By Sam Holmes

The Environmental Education Advisory Council, in July, called on City schools Chancellor Richard R. Green to get behind an environmental education policy for New York City and to support the hiring of a full-time citywide Coordinator of Environmental Education.

The EEAC Steering Committee resolution urging these moves - which will also be sent to the Board of Education - pointed out the need to implement the New York State Board of Regents Action Plan, Goal Seven, which decreed that, "Each student will acquire knowledge of the ecological consequences of choices in uses of the environment and natural resources."

Environmental education in New York City is currently provided mainly by some 40 non-profit institutions outside the school system, most of which are incapable financially of expanding to meet the schools' urgent need for environmental education.

(Continued on page 4)
LEGISLATIVE COMMITTEE

Nancy Wolf and Mike Zamm met with Ed Lawlor and Barry Jamason of the New York State Education Department (SED) on June 22, 1988 in Albany to discuss the statewide environmental education (EE) infusion effort. The meeting was a success. The Social Studies, Grades 7 and 8 (New York State and U.S. History), Social Studies 9 and 10 (Global Studies), and General Biology Syllabi, which were significantly infused with environmental concepts, have been distributed widely to teachers throughout the State. Social Studies 7 and 8 will be tested via a statewide school program evaluation test, while Social Studies 9 and 10 is keyed to a Regents Exam. General Biology is not tested through a statewide exam, but for the first time, the ecology section is mandated for those school districts who use the syllabus to satisfy the level 2 science requirement. It does appear that where tests are given the environmental information will receive attention since environment is one of the areas stressed in these syllabi. We will monitor this of course.

Unified Science, which has received the most comprehensive EE infusion, is not keyed to any statewide tests and initially will not be distributed as widely as the others, but SED is planning several innovative "marketing" strategies including reimbursing districts for allowing teachers to attend BOCES workshops on how to utilize the Unified Science manual.

We also requested that more EE concepts be placed in the K-6 art syllabus; Ed and Barry said they would move on this. We were concerned about Regents and General Physics as well, which received significant EE infusion, most of which was not included in the mandated sections. However, SED felt that Physics teachers would also stress the optional sections and these would be tested. Future efforts vis-à-vis textbook EE infusion and teacher training were discussed. We will report on these as they develop. There are many other syllabi being infused, some more than others. We will report on these in the future.

MIKE ZAMM

EEAC is now preparing a survey for teachers and administrators to determine if, where, and how natural areas and open spaces are utilized by schools. Your copy will arrive in the mail shortly.
EEAC News

JOIN EEAC ON A VISIT TO THE FIREBOAT HOUSE ENVIRONMENTAL CENTER AND THE ASPHALT GREEN/MURPHY CENTER – SATURDAY, OCTOBER 29, 1988

EEAC members and friends are invited to tour the Fireboat House Environmental Center, which sits on a pier in the East River at 90th Street just north of Gracie Mansion at Carl Schurz Park in Manhattan. Rose Blaustein, one of the major driving forces behind the redesign of the old and vandalized Fire Department barracks and boathouse into a showcase environmental education facility, will once again treat us to her hospitality and provide an overview of the past, present and future activities and services made available to the public at this unique learning site.

While gulls circle overhead and tugs, tankers, sewage sludge barges and lavish yachts ply the river waters between Manhattan and Mill Rock Islands, we will learn how the Fireboat House programs teach young people about estuaries, energy and environmental problems. Bring your bag lunch, a camera and a pair of binoculars. Eating lunch on the dock while watching birds and boats is a wonderful experience. Coffee and tea will be provided, but you may want to bring a cold beverage (in a recyclable container, of course).

After lunch we will tour the Murphy Center – the old arch-shaped structure which for decades served as a municipal asphalt plant. Today this completely re-modeled and equipped building, easily visible to motorists on the Eastside (FDR) Highway and to passengers on the Circle Line and other vessels in the river, serves as an exciting community sports, arts and learning center for youths and adults. It provides a perfect complement to the Fireboat House programs.

WHAT MAKES WINTER?

