interagency synergy involving city, state and federal organizations. The program is administered and funded by the New York State Office of Parks, Recreation and Historic Preservation in partnership with Gateway National Recreation Area of the National Park Service, Cornell University Cooperative Extension 4H program, and the New York City Board of Education. Open to all community school districts in New York City, the program spans the school year and begins with the selection of classes from interested school districts. Twenty-eight out of thirty-two districts are participating in school year 1988-1989.

Once the selection of interested teachers has been made by the districts in early fall, the program swings into action. Teachers attend an introductory workshop at Gateway Environmental Study Center, itself an example of the cooperation between two agencies, the New York City Board of Education and Gateway National Recreation Area, for an orientation to the overall goals of the program. They are introduced to their first field trip site, one of the four coastal regions of Gateway National Recreation Area. Program staff emphasize the goals of OPEX which are:

1. To provide students with sources of life-long interest, skills and values.
2. To foster an understanding of the interdependence among urban, rural and marine environments.

3. To promote improved cooperation, communication and trust.
4. To improve problem solving and basic skills.
5. To encourage responsible student participation.

These goals are stressed during every aspect of the OPEX experience. When the students and their teachers visit Gateway, National Park Service Rangers guide them through the marine environment, emphasizing aquatic life and food chains and their relationship to farm and forest habitats. Thus is the foundation built for the residential, upstate visit. Before their class visit, teachers attend an overnight staff development session at Stony Kill Environmental Education Center which is operated by the New York State Department of Environmental Conservation and Taconic Outdoor Education Center, administered by New York State Parks, Recreation and Historic Preservation. The classroom teacher is a partner and is vital to the success of the program, and teacher training is integral to every part of OPERATION EXPLORE.

After classroom preparation and selection of parent chaperones, the class is ready to start out on the three-day, two-night visit to farm and forest. Naturalists and trained volunteers help children explore farm life at Stony Kill and discover the source of some of the food found in city supermarkets. They feed the cows, examine plants and farm machinery and apply the ecological principles they learned at Gateway. From the farm they proceed to their home away from home for the next three days, Taconic Outdoor Education Center. They learn to share living space and responsibilities with their classmates and relate to their teachers and other adults in a very different setting from home. Campers gain greater self-esteem and confidence in the process as they work together to solve problems and explore the beautiful wooded areas surrounding the camp. Once again, naturalists stress the interrelationship of rural, farm and urban environments. Once again, children live the lesson of cooperation.

(Continued on next page)

OPERATION EXPLORE (Continued)

There is time for recreation too. Evening programs may include stargazing, square dancing, or visits from guest ornithologists, herpetologists or story-tellers relating the tales of the native Americans of the area. Children learn to enjoy "walking quietly in the dark."

Back in the classroom, teachers use the seashore, farm and forest experiences along with the OPEX resource guide developed by the program partners and add their own creativity to apply the lessons learned to their own instructional program. Each group develops a project to bring OPEX back to their own community. The students prepare journals, photo albums, murals; they write poetry, do research, print photographs and plan live or video performances for other students. Last year students, teachers, parents and program providers gathered at Gateway Environmental Study Center in June to reminisce and to share their projects. It was an impressive array of follow-up activities and a rewarding experience for those who attended. It is sure to become an annual event culminating the program year.

The interest of teachers in participating in OPEX far exceeds the number of slots available and there is a cadre of past participants who relinquish involvement so that others may participate. The cooperating agencies have begun discussions on a second stage of OPEX for those experienced teachers who have contributed so much to the development of the program and who can act as mentors to those who are new to OPERATION EXPLORE. The hope is to craft an OPEX: CITY SITES which would take full advantage of what New York City has to offer. We look forward to the time when we will be able to offer every fourth, fifth or sixth grade student in New York City the opportunity to experience not only the "scientific and educational" but also the great personal growth of OPERATION EXPLORE. "Tis a consummation devoutly to be wished."

RUTH EILENBERG

AUDUBON ECOLOGY CAMP IN MAINE... A UNIQUE VACATION EXPERIENCE

What seas what shores what gray rocks and
what island
What water lapping the bow
And scent of pine and the woodthrush singing
through the fog
What images return... T.S. Eliot, 1930

Had the Eliot poem not predated the founding of the Audubon Camp on Hog Island in Muscongus Bay off the coast of Maine more than 50 years ago, one might have identified its site as the inspiration for the work. The islands in the many bays off of Maine, have served this purpose for writers and artists for many years, since they possess a special quality, found in few other places.

This location is the setting for an unusual vacation, a camp for adults who seek a learning experience while getting close to nature. The camp, one of several operated by the National Audubon Society, specializes in Coastal ecology, and during the 6 day or 12 day sessions, campers delve into its many aspects as they study the plants, animals, tides and all the other interrelated elements.

Led by a highly competent and enthusiastic staff of teachers, whose specialties include botany, marine biology, boating and birding, among others, the vacationers investigate diverse aspects of the natural world, spending much time on boats, wading in intertidal zones and visiting near-by islands.

The six-day sessions will be held July 9-15 and July 30-August 5th. The cost is \$495.00. The twelve-day sessions will be held July 17-28 and August 7-18. The cost is \$695.00. There is also a June 18-28 session for young people who are interested in nature, costing \$595.00.

In addition to the Maine Camp, Audubon also operates Ecology Camps in Greenwich, Connecticut, and Wyoming. For the first time, there will also be sessions held in Kenya. For further information, write to National Audubon at 613 Riversville Rd., Greenwich CT. 06831, (203) 869-2017.

LENORE MILLER

NATURAL RESOURCES GROUP



New York City has a little over 7,000 acres of natural areas tucked away amongst its 26,000 acres of parkland. In April of 1984 Henry J. Stern, Commissioner of the City of New York Department of Parks and Recreation created the Natural Resources Group (NRG) to manage and protect these more rural parks. Historically, the Parks Department's maintenance efforts have been focused on the more manicured parks and recreational facilities. Natural parks were left alone to care for themselves.

With a small but growing staff of natural resource specialists, NRG's mission has been to develop policy and management strategies for the city's wetlands, woodlands, and meadows that remain undeveloped and, to increase public awareness through brochures and environmental education programs.

The division's first task back in 1984 was to identify what natural resources existed in the city. With the assistance of the Cornell Laboratory for Environmental Application of Remote Sensing (CLEARS), NRG inventoried and mapped all of the city's open space, and labeled all its parkland by coverytype (e.g.: forest, woodland, meadow). Using entitation (a method of aerial photo interpretation developed with the help of Dr. Garry Rogers of Columbia University), NRG then completed a pilot environmental assessment for Pelham Bay Park, the Bronx. Field technicians, armed with clipboards, compasses, field guides, data sheets and aerial photographs walked the park's every inch and documented what they found there. Data was also collected on water quality, soils, wildlife habitat and indicators of historical uses. The information they gathered was then interpreted into a park-wide management plan. Similar assessments have also been completed for Marine Park in Brooklyn, Udall's Cove, Alley Pond, Kissena, Cunningham and Forest Parks in Queens, and Riverdale and Van Cortlandt Parks in the Bronx. Among the more common species like grey squirrel, Ailanthus, Phragmites and House Sparrow, NRG technicians have made some surprising discoveries in their park travels.