Plan now for material you wish to submit for the WINTER issue of the EEAC Newsletter. Your deadline is Jan. 7th: newsletters will arrive in the mail by March 7th. Send all information to Kim Estes-Fradis, EEAC Newsletter Editor, Alley Pond Environmental Center, 228-06 Northern Blvd., Douglaston, NY 11363.

Fig. 1 As the earth travels around the sun, the 23½° angle of its rotational axis gives us seasons. A given amount of solar radiation in winter (A) must travel through more atmosphere and strike a greater surface area of the planet than in summer (B).

From: Biologue, A Journal of Interpretation and Discovery in the Life Sciences, Winter 1988, Teton Science School, P.O.Box 66-8, Kelly, WY 83011, (307)733-4765
The resolution was accompanied by recommendations for seventeen specific responsibilities for the proposed Coordinator of Environmental Education. Among them were: communication of information about available programs; stimulation of new programs; involvement of parents; training of teachers, with emphasis on the relatively new State Education Department syllabi; development of evaluation systems; presentation of topical conferences and seminars; and establishment of awards.

Particularly important, in my opinion, were recommendations that the Coordinator foster school efforts to preserve nearby open spaces as learning labs; improve and increase the usage of school buses for environmental field trips; and review plans for new school buildings and renovations under the proposed multi-billion dollar school building program (so as to recommend needed environmental facilities, such as school gardens and planetariums.)

As this newsletter was being prepared for printing, there was still no response to the resolution from Chancellor Green or from Joseph J. Saccente, the Board's Chief of Operations, whom Green appointed to meet with EEAC. A spokesperson in Saccente's office said in August that the EEAC resolution had been passed for review to the office of Pearl Warner, acting head of the Office of Curriculum and Development. We are hopeful that we will receive a response by the time you receive this, and that we will be able to announce it at our October meeting.

In May, EEAC requested and was granted an appointment to meet with Dr. Green personally, but this was cancelled eight days before July 19, when the meeting was to take place. Green wrote that Saccente "is very familiar with my viewpoint and is ideally suited to represent me at your meeting." Steering committee members who represented EEAC at the July 19 meeting with Saccente were Ruth Eilenberg, Saundra Jones, John Muir, Patti Reilly, Nancy Wolf, Mike Zamm and Sam Holmes.

Saundra showed Saccente a set of 25 large color photographs showing the range of EEAC members' programs, which had been specially printed for the meeting with the Chancellor. Mike and Nancy presented an outline history of EEAC and its accomplishments. A working definition of environmental education, prepared by many hands but finalized by John Muir, was also presented.

The delegation stressed strongly that EEAC wants to meet with the Chancellor personally, and Saccente did not rule out that possibility. In a follow-up letter to Saccente I wrote that "To our membership and to the entire environmental community, the mere fact of this meeting would be a signal that the Chancellor recognizes the urgency of New York's environmental problems, and sees the importance of education as a partner in solving them."

EEAC has not yet presented the resolution to the Board of Education, preferring to wait first for Chancellor Green's response and any suggestions for changes and/or additions he might make. Steering Committee member Patti Reilly performed an enormously valuable service to the effort by typing and mailing drafts and final copies of the resolution to subcommittee and Steering Committee members.

If you would like a copy of the resolution and recommendations, please write to me at:
EEAC
c/o The Prospect Park Environmental Center
The Tennis House
Prospect Park
Brooklyn, N.Y. 11215 or leave a message at (718) 788-8500.
EEAC will hold its annual election of Steering Committee members on Nov.16, in a special meeting at the Manhattan headquarters of the United Nations Environment Programme.

An insider's look at what the United Nations is attempting worldwide for the environment, by Noel Brown, liaison officer for UNEP in New York, will be a highlight of the meeting.

We will meet from 4PM - 6PM at the UNEP auditorium at 2 United Nations Plaza DC2, Rm. 0803, between First and Second Avenue on 44th Street. Refreshments of a somewhat international nature will be provided to lift the spirits of members whose energy levels may have declined during the day.

All members of EEAC are urged to participate in the election, which will choose six members for the Steering Committee "Class of 1991" to replace those who are "graduating" from the "Class of 1988." In addition, a replacement will be elected to fill the "Class of 1989" spot vacated by Joe Varon, who resigned earlier this year because of the intensity of his other responsibilities. (Joe, who is President of the New York State Marine Education Association, among other things, will be greatly missed, but will continue to help EEAC in other ways).