In 1987 a pair of White-tailed deer was spotted grazing in Van Cortlandt Park. Several breeding pair of Peregrine Falcons have been spotted on the city's bridges and 25 species on New York State's list of rare or endangered plants have been identified in city parks. These plants have been registered under the New York State Heritage Program as a measure of protection.

Recently, the Parks Department has begun to form Environmental Concerns Crews in each borough, to address the maintenance needs of natural areas. Under the direction of park managers and with training from NRG, these crews will carry out specialized restoration projects in the City's natural parks. Some priority concerns are restricting access, especially to vehicles, erosion control, and the improvement of trail systems.



John Kieran Nature Trail, Van Cortlandt Park
Photograph by Malcolm Pinckney, NYC Dept. of Parks

Another important function of the Natural Resources Group is to increase public awareness and provide educational programs. With generous funding from the New York State Office of Parks, recreation and Historic Preservation, seasonal naturalists are hired each year to write brochures for those parks that have been inventoried. NRG has also contributed to the development of several nature centers throughout the city including: the Kissena Park Nature Center in Queens and the Pelham Bay Park Environmental Center in the Bronx.

(Continued on page 11)

NATURAL RESOURCES GROUP (Continued)

Operated by the Urban Park Rangers, these centers offer exhibits related to the park's natural areas and interpretive programs for the public. NRG has also created the following nature trails: the Kazimiroff Nature Trail, Pelham Bay Park, the John Kieran Nature Trail, Van Cortlandt Park and the Gerritson Creek Nature Trail, Marine Park.

The NRG staff also serves as in-house consultants to other Parks divisions on environmental issues, and works closely with community groups throughout the city who are involved in managing and protecting natural parks.

In 1987 NRG began the Adopt-a-Park program with high school classes around the city. The program, which has ten school participants, teaches students the importance of parks through hands on restoration projects.

The Natural Resources Group has the following publications available free of charge, by writing to: NYC Department of Parks and Recreation, Natural Resources Group, The Arsenal, 830 Fifth Avenue, New York, NY 10021 or calling (212) 360-8119.

Country in the City: New York's Natural Parklands

Kazimiroff Nature Trail Guide: Pelham Bay Park

Kissena Park: The Wild Side

Cunningham Park: A Guide to the Natural Areas

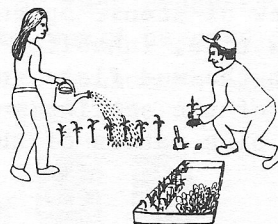
John Kieran Nature Trail Guide: Van Cortlandt Park

The Urban Park Rangers offer a wide variety of nature programs and walks for people of all ages. For further information call (212) 860-1351.

OPPORTUNITIES FOR TEACHERS IN OPERATION GREEN PLANT

If you want to teach your class how to grow fresh vegetables, or beautify your schoolyard, or brighten your neighborhood, you can get help from Nanine Bilski, one of EEAC's newest members.

Nanine is National Program Director for the America The Beautiful Fund, which can provide you with free seeds for vegetables, herbs and flowers, as well as bulbs and instructional sheets on planting, cultivation and the nutritional value of fresh vegetables. For a \$4.95 fee to cover handling and postage you can receive 50 packets of seeds worth approximately \$50.



Called Operation Green Plant, the program last year sent seeds to all 50 states for use by 15,000 community action groups, schools, senior centers, soup kitchens and horticultural therapy programs in children's hospitals, hospices and AIDS wards. Donated by a dozen leading American seed companies, the seeds are last year's crop, but they still have a germination rate of between 85% and 90%.

Nanine, who explained her program to New York's Elementary District Science Coordinators in January, stressed that it is the educational and community-building aspect of growing plants that is most important to the America The Beautiful Fund. "We're more concerned with how the people grow than with how the plants grow," she said.

To receive a gift of between 50 and 550 packets of free seeds for your school, simply write to: America the Beautiful Fund, Dept. SH, 219 Shoreham Building, Washington, D.C. 20005. Request an order form and upon its receipt, include \$4.95 for postage and handling for the first 50 packets and \$4.00 for each 100 additional packets up to 550.

THE INWOOD-HEIGHTS PARK ALLIANCE

Imagine. It is late afternoon on a spring day. You are walking along a path through a forested area. Mighty oaks and tulip trees tower around you. Last year's leaves crunch underfoot as you walk past huge boulders and foreboding dark caves. Your mind wonders, "What mysteries do these caves hold? Did someone live here? Who lived here? What was their life like?" As the path climbs up a hill, you notice the signs of spring - green grass becoming greener, buds becoming leaves, wildflowers starting to bloom. The chorus of nature in all of its aspects is in high harmony. You reach the crest of the hill and are rewarded with a view of scenic splendor - a salt marsh at low tide, inhabited by egrets feeding upon the mud flats and bathed in the glow of the setting sun reflecting off the blue waters of the estuary.

You do not need to imagine this scene. It may be found in the wilds of northern Manhattan in Inwood Hill Park. Even better, the school children from early childhood through junior high can learn from and enjoy environmental education programs offered by the Inwood-Heights Park Alliance.

Inwood-Heights Park Alliance is a citizen's organization formed in 1981 to preserve the parks of Inwood and Washington Heights. The Alliance offers the educational programs of The Outdoor School and maintains a study lab at Inwood Park's salt marsh (the only salt marsh of Manhattan Island). Some of the school programs include: Useful Plants - culinary, medicinal, and decorative uses of plants by native Americans and colonists and Manhattan Marsh - The Biological Properties, a program in which children examine adaptive mechanisms of plants and animals to life in an estuarine environment and observe wildlife in the marsh. Field trip materials, which include "pre" and "post" trip packets (including data sheets), are available for teachers and children. Education programs are flexible and can be adapted to the level and the needs of the students.

The Alliance also offers a variety of other programs. These include an After-school Nature Program for upper elementary students from February through April and a 6-week Nature Camp for pre-schoolers during July and August with 2 groupings; one for 3 year-olds and another for 4-5 year-olds. Adult programming includes "Twilight" or "Weekend" walks during the spring. Topics for these walks include Geology, Plant Adaptation, Wilderness Survival, and The Salt Marsh.

A distinguishing characteristic of the Inwood-Heights Park Alliance is its community involvement. The Alliance has about 500 members. Many of these members participate in monthly park plantings and clean-ups, and the Alliance is embarking upon a joint salt marsh public awareness campaign with the Council on the Environment of New York City and students from George Washington High School in Washington Heights. The Carey Foundation, through the Citizens Committee of New York City, has recently awarded a grant of \$3200. to the Alliance for more in-depth study and problem-solving regarding pollution in the community parks and especially Inwood's salt marsh. The Green Team is a summer youth employment program in which neighborhood adolescent youths are employed to help clean and enhance the park environment and learn new skills regarding pruning, garden maintenance, and tool care.

BOB ORTNER

From time to time, I would like to offer an article spotlighting small environmental organizations that are out of the limelight and receive little, if any, publicity. Often it is these small groups that are providing a great deal of services to the community and do not receive the recognition they deserve. Contact me, Bob Ortner, CENYC, 51 Chambers Street, Room 228, New York, NY 10007 or call (212) 566-0990 if you have information to be considered for publication in this newsletter regarding such an organization.