An EEAC nominating committee will propose candidates for the seven positions, and ballots will be mailed out to all members before the meeting. The Nominating Committee would welcome suggestions by October 23rd for candidates for the Steering Committee, which can be mailed or phoned to Prospect Park Environmental Center (718)788-8500.

Those unhappy few who are unable to attend the meeting are urged to send in their ballots by mail.

STEERING COMMITTEE MEETING DATES

Steering Committee meetings of EEAC are open to all members, not just Steering Committee members. If you would like to become more involved in expanding/improving environmental education in New York City, please attend.

You will learn of ways the organization needs help and have a chance to introduce your own ideas. Steering Committee meetings scheduled for this fall and early winter are as follows:

**Saturday, October 29**
Fireboat House Environmental Center
(see page 3 for directions)
9:30am, prior to general membership meeting

**Wednesday, November 16**
United Nations, Environment Programme Office
(see page 5 for directions)
4pm-6pm, in connection with annual election meeting

**Wednesday, December 14**
Con Edison, Room 1648 S.
4 Irving Place, Manhattan
4pm-6pm

**Wednesday, January 18**
Gateway Environmental Study Center
Floyd Bennett Field, Brooklyn
4pm-6pm
Picture this. It is morning. Amid the cackles and cawks of nestlings, there is a rush of wings as the huge, stark-white birds spread their 4-foot wings and take to the air. Looking almost pre-historic, as their necks assume the definitive, tucked-in S-shape against the body, long legs extend behind them in graceful flight, they head out for feeding grounds. They will return later, full of small fish they will regurgitate to fill the crops of their waiting, growing chicks.

You may have recognized the birds from their description as egrets, symbol of the Audubon Society. But this scenario is not located somewhere in the southeast coastal wetlands; it's right here in New York Harbor. Yes, hundreds of egrets and other herons are laying eggs and raising chicks on several islands in the shadow of heavy industrial facilities, rotting old ship hulks, and garbage landfills that border our coastal waters. Yes, they are here, and they are surviving and reproducing in increasing numbers so it must follow that conditions are indeed suitable for these large wading birds.

There are Great and Snowy Egrets, as well as the smaller Cattle Egrets who have migrated in recent years from their origins in Africa, to South America and now have travelled north. There are also Little Blue and Green-backed Herons, Black-crowned Night Herons and the newly discovered breeding Yellow-crowned Night Herons. Their nests are crowded in the trees of Shooter's and Prall's Islands, plus a growing new colony at Isle of Meadows...all islands between Staten Island and New Jersey. There are additional colonies nesting on South Brother and other islands near the Bronx and northern end of Manhattan.

The adults fly to nearby marshes in New Jersey, Staten Island, (and Long Island and Westchester for the other colonies) where they have been returning year after year ever since the heronry was discovered about ten years ago by local birders.

It was also about that time that the U.S. Army Corps of Engineers undertook a study to determine if the islands and the debris surrounding them, including sunken vessels (one area was an important ship-building and repair facility during World War I), were a hazard to marine navigation. There were proposals to remove the islands, but the conservationists persisted and with the realization that these areas were vital to the birds' survival, the islands were saved from demolition. In 1985, the New York City Department of Parks officially took possession of Prall's Island, declaring it a sanctuary. New York City Audubon was given the responsibility for managing the rookery. Audubon selected Manomet Bird Observatory in Massachusetts and its heron expert, Dr. Kathy Parsons, to lead the 30 year study and management program, since herons nesting in Boston Harbor had been extensively studied by MBO.

Three members of EEAC, Dick Buegler, Stuart Lowrie and myself, serve on the educational advisory board of the study to determine how the students who attend the schools of New York City and New Jersey can be involved in learning about these birds and their habitat. Specific programs are currently being developed at Manomet with input from the local committee members.

Even if the nesting sites on the islands are protected by law and governments, it is vital that those who live in the surrounding communities understand the value of coastal wetlands so that these fragile areas may be protected from pollution, filling-in and other development. Only then can they continue to fulfill their function as feeding grounds for our newest breeding avian residents.

LENORE MILLER
The Council on the Environment of New York City's Training Student Organizers (TSO) Program trains students to organize environmental improvement projects in their schools and communities. Students learn about environmental issues, gain a sense of themselves as citizens capable of constructive action and deliver services to the City. During the Spring 1988 school term, nearly 750 students from 14 high schools, two colleges and three elementary schools organized 40 environmental action projects.

Environmental surveys were a highlight of this term's work. Students from Port Richmond H.S., A. Philip Randolph Campus and George Washington H.S. and Lehman College, interviewed nearly 600 citizens about their knowledge of lead poisoning and its effects on young children, and found that while 90% are aware of lead poisoning as a health problem in children, only 45% know about the simple, free diagnostic blood tests available from local health centers. The results were put in a report and given to the Department of Health's Lead Poisoning Bureau which will hopefully use the report as proof of the need for more educational services.

In a survey of over 3000 products in 41 metropolitan area drugstores, DeWitt Clinton and Lafayette H.S. students and Lehman College adult education students found that 75.7% had all or some plastic packaging, potentially signaling serious problems for management of our solid waste stream. The resultant report was given to the Environmental Action Coalition (EAC) for use in their overall report on nationwide packaging trends.

In another significant effort, TSO students from Madison, FDR, Lafayette and Beach Channel High Schools, working in cooperation with the National Park Service and the Gateway Environmental Study Center conducted a clean-up of four beaches in the Gateway National Recreation Area on Arbor Day, April 29th, and planted shrubs in adjoining areas. Susan Wagner H.S. students organized a clean-up on part of the Staten Island Greenbelt the same day.

It was a good term for TSO and we look forward to the Fall '88 term with enthusiasm.

This fall marks the opening of the New York City Department of Parks and Recreation's Pelham Bay Park Visitors Center. Located in the southern zone near Rice Stadium, the Center serves to better acquaint visitors with the natural resources and recreational facilities available to them within this, the City's largest park.

Situated in what was a long-abandoned building, the new center's structure was virtually rebuilt by Parks' talented technical services division from the Bronx borough office. Funding for the construction came from the City's Neighborhood Park Restoration Program. Louis Nestro, an Administrative Parks and Recreation Manager who had operational responsibility for the project says, "This is a good example of what we're here for. Projects like these show what we can do and that Parks has a staff of highly skilled mechanics and technicians."

The renovation of the facility includes the design and construction of office space for employees, restrooms for the public and an information and exhibit area. The Visitors Center is staffed and operated by Urban Park Rangers who perform a multitude of duties in helping the public to better understand their natural environment. Two artistically talented Rangers, Weldon Ryan and Anne Arrowsmith, designed the interior public exhibit space. Using a variety of art media, including recycled materials, Ryan and Arrowsmith have created a three-dimensional environment within the facility that recreates five of the major natural habitats found in Pelham Bay Park. Interpretive panels explain the importance of each of these environments and their relationship to one another.

For information about the Visitors Center's hours or to receive a list of Ranger tours, call (212) 430-1832 or 589-0096. Please pay us a visit and let us know what you think about our latest addition to Pelham Bay Park.

LIZ THOMAS-MOLINARI
VAN CORTLANDT AND PELHAM BAY PARKS
ADMINISTRATORS OFFICE
Even though the Native Americans who lived in the NYC area when European explorers and settlers arrived had garden plots and grew corn, beans, squash, pumpkins, Jerusalem artichokes and tobacco, their culture and life style was shaped by their woodland environment. They understood forest interrelationships and sometimes practiced forest management when they kept areas open for wild strawberries or cut or burned out young trees which were overshadowing blueberries. While their crops provided them with more than half of their food, hunting, fishing, and gathering were important sources not only of food but of medicines, clothing, utensils, tools, and other accouterments of every day life. Children learned to recognize plants early as they foraged with their mothers. They also learned about plant uses, habits, and seasons. When boys were well enough coordinated to draw a bow, they started to travel with their fathers but girls continued to learn about the many plants that they would need to know when they had their own household. Both boys and girls learned to recognize trees and to appreciate their many special qualities.