EMPLOYMENT/VOLUNTEER OPPORTUNITIES

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ALLEY POND ENVIRONMENTAL CENTER



This northeast Queens environmental education organization is seeking a creative educator/program developer with an awareness of the natural environment. This is an entry level position, offering between \$16 - \$18K, depending on experience. Please send resumes to: Education Director, APEC, 228-06 Northern Boulevard, Douglaston, New York 11363. For information, call (718) 229-4000.

CENTRAL PARK ZOO



If you are 18 years or older and have a genuine interest in wildlife education you may be interested in this opportunity. As a New York Zoological Society volunteer you will teach zoo visitors about animals, lead tours, answer wildlife questions, assist zoo instructors in children's wildlife education classes and get involved in special events. To receive an application, call the Education Department at (212) 439-6538.

NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION



If you have a strong interest in NYC's Parks, a background in Environmental Studies or Park Management and strong interpersonal skills, then you should consider employment as: Urban Park Ranger or Assistant Urban Park Ranger - conducting interpretive tours, workshops and presentations; providing the public with information on parks' activities; promoting safe park use and enjoyment of parks.

You must be a New York City resident. Further inquiries regarding qualifications as well as resumes should be brought to the attention of Kim McNeal-Butler, Urban Park Rangers, City of New York, Parks and Recreation, 1234 5th Avenue, Rm. 205, New York, NY 10029.

The Natural Resources Group has the following positions available:

Aquatic Biologist/Wildlife Biologist

Natural Resources Technician

Natural Resources Specialist

Natural Resources Restoration Crew - Field Technician

Within the Forestry division, the following positions are available:

Director of Recycling

Office Manager (Queens Forestry)

Urban Forester

Recycling Staff Assistant

On Wednesday, March 15th, the Parks Department will hold a JOB FAIR in the Arsenal Gallery, Third Floor, 64th Street and 5th Avenue, from 4-7 pm.

Applicants should direct inquiries to: City of New York, Parks and Recreation, Recruitment Division, The Arsenal, Central Park, NY, NY 10021 Equal Opportunity Employer

THE PARKS COUNCIL

CREW SUPERVISOR - The Parks Council seeks a person with supervisory experience in outdoor work to supervise work crews of teenagers. Horticultural and maintenance projects will be the work of each crew. For more information, contact Carolyn Angiolillo at (212) 838-9410.

LOW INCOME YOUTH EMPLOYMENT - Youths, ages 14-21, have the opportunity to work in regional or neighborhood parks at performing maintenance and horticultural work with career development sessions. Applicants must meet federally established income guidelines, must have a social security card, and must be a NY resident. The session is July 3 through August 18; Monday through Thursday, 9am-4pm. For more information, contact Carolyn Angiolillo at (212) 838-9410.

... the wise man looks into space,
and does not regard the small as too little, nor the great as too big;
for he knows that there is no limit to dimensions.

Lao-tse

OBSERVATION AND PERCEPTION

One of the most important aspects of the scientific method is getting kids to do problem solving. Before a child can make a hypothesis, he or she must learn to make careful observations using the appropriate senses. Once observations have been made, inferences will follow and the process leading to a solution is under way.

Whether you are teaching biology or physics, or environmental science, you will find that experiences that enhance observation skills will help your students to collect accurate information and then to develop hypothesis based upon them.

On the next page is a simple puzzle that will lend itself beautifully to a variety of different learning situations. This puzzle involves the magical disappearance of a line from a piece of paper. I suggest that your students construct the puzzle from the following specifications so that they can become fully involved in its design and possible solutions.

The classic example of this kind of puzzle is the "Vanishing Leprechaun"-available from Magic Moments With Class. Marvin Gardner's wonderful book AHA Gotcha has an excellent discussion and explanation of this puzzle.

For a wonderful collection of similar geometric vanishes, try the November/December 1980 issue of Games magazine. Back issues can be ordered from:

Games, Back Issue Dept.
23 Lincoln Avenue
Ridgefield Park, NJ 07660

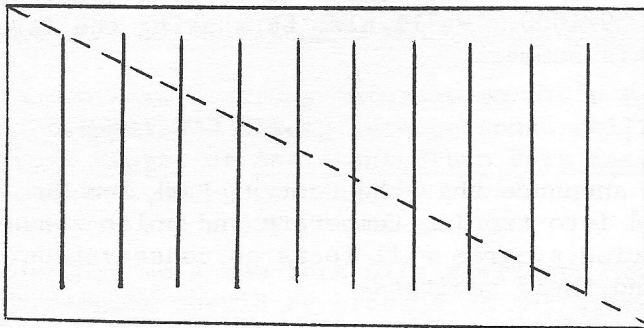
Enjoy the enthusiasm this puzzle will generate and hopefully, in turn, will lead to other Magic Moments with Your Class. Share the variety of illusions in the Games Magazine with your classes and challenge them to create their own.

Remember - appreciation of the world around us requires that we start with simple observations. Learning can and should be a magical experience.

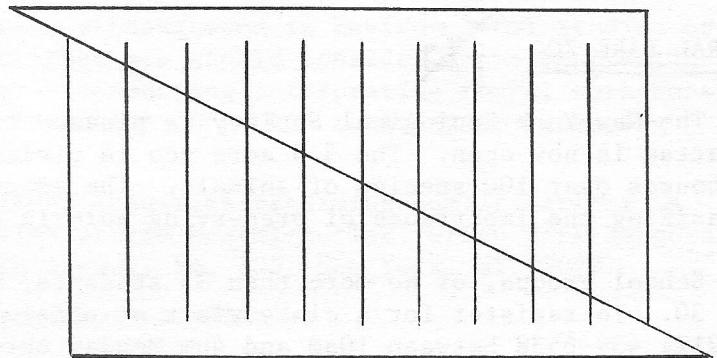
Specifications: (Stress the importance of careful measurement.)

1. Draw a rectangle 22cm x 12cm
2. Draw a diagonal line from the upper left to the lower right corner.
3. Starting from the left-hand edge, draw 10 lines 2cm apart across the rectangle. These lines should be drawn vertically. Each line should stop 1.1cm from the top and bottom edges of the rectangle. A 2cm margin should be left on each side.
4. Cut out the rectangle.
5. Cut along the diagonal line, forming two triangles.

Position #1



Position #2



In position #1, your students will count ten lines. Now slide the two rectangles as shown in position #2, and your students will count only nine lines. Is this Magic or is it Science?

At this point, your class can generate a list of observations and they can attempt to unravel the mystery.

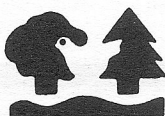
The solution, which can be discovered through careful measurement, will show that in position #2, the lines are longer. In position #1, the lines are shorter. Careful examination will also show that there are only nine lines on each triangle. Conservation of length is maintained as the puzzle is shifted from position #1 to position #2. As the number of lines changed from ten to nine, their length increased accordingly.

PETER SUCHMANN
MAGIC MOMENTS WITH CLASS, INC.

... To know that what is impenetrable to us really exists,
manifesting itself as the highest wisdom and the most radiant beauty...

Albert Einstein

ALLEY POND ENVIRONMENTAL CENTER



Explore the earth, sky and beyond with a variety of programs and workshops every month. APEC offers Astronomy, Early Morning Birdwalks, Botanical Safaris, Wetland and Woodland Walks plus Photography Workshops and field trips with every turn of the calendar! Special programs to remember include:

Thursday, April 6, 7:30pm - History of the Long Island Motor Parkway presentation.

Saturday, April 15, 11am - Hike the Long Island Motor Parkway.

Saturday, May 6, 10am-4pm - Create your own Antara (pan-pipe)

Thursday, May 11, 7pm - Rope-making Workshop and Campfire Gathering.

Saturday, May 13, 1pm - Woodland Walk in Alley Pond Park with John Kominski.

APEC is open Tuesday-Saturday 9am-4:30pm and Sunday 11am-3:30pm. For program details and a FREE calendar of events, call APEC at (718) 229-4000. We'll also be sharing the latest news about APEC's upcoming renovations beginning this summer.

CENTRAL PARK ZOO



The New York Zoological Society is pleased to announce that the Central Park Zoo in Manhattan is now open. The 5.5 acre zoo is divided into tropic, temperate and polar zones and houses over 100 species of animals. The education program will focus on conservation, emphasizing the importance of preserving animals and their habitats.

School groups, of no more than 35 students, may schedule a visit from now through June 30. To register for a class visit or obtain further details, call the zoo registrar at (212) 439-6538 between 10am and 4pm Monday through Friday.

CITIZENS FOR A HUDSON RIVER ESPLANADE

This is a coalition of over 75 organizations, political and civic leaders. It was established in 1988 to support a revitalized Hudson River waterfront through the construction of an esplanade stretching from Battery Park City to 42nd St. then connecting to Riverside Park. If you share a commitment to a public Hudson River waterfront, contact the Parks Council at (212) 838-9410 for information about joining the coalition.

THE CITY GARDENS CLUB OF NEW YORK

Each year the Gardens Club provides 35-40 scholarships to the summer sessions for educators at the Audubon Ecology workshop in Greenwich, Connecticut. The dates are July 9-15, July 16-22, July 23-29, July 30-August 5, August 6-12. The cost for this one-week program, including tuition, room, board and materials, is \$425 per person. The City Gardens Club will provide scholarship assistance in the amount of \$350 toward a selected candidate's fee. To be considered for the scholarship, write (by March 26) to City Gardens Club of NYC, 755 Park Avenue, New York, NY 10021.

CLAY PIT PONDS STATE PARK PRESERVE



Teenagers and adults will enjoy these March activities at this Preserve in Staten Island.

Sunday, March 19 - "Spring Nature Walk"
1-2:30pm (All ages)

Saturday, March 25 - "Easter Egg Dyeing"
9:30-10:30am (Ages 15-adult)

Advance registration required except for nature walk. Nature trails open daily from dawn to dusk. Call (718) 967-1976 for information.

CON EDISON

The 1989 catalog of programs, exhibits and literature is being distributed to all schools in the company's service area. Copies of the 24-page publication are being made available also to civic, community and business organizations. The catalog describes 80 programs and films, 77 items of literature and instructional kits, and tours and exhibits available free through Con Edison's consumer education program. Nineteen of the offerings are new this year, and many catalog listings are available in Spanish or English. Educational programs and pamphlets are available for all levels of students, from K through career planning youth. A copy of the catalog can be obtained by writing to: Consumer Education Dept., Con Edison, 4 Irving Place, New York, NY 10003 or calling (212) 460-6905.

CONSUMERS AGAINST DISPOSABLE PLASTICS



An organization named "Consumers Against Disposable Plastics" has recently been formed. It is an informative advocacy group composed of individuals concerned with the increased use of disposable plastics in the marketplace.

In NYC, a bill introduced by City Councilman Sheldon Leffler (Intro.979-A) would ban the use of disposable styrofoam for the packaging and serving of food products. If this bill is passed, degradable material such as paper or reusable items would be used instead.

If you would like to know how you can get involved with Consumers Against Disposable Plastics, write to: Mary Hake, P.O. Box 8, Broad Channel, NY 11693.

THE CONSERVATION EDUCATION ASSOCIATION AND THE NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION



Explore the Rockies, attend workshops, and join symposia focusing on "Institutional Commitments to E.E." and "Inservice and Pre-service Teacher Training".

August 18-23 in Estes Park Center, YMCA of the Rockies

The 1989 Conference Theme is: "Working Together to Educate About the Environment"

For complete details about conference events, cost, registration and more contact the NAEE Headquarters at P.O. Box 400, Troy, OH 45373 or call (513) 698-6493.

CORNELL COOPERATIVE EXTENSION

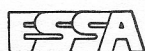
Cornell University Cooperative Extension in New York City offers a variety of educational programs to meet the specific needs of the city's people. It draws from its own research data base and statewide resources to help New Yorkers improve their health, better manage their time and money, enhance their environment, solve economic problems, enrich the family and community and through 4-H and other programs, develop tomorrow's leaders. To learn more about how it can help you, call (212) C-O-R-N-E-L-L.

COUNCIL ON THE ENVIRONMENT OF NEW YORK CITY



The Council on the Environment of New York City's Training Student Organizers (TSO) program decided to educate high school students about the problem of marine floatables and water pollution in response to the beach pollution events of this past summer. Students from Beach Channel H.S. Advanced Marine Biology class and the Honors Economics Program at Franklin Delano Roosevelt H.S. studied the issue during the fall and hosted a "Marine Floatables Symposium" on December 1 at Kingsborough Community College. The students also created and disseminated a booklet that discusses, through prose, poetry and essays, the problem of "Marine Floatables" and poor water quality. The event was a wonderful success. An active working group will hopefully emerge from the symposium in order to further deal with this environmental problem.

ELEMENTARY SCHOOL SCIENCE ASSOCIATION



Look what a nominal \$7.00 membership to ESSA can bring you. In addition to its professional offerings, ESSA members have the opportunity to join special adventure weekends. Make your reservations now for:

Boston/Cape Cod
May 27-29 (Memorial
Day Weekend)

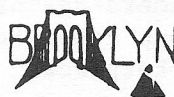
Whale Watching Weekend, \$199 per person (double occupancy).
Whale watching, visit the Boston Science Museum and Children's
Museum, and more.

Iceland
Nov. 3-7

\$479 (including airfare) per person (double occupancy).
Towering glaciers, volcanoes, hot springs, geysers, and more.

For more details about the trips, including deposit requirements and deadlines, contact Elementary School Science Association, Marilyn Check, 171-16 69th Ave., Flushing, NY 11365.

ENVIRONMENTAL QUEST, INC. (Brooklyn Sloop Club)



Help prepare the Hudson River Sloop CLEARWATER for its 1989 season. March 25 & 26 is the designated "work weekend". The group will meet in Saugherties, N.Y. For more information contact Mike Mann at (718) 941-9835.

FIELD TRIP IDEAS MAGAZINE

Teachers planning end-of-the-semester trips or looking ahead to the next school year may enjoy Field Trip Ideas magazine. This publication contains ads and articles about sites to visit, many in the tri-state area. To receive a copy for your school write to: Field Trip Ideas, P.O. Box 1235, Ridgewood, N.J. 07451-1235 or call (201) 894-8559

FOLKSONG IN THE CLASSROOM

This newsletter is full of ideas and songs to help teachers integrate music in the teaching of environmental education. Recent issues included "Touch the Earth - Native American Speeches", and "Bibliography, Discography on the Environment for Teachers, Librarians and People". To receive a copy, call Laurence Seidman at (516) 466-8546.