While many trees that grow in the city today came from Europe and Asia, there are still many native trees growing in the area. The chart that follows provides information on some of these trees.

<table>
<thead>
<tr>
<th>Tree</th>
<th>Location</th>
<th>Some Native American Uses</th>
<th>Suggested Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basswood. Most basswood planted in the city is European but for its smaller leaves and size it is the same as American Basswood.</td>
<td>Along streets, in parks and yards.</td>
<td>Inner bark was used for making twine for tying bundles, weaving mats, fastening bark, skins and mats to wigwams, fastening framework of wigwams, etc.</td>
<td>Basswood sends up sprouts at the base of the trunk. Get permission to cut them off. Make cord by rolling or twisting thin strips of bark. Use it to make a mat.</td>
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</tbody>
</table>

Flowers were gathered and dried for medicine, beverage, and flavoring food.

Iroquois carved masks on the living tree so the tree's spirit would be transferred to the mask. When complete they cut it free, hollowed it out and used it in ceremonies.

Gather flowers. Dry them. Make a pot of tea.

(continued on the next three pages)
<table>
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<tbody>
<tr>
<td>Sugar Maple</td>
<td>Sugar and Red Maple are rare in</td>
<td>Maple syrup. Burls were cut and burned off the tree and used for</td>
<td>If you have a maple on your property, break a small branch. In February when the sap</td>
</tr>
<tr>
<td>Red Maple</td>
<td>the city but Silver Maple is</td>
<td>making bowls.</td>
<td>is flowing, attach a clean bottle, and collect sap. How does it taste? Native</td>
</tr>
<tr>
<td>Silver Maple</td>
<td>common (as is the European</td>
<td></td>
<td>Americans cooked in sap. To make syrup it must be boiled until only 1/40 of sap</td>
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<tr>
<td></td>
<td>Norway Maple).</td>
<td></td>
<td>remains.</td>
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<tr>
<td>Willow</td>
<td>Along waterways in Central</td>
<td>The pliant branches were used for baskets, mats, and framing</td>
<td>Much willow grows on private property. Get some cuttings and use them for basket</td>
</tr>
<tr>
<td></td>
<td>park. In parks, in yards, along</td>
<td>wigwams. Medicine was made from roots.</td>
<td>making, or the frame of a miniature wigwam.</td>
</tr>
<tr>
<td></td>
<td>roads.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honey Locust</td>
<td>Common along city streets and</td>
<td>The sweet tissue between the green beans was eaten as a nibble.</td>
<td>In September, be a native American child and use the dried beans as a rattle. Beat</td>
</tr>
<tr>
<td></td>
<td>in parks.</td>
<td>It was also scraped out and dried for flavoring in cooking.</td>
<td>out a rhythm. (no whoo-who please!)</td>
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<tr>
<td></td>
<td></td>
<td>The big thorns (not always there on today's trees) were used as</td>
<td></td>
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<td></td>
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<td></td>
<td>fasteners.</td>
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<tr>
<td>Elm</td>
<td>American Elm is almost extinct</td>
<td>Bark was removed and used for wigwams, mats, baskets. Elm seeds</td>
<td>In April-May</td>
</tr>
<tr>
<td></td>
<td>but some Slippery Elm can be</td>
<td>were eaten, either as a nibble taken out of leafy wings, or entire</td>
<td>1-Try the tiny seed as a nibble.</td>
</tr>
<tr>
<td></td>
<td>found in parks as well as</td>
<td>&quot;flying saucers&quot; were put in stew pots for an early spring green.</td>
<td>2-Gather seeds and plant them.</td>
</tr>
<tr>
<td></td>
<td>European and Chinese ones.</td>
<td></td>
<td>3-Watch for birds congregating in elms to enjoy this fresh food.</td>
</tr>
<tr>
<td>Pines</td>
<td>In parks and yards; for sale in</td>
<td>Young needles were used to make a tea rich in Vitamin C. It was</td>
<td>Learn to identify pines; all of which have their needles in bundles: white, 5 in a</td>
</tr>
<tr>
<td></td>
<td>December.</td>
<td>&quot;medicine to cure scurvy,&quot; seeds and male catkins were used in</td>
<td>bundle</td>
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<tr>
<td></td>
<td></td>
<td>the stew pot and pitch was used for sealing joints of bark</td>
<td>red, 3-4 inches long, 2 in a bundle</td>
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<tr>
<td></td>
<td></td>
<td>containers.</td>
<td>pitch, short needles, 3 in a bundle</td>
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# Classroom & Field Activities