GATEWAY ENVIRONMENTAL STUDY CENTER



"Springboard To The Arts: Hands-On Learning" is a series of teacher workshops to be held on Saturday, April 29 from 9:30-3:30pm. Join them for: "I Hear and I Forget, I See and I Remember, I Do and I Understand", "Sunprints", "Collage: The Art of Found Objects", "On Wings of Song", "Can You Eat a Tree Cookie?", "Discovery Walks", "Pressing and Tasting Seaweeds", "Origami", and "A Third Dimension". For more info on this program including registration and fee or school group tours, contact: Mrs. Ruth Eilenberg, Gateway Environmental Study Center, Floyd Bennett Field, Brooklyn, N.Y. 11234 or call (718) 252-7307.

GREEN GUERRILLAS

The Green Guerrillas, a community gardening organization in NYC will hold the following workshops at The Liz Christy Bowery - Houston Garden:

April (date to come) - "Science In The Garden" - a teaching workshop for adults
Saturday, May 7; 12noon - "Photography In The Garden"
Tuesday, June 20 - "Perennial Workshop"

For complete details or to register, call (212) 674-8124.

INFORM

This non-profit environmental research and education organization recently published Garbage: Practices, Problems and Remedies, an inexpensive booklet sharing Inform's research in a concise yet comprehensive format. Ideal for educational purposes, it provides useful facts about the garbage Americans create and how we manage it. It also identifies possible waste management alternatives. This booklet is appropriate for elementary through high school levels. For additional information, contact Jerri McDermott, INFORM, 381 Park Avenue South, New York, NY 10016 or call (212) 689-4040.

THE INSTITUTE FOR EARTH EDUCATION

An Earth Education Workshop, sponsored by Starflower Consulting, will be held at the Queens College Center, Lloyd Harbor, L.I. on April 29.

The workshop will be conducted by Laurie Farber, an accredited trainer of The Institute for Earth Education. The fee is \$25. For more information and registration contact Starflower Consulting at (516) 938-6152. The Institute for Earth Education is an international, non-profit educational organization.

L.I.V.E. PROGRAM



These upcoming dates offer volunteers the opportunity to spend a day outdoors in Central Park or join an eight-week session to learn more about the park.

May 20, 21 - "You Gotta Have Park 1989". Individuals can sign up for this spruce-up during February and March.

Learning and Involvement for Volunteers in the Environment is part of Central Park Visitor Services, sponsored by the Central Park Conservancy in cooperation with the NYC Department of Parks and Recreation.

L.I. GREENBELT TRAIL CONFERENCE, INC.



Join in on the fun of outdoor recreation. Save these dates:

- | | | |
|-----------------------------|---|---|
| <u>Saturday, March 18-</u> | - | "Over Easy" - An easy overnight Greenbelt backpacking trip; |
| <u>Sunday, March 19</u> | | 3-5 miles walking; first-time backpackers welcome; must have own equipment. Call Shep, (516) 286-8297 after 6:30pm. |
|
<u>Sunday, March 19</u> | - | "End of Winter Beach Trek" - From Smith Point to Bellport Beach and back; 6-8 miles round trip; no reservation; meet 10am S.W. corner of Smith Point parking lot; bring lunch, dress warmly. For information call Ray or Mindy at (516) 473-6760. |

LYMAN LANGDON AUDUBON SOCIETY

The Lyman Langdon Audubon Society of Great Neck is a chapter of the National Audubon Society. Focusing on local issues, they are primarily an environmental association providing educational programs for all ages about a variety of topics beyond bird watching. This chapter also operates the Theodore Roosevelt Bird Sanctuary and offers free classroom programs as well. For more information about scheduled events for all ages call Jerry Bernstein at (516) 623-8255.

MAGIC MOMENTS WITH CLASS, INC.

Magic Moments with Class is the brain child of Peter Suchmann and Barry Shuman who, after many years of collecting and examining a wide variety of products, have introduced over a hundred items that "help teachers to teach." Magic Moments with Class provides science and math instructional tools for grades K-12. They offer an impressive assortment of scientific illusions, puzzles, toys, books, games and magic tricks (including suggestions for classroom use) at reasonable prices. Many items are appropriate for the Gifted and Talented and for Special Education. Teachers are also encouraged to inquire about teacher training seminars as well as inexpensive scientific premiums and fund raising suggestions. To request their new catalog call or write to:

Magic Moments with Class, Inc.
P.O. Box 761, Horace Harding Station
Little Neck, NY 11362
(516) 365-7279

MARTIN VAN BUREN CONSERVATION CLASS

SOAPP, Save Our Alley Pond Park, is a joint environmental project between Martin Van Buren H.S. and P.S. 213, schools which border Alley Pond Park. The H.S. students work in small groups, under the direction of Howard Gottehrer, with the elementary school's fifth grade science classes lead by Judy Intraub. Work has been done on a nature trail and an interpretive guide book, geared for students, is being developed in conjunction with the Alley Pond Environmental Center and Council on the Environment of New York City. This unique project also hopes to be the recipient of a United Federation of Teachers mini-grant.

NATIONAL AUDUBON SOCIETY

"Enrich the rest of your life...." Write for the new brochure featuring the 1989 Ecology Camps and Workshops for adults and children, National Audubon Society, 613 Riversville Road, Greenwich, CT 06831 or call (203) 869-2017.

NEW JERSEY SCHOOL OF CONSERVATION



The New Jersey School of Conservation is offering a spring environmental workshop, "Field Studies in Social Studies and Outdoor Pursuits", from May 5-7, 1989. The workshop begins with Friday dinner and concludes at mid-day on the following Sunday. The cost is \$70 which includes room, board, and all instructional services. For more information, contact N.J. School of Conservation, Montclair State College, Branchville, NJ 07826 (201) 948-4646.

NEW YORK ACADEMY OF SCIENCES



David Heil, host of "Newton's Apple" television program, will lead free workshops April 13 and 14 to provide educators with activities and materials for observance of National Science and Technology Week, which runs from April 23rd through the 29th. The April 13th workshop will be held from 9am - 1pm at Wave Hill Environmental Study Center in the Bronx and the workshop on the 14th will be held from 9am - 1pm at the AT & T Infoquest Center in Manhattan.

Three free science seminars for teachers have also been scheduled. Intended for junior high and high school teachers, the series includes two at the Academy's headquarters, 2 East 63rd St., Manhattan: "The Human Genome Project" on May 2, led by Dr. Richard J. Roberts; and "Computer Viruses" on May 23rd, led by David M. Chess. Another seminar, on "The Antarctic Ozone Hole" led by Dr. Michael Prather on May 11 will be held at Westchester Community College in Valhalla, NY. All three seminars will run from 4 to 6pm.

For further information and required registration form, call Talbert Spence, Director of Educational Programs, (212) 838-0230 ext. 223.

NEW YORK BIOLOGY TEACHERS ASSOCIATION



To become a member of this professional organization and receive their newspaper "Adaptation" you may request an application form by writing to: NYBTA Membership, P.O. Box 192, Brooklyn, NY 11236.

THE NEW YORK SCIENCE, TECHNOLOGY, AND SOCIETY EDUCATION PROJECT (NYS₂TEP)

Science, Technology and Society Education seeks to "...develop scientifically literate individuals who understand how science, technology and society influence one another and who are able to use this knowledge in their everyday decision-making." The project offers energy education workshops for educators throughout the state, trained resource agents to provide follow-up to teachers attending workshops, a series of energy booklets with activities correlated to Regents syllabus, a teacher's guide and much more.

This project is a continuation of the New York Energy Education Project and is co-sponsored by SUNY at Albany's Atmospheric Sciences Research Center, the NYS Education Dept., and the New York Power Pool and its member electric power systems including Con Edison. For further information contact NYS₂TEP, NYS Education Dept., Rm. 232-M EB, Albany, NY 12234 or call (518) 381-2202.



NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION

The Urban Park Rangers will be offering innovative environmental walks, exploring aspects of spring in parks throughout the five boroughs, this coming season.

- Saturday, March 25: 8am - "Birding the Bay" - ornithology walk along Little Neck Bay Park. Meet at Bayside Marina, off Cross Island Parkway.
- Saturday, April 15; 1pm - "Springtime on the Marsh" - explore Pelham Bay Park's salt marsh. Meet at the Pelham Bay Environmental Center, Sec. 2 of Orchard Beach.
- Friday, April 21; 8:30pm - "Evening Sounds of Spring" at High Rock Park. Meet at Nevada Avenue parking lot off Rockland Avenue/
- Sunday, April 23; 11am - "Seashore Wildflowers of Spring" in the salt marsh of Marine Park. Meet at the Avenue U parking lot.

For more information Contact Steward Desmond at (212) 860-1353.

NEW YORK STATE MARINE EDUCATION ASSOCIATION



Mark these upcoming events on your calendar!

- May 5 - NYSMEA Conference for Special Education Adolescents; held at Gateway National Recreation Area, Floyd Bennet Field. For information or to volunteer to do a workshop, contact Elizabeth Kominski at (718) 353-1462 (evenings).
- June 3, 4 - "Bridge Over Troubled Water" will be the theme of NYSMEA's annual professional conference at SUNY Maritime College at Ft. Schuyler in the Bronx. Contact Mary Ann Cicchillo evenings at (516) 783-8724 for details.
- July 23-27 - National Marine Educators Association 1989 Conference at the University of Miami - For presenter information and/or conference details, contact NYSMEA President Joseph M. Varon, 81-18 250th Street, Bellerose, NY 11426.

NEW YORK STATE OUTDOOR EDUCATION ASSOCIATION, INC.



Join workshop leaders, members and friends of environmental education for the 1989 NYSOEA Conference. Join them at Southhampton College from Sunday August 13 through Wednesday August 16. The conference, entitled "Time and Tide Wait For No One" will present workshops and presentations focusing on L.I. Environmental Issues, the Marine Environment and Environmental/Outdoor Education. If you are interested in receiving more information contact Bill Kolodnicki at (516) 922-3200 or Peter Schmidt at (516) 421-3526.



NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION

NAEE is a professional association established to assist and support the work of individuals and groups engaged in environmental education, research, and service. In order to facilitate this mission, NAEE offers an annual conference, publication opportunities, newsletter and position openings, film festival, speakers and consultants and an international network of environmental education organizations. If you teach K-12th grade, are involved in environmental research and the training of environmental professionals or belong to a nature center, museum or other non-formal site and would like membership information, write: NAEE, P.O. Box 400, Troy, Ohio 45373.

THE PARKS COUNCIL

The Parks Council is an association of New Yorkers dedicated to the protection, development and enhancement of the city's parks, open space and waterfront for the public's use and enjoyment.

Their Work-Study program, established in 1971, was developed to enhance maintenance efforts of the Parks Department and provide employment to low income teenagers. All youths who participate learn career development skills, gain environmental awareness through participation with the Urban Park Rangers or private environmental center, and enjoy an environmental field trip.

If you would like more information about this program or your environmental center would like to become involved, call Carolyn Angiolillo at (212) 838-9410. For youth participation, please see "employment opportunities" section.



POCONO ENVIRONMENTAL EDUCATION CENTER

Spring and summer at PEEC offers a variety of programs for educators, nature enthusiasts and other interested citizens. A sampling of these special weekends includes:

3/31-4/2	-	Project Learning Tree/Wild Facilitators Workshop	-	\$69.00
4/7-9	-	Become a Friend of the Earth	-	\$99.00
5/5-7	-	Walkers Weekend	-	\$99.00
5/12-14	-	Appalachian Adventure	-	\$99.00
5/26-28	-	Wildflower Photography	-	\$99.00
6/9-11	-	Pocono Paddling	-	\$99.00
7/1-4	-	Family Holiday Weekend	-	\$95.00
7/7-9	-	Delaware Downstream	-	\$99.00
7/9-15 (week)	-	Computer Camp - Beginners' overview	-	\$400.00

The cost of each program includes all meals, lodging and the complete program of speakers, exhibits and special events. For more information and registration please write to: PEEC, RD 2, Box 1010, Dingmans Ferry, PA 18328 or call (717) 828-2319.

PROSPECT PARK ENVIRONMENTAL CENTER



PPEC is offering the following spring events:

- Wednesday, March 22 - "Starlab Planetarium on the Equinox". Blast off to outer-space in this mid-week family event in the main auditorium of the Picnic House, 6:30-8pm.
- Saturday, March 25 - "The Park Prepares for Spring". Discover sure signs of spring in Prospect Park with Steve Garber. Meet at 1pm at the Picnic House.
- Sunday, April 30 - "A Workshop on Backpacking Skills" co-sponsored with the Sierra Club. Held at the Picnic House from 1-4:30pm.
- Friday, May 5, 12, 19 - "TGIF". After work birdwalks co-sponsored with the Brooklyn Bird Club. Meet at Picnic House at 6:30pm.

For more information contact M. Yrizarry at (718) 788-8549.

PROTECTORS OF PINE OAK WOODS



The Protectors of Pine Oak Woods, a Staten Island conservation group, is currently involved with several issues. One involves a potential suit against New York City to prevent the sale and/or improper development of the Farm Colony properties in Sea View. They raised over \$4000 for the S.I. Greenbelt Defense Fund for legal expenses involving this action. They are also working closely with NYC Parks Department, City Planning and the Reasonable Development of Staten Island South Shore Storm Water Management System, including the preservation of Arbutus "park" and Mt. Loretto "park". The group also sponsors activities such as their Annual Spring 10-mile Greenbelt Hike, meeting at Clove Lakes Park on May 13 from 9:30am-4pm. To obtain more information about this organization, or the programs they offer, contact Dick Buegler at (718) 761-7496.

STUDENT CONSERVATION ASSOCIATION

Do you know of students who are interested in working on environmental improvement projects for the summer? The Student Conservation Association sends work crews into the national parks to build and repair trails and structures. For more information, contact SCA, Box 550, Charlestown, NH 03603 or call Lenore Miller at (718) 761-3509.