<table>
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<tr>
<th>Tree</th>
<th>Location</th>
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</table>
| Sweet Gum       | Parks          | Sap was used for chewing gum and for medicines.                | Try to find some of the sticky sap
<p>|                 | Yards          |                                                                | Gather the round fruits and use them in crafts.                                        |
| Tulip Tree      | In parks -     | The giant trunks were cut down, hollowed out with fire and     | Find a Tulip Tree and become acquainted with this beautiful giant.                      |
|                 | Inwood Park    | scraping, shaped into beautiful canoes.                         | Take a trip to Inwood as part of a Native American study.                               |
|                 | has many giant tulip trees. It also has a marker showing the circumference of a giant Tulip Tree that died in the 20th century and was there when the Dutch purchased Manhattan Island at that site. |                                                                |                                                                                  |
| Sassafras       | Parks          | Beverages and medicine were made from roots and bark.          | Make leaf prints of 4 differently shaped leaves. Sassafras root or bark may be purchased at natural food stores. It no longer is sold in drug stores since it is listed as a carcinogenic plant. So is coffee if you drink more than 5 cups a day. The mice that developed tumors were on a pure sassafras diet. Moderation is a basic rule for all good nutrition. |
|                 | Wild places    | Leaves were chewed.                                            |                                                                                       |
| Mulberry        | In parks       | Eaten fresh                                                    | Sample some mulberries (there is no fruit like it growing on trees).                    |
| Red Mulberry    | In yards       | Dried for use in the stew pot                                  | Do a survey of the birds who visit a Mulberry tree.                                     |
| is native       |                |                                                                |                                                                                       |
| (The berries are dark purple). | |                                                                |                                                                                       |</p>
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<tr>
<td>Hawthorn or Thorn Apple</td>
<td>In parks, along parkways and streets and in yards.</td>
<td>Thorns were used as pins. Some fruits were eaten raw or added to the stew pot. None of the Hawthorn fruits are poisonous but some are tasteless.</td>
<td>Examine a tree and decide where the name Thorn Apple comes from. Carefully feel a thorn. How would you rate it as a pin? What could you fasten with it?</td>
</tr>
<tr>
<td>Sumac</td>
<td>In parks, along highways, on abandoned lots.</td>
<td>The red berries were used to make a beverage.</td>
<td>Collect some sumac &quot;bobs&quot; (clusters of berries). Pull the berries off. Cover with cold water. Crush. Strain. Add more water and drink. This will taste like lemon - a weak brew is refreshing. Strong brews need sweetening.</td>
</tr>
<tr>
<td>Oaks (two groups)</td>
<td>Along streets, in parks, in yards.</td>
<td>Acorns were leached for food. Burts were cut and burned off trees and made into bowls.</td>
<td>How many kinds of Oaks can you find? Collect White Oak acorns and roast them at 250° F. They are edible when they are no longer bitter. Red Oak acorns must be leached. Local Native Americans did this by putting shelled nuts in a fiber bag in a stream or marsh. You can do this by putting them in an onion bag in a flush tank for several weeks.</td>
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To many people, an environmental problem in the rain forests would seem trivial. "The rain forests are a long way from here. Don't bother me with that - we've got our own problems here." However, the tremendous destruction that is going on everyday in the rain forests around the world carries with it impending catastrophic consequences to every living thing on the face on the earth. This article's goal is not to preach about the necessity of rain forests, but rather to give environmental educators a way to present the issues, cheaply and creatively.

A brief introduction of what rain forests are, what they contain and where they're located is essential. The participants, for the audience must participate, are then told they are departing on a journey to the Amazon River basin to view a lowland rain forest firsthand. With that cue, the participants are instructed to get comfortable and close their eyes and follow along on a journey using guided imagery. (Guided imagery is an educational tool with which a teacher can verbally lead learners on adventures