SIERRA CLUB

Attention outdoor enthusiasts! A Sierra Club Environmental Workshop will be held at the Clair Tappaan Lodge in Sierra the week of July 15-22. Field explorations of diverse habitats, seminars, special mini trips and outdoor skill workshops will all be part of this family camping experience at Norden, California. The cost is \$200 for adults, \$185 for teens and \$150 children ages 7-12. For complete details and registration, write to: Sierra Club Educators Workshop, c/o Executive Office-Sierra Club, 730 Polk Street, San Francisco, CA 94109.



SOUTH STREET SEAPORT MUSEUM

Join the museum's Volunteer Force. Ship restoration and maintenance, boat building, teaching, special events, library cataloging, processing bulk mailings, sales, visitor information, editing publications, typing, assisting archaeologist and collections manager - these are some of the tasks being performed by the museum's 110 volunteers. To discuss how your skills and ability fit into the museum's needs, call Patricia Sands, Volunteer Coordinator, at (212) 669-9400.

TRANSPORTATION ALTERNATIVES



April 22, 1970 marked the symbolic birth of the modern environmental movement in the United States. The critical spirit of the 1960's coupled with growing awareness of human impact on the natural world brought millions into the streets of cities across the country to protest, learn, and begin to envision new ways of conducting basic life activity.

Twenty years later, despite some tactical victories on the part of the movement, practical work to reverse the poisoning and devastation has barely begun. EarthDays '89 has been conceived by Transportation Alternatives, Greenpeace, the Learning Alliance, Neither East nor West, Earth Alert, NYU Students for Environmental Activism and the Columbia Earth Coalition. A series of events designed to revive the spirit of Earth Day to publicize the impending crisis and potential solutions have been planned. EarthDays '89 hopes to heighten the level of visible environmental activism in New York City and invites you to participate in: A rally at Columbia University on April 16th, a series of seminars and talks organized by the Learning Alliance and the NYU Students for Environmental Activism, and a rally at Washington Square Park on April 22nd, joined by a bicycle ride from the Central Park Boathouse at 11:30AM. To help organize these events and plan others contact: Jon Orcutt (718) 442-0355 or (212) 334-9767.

U.S. ENVIRONMENTAL PROTECTION AGENCY



The U.S. Environmental Protection Agency urges that most homes be tested for radon. Radon is an odorless, colorless, radioactive gas resulting from the decay of natural radium in all rocks and soils. Radon from soil and rock under and around buildings, enters homes through cracks or openings. Homeowners can request radon detectors free or at cost by calling the Department of Health, 1-800-458-1158. The State Energy office also provides information on radon and remediation methods and a free packet on indoor air quality; call 1-800-342-3722.



WATSON SUMMER ECOLOGY WORKSHOP

Mark your calendar for a Watson reunion and picnic, scheduled for Thursday, June 8 from 5:30pm-8:30pm. Join Joan and Hy Rosner, the Watson staff and fellow Watsonites for this special evening in the woodlands of Alley Pond Park. Bring your BBQ grills and dinner; Watson will supply the cold beverages and dessert. For information and registration, call Kim Estes-Fradis at APEC (718) 229-4000.



Parents or educators who wish to obtain a free list of summer sleep-away and day camps for children with disabilities may send a self-addressed stamped envelope to: Joseph Varon, Leonardo Da Vinci Intermediate School #61, 98-50 50th Avenue, Corona, NY 11368.



Have you ever seen a 500 pound tuna? This is just one of the many kinds of fish sold at the Fulton Fish Market. Take a behind-the-scene look at the largest wholesale fish market in the U.S., learn fish marketing and nutritional tips, folklore and more. Tours begin at 6am on the last Thursday of the month. Limit 15; \$5.00 per person. Call me, M.J. Schaughnessy for more information, (718) 987-0614.

REMINDER - Mail your News From... items in typed form, with an organization name, address, telephone number and contact person to: CAROL ORTNER, Alley Pond Environmental Center, 228-06 Northern Boulevard, Douglaston, N.Y. 11363

On Friday, February 24th, Dr. HELEN ROSS RUSSELL, ethno-botanist, ecologist and master teacher, was honored at a reception celebrating "Helen Ross Russell on Film." Friends and colleagues gathered at the New York Academy of Sciences to view the 10 minute video on fall foraging for food, filmed at Dr. Russell's picturesque Pennsylvania farm. The video was produced by Judy Isacoff Thomas, filmed by Emmy-award nominee Alan Degen and recorded by Jonathan Slon, with support from Christadora, Inc., Hally and George Stone, Manhattan Country School and the American Nature Study Society.

NANCY BARTHOLD has been appointed Assistant Director for Environmental Education to the NYC Department of Park's Natural Resources Group.

L.I.V.E. (Learning and Involvement for Volunteers in the Environment) is one of 13 recipients of the 1988 Eleanor Roosevelt Community Service Award, sponsored by the NYS Governor's office for Voluntary Service. Mary Scent accepted the award on behalf of L.I.V.E. from Matilda Cuomo in Albany on December 15.

On October 19th, 1988, the Suffolk County Historical Trust bestowed its Heritage Award for 1988 on the Long Island Greenbelt Trail Conference, "in recognition of outstanding contributions to the preservation of our historical tradition and cultural heritage."

ENEAS SLOMAN, Steering Committee Member and Founder of the Alley Pond Environmental Center, will marry SEYMOUR ARKAWAY on Sunday, April 2nd at the Tarrytown House. They will reside in Peekskill. We wish them the best of luck and a lot of happiness. Congratulations.

RICHARD BUEGLER won the coveted Sol Feinstone Award in recognition of his efforts as co-chair and organizer of Protector of Pine Oak Woods and especially for his role as defender of the precious Staten Island Greenbelt, the nation's largest urban park. Sol Feinstone established this award in the 1970's to provide recognition to those who labor, without financial reward, on behalf of various environmental concerns. We congratulate our friend and colleague on this well-deserved honor.

The GREEN GUERILLAS received one of the prestigious 1988 Eleanor Roosevelt Community service Awards at a ceremony held in the Capitol Building in Albany. Governor Cuomo cited the Green Guerillas for "its efforts throughout the city in planting gardens and trees, and developing parks, picnic and play areas on rubble-filled land."

The Alley Pond Environmental Center is pleased to announce the appointment of AL FINKELSTEIN, APEC's new Executive Director. He has extensive experience with other not-for-profit organizations and seventeen years with the NYC Board of Education. Most recently he was executive director at The Floating Hospital. More than anything, Finkelstein says he loves the outdoors. "If I'm off work, you'll find me in a park."

The deadline for the next issue of the EEAC newsletter is APRIL 15th.

Please mark this date on your calendar and begin to prepare for publication.

Send your articles, illustrations, program information, employment opportunities, etc. to :

Kim Estes-Fradis
Alley Pond Environmental Center
228-06 Northern Boulevard
Douglaston, N.Y. 11363

We look forward to hearing from you!



LIFE HISTORY OF THE GREAT HORNED OWL



The Great Horned Owl is the largest and most common owl to be seen or heard in the Pocono Mountain area. Also known as the "winged tiger" of the woods, the Great Horned Owl inhabits forests and wooded farmland from the Canadian tree line to the southern tip of South America. With a wingspan of up to five feet and enormously strong talons, this nocturnal hunter can prey upon animals as large as skunks, woodchucks and turkeys, though rabbits and rats are most frequently caught.

As with most birds-of-prey, the female Great Horned Owl is larger than the male. An easier distinction between the sexes is found in the owl's resonant hooting, in groups of four or five in male, versus six to eight in the female. The Great Horned Owl may live fifteen years or more in the wild, nesting once annually each winter season. The mated pair will choose a nest site among heavy timber or large farm woodlots where they often modify old crow or hawk nests. Incubation of the eggs (2-5) is by the female only; the male assists in bringing food to his mate. After a month or more of incubation the eggs hatch on successive days and the young owls are tended by both parents. At about five weeks the young fledgeling leaves the nest and becomes adept at about ten weeks of age. It is during this initial independence that immature Great Horned Owls will practice, and hopefully perfect, hunting skills with their inherited keen senses.

The common name Great Horned Owl is derived from the resemblance of the feather tufts on the head to horns. These feather tufts may aid in camouflage or in picking up faint sounds. The location and capture of prey animals, however, is largely by the use of very sensitive hearing and eyesight. The night vision of the owl is far superior to human ability to see in the dark. Interestingly, the vision all owls possess is much like our own in that it is binocular vision; both eyes set to the front of the head. Perhaps this accounts for much of the human fascination with these secretive birds, especially in folklore. One attribute which owls share is their habit of coughing up pellets of undigestible fur and bones after eating prey. Such wildlife signs, on the other hand, are of great interest to naturalists and researchers for habitat and dietary information.

The Great Horned Owl is truly an impressive symbol of wilderness, whether seen perched atop a dead tree or heard calling to its mate on cool autumn evenings. Should our forests ever become too urbanized for this "cat owl" we will lose far more than his silent presence.



JODY ANNE KURCZEK
POCONO ENVIRONMENTAL EDUCATION CENTER

URBAN WILDERNESS: NATURE IN NEW YORK CITY (Continued from back cover)

You will find that Joel and Jean with the help of Bill Moyers, who wrote the inspired forward, have crafted a multipurpose work of science and art that will serve as a benchmark and inspiration for urban environmentalists, nature lovers, decision makers and educators. Like the real urban wilderness of our great, diverse city, Urban Wilderness: Nature in New York City, is a remarkable resource that you will surely want to discover, enjoy, understand, and ultimately cherish and save to share with future generations. If we can see past the spray paint, fire scars and rubbish that defiles our natural landscape and overcome the often misguided forces of development and urbanization, hopefully our children and their children will be able to enjoy and immortalize these natural features in their own words and media.

- JOHN KOMINSKI

Urban Wilderness: Nature in New York City; text by Jean Gardner, photographs by Joel Greenberg, forward by Bill Moyers; 1988; 131 pages; ISBN 0-9621060-0-1; published by The Earth Environmental Group, 265 Water Street, New York, NY 10023, (212) 285-0979; \$40.

WE THANK YOU

We would like to thank the following individuals and organizations for helping to make possible this issue of the EEAC newsletter: ALLEY POND ENVIRONMENTAL CENTER, PINA QUERCIA (APEC) for typing it, FLORENCE SHEDROFF (APEC) for editorial help, JOE SPANO (APEC) for illustrations, LISA COHEN for graphic skills, PATTI REILLY (NPS) for Snails to Whales flyer, CON EDISON and KEN KOWALD for printing this and all past issues, PROSPECT PARK ENVIRONMENTAL CENTER for mailing the newsletter to you, and especially to all the contributors, who again offer an insight into the diverse and dynamic world of environmental education in the the New York metropolitan region.

Carol Robert Kind

Environmental Education Advisory Council

EEAC is a special group of educators, youth leaders, environmental professionals and active individuals whose common aim is to encourage environmental education in the N.Y.C. region.

We are an organization that works on "synergy." Through us, members are able to pool their ideas and knowledge, speak with a single voice to influence educational policy, and, as individuals, share many pleasurable and interesting activities.

The main goal of EEAC's coming together is the education of today's young people. The future stewardship of our environment, an immensely important task, depends on their being informed and, as much as possible, experienced in environmental matters. We stress that young people should develop an appreciation both of nature in the wild and of the richness of urban and semi-urban environments, as well as an awareness of environmental problems to be solved.

By exchanging our knowledge, we at EEAC make each other better educators, By advising and influencing where we can, we may make education better as a whole.

MEMBERSHIP APPLICATION 1989

_____ Renewal _____ Member

NAME: _____

AFFILIATION: _____ POSITION: _____

BUSINESS ADDRESS: _____ PHONE: _____

HOME ADDRESS: _____ PHONE: _____

Your \$10.00 dues payment covers the cost of membership in EEAC for the calendar year 1989. Membership entitles you to receive the EEAC Newsletter, program information mailings and reduced registration fees for environmental education conferences sponsored by EEAC. Please complete this form and mail it with your payment to:

BERNARD KIRSCHENBAUM
12 GREGORY ROAD
SPRINGFIELD, N.J. 07081



Make your check payable to: EEAC

BOOK REVIEW

Urban Wilderness: Nature in New York City

Jean Gardner and Joel Greenberg are the co-directors of the Earth Environmental Group, a non-profit arts and educational collaborative dedicated to increasing public awareness of the uniqueness of New York City's natural and architectural environments. Jean is an eloquent speaker and writer, as well as a talented environmental activist and organizer who is deeply concerned and well informed about the state of our global ecology, and particularly the need to identify, maintain and improve those natural systems that are capable of sustaining a high quality life for those of us (human and non-human) who know New York as home.

Joel Greenberg is a gifted and sensitive artist whose black and white, large format photographic style reflects the classic tradition of masters no less than Ansel Adams, Carlton E. Watkins and William Henry Jackson. You will marvel at the poetic loveliness of the rocks, trees, waterways and open spaces that Joel has expertly captured on film in New York City's parks and public lands. These meditative images glow with the life that they depict as well as with their own, mysterious vitality. The moment I held this book in my hands I knew that I was about to have a very special experience. I was not disappointed, nor will you be.

Since 1976, the Earth Environmental Group has been searching out and documenting our City's special natural features and ecological sites. You are probably familiar with, and hopefully own some of their black and white photographic posters that depict scenes in parks throughout the five boroughs. The wetlands of Jamaica Bay hangs in our office. My wife, Elizabeth, hung their hauntingly beautiful images of snowy Central Park in her office in Harlem. Other posters grace the sterile walls and bulletin boards of classrooms, environmental centers and offices throughout the City, constantly reminding adults and children alike that there is much restorative beauty awaiting them in their public parks and open spaces.

This new book, a labor of love, contains 87 full-page photographs in this exquisite style accompanied by 30 pages of concise, well researched text that interprets the environments portrayed and calls upon us to reaffirm our commitment to environmental protection and improvement. If you, as I, shelve the books in your personal library according to category, you are in for a challenge with this wonderful volume. Is it a field guide or a travelogue? Should it go among works of poetry or spiritual growth? Is it a photography book or a resource on interpretation skills? Or is it an historical document?

(Continued on page 26)

ENVIRONMENTAL EDUCATION
ADVISORY COUNCIL (EEAC)

c/o Prospect Park
Environmental Center
The Tennis House
Prospect Park
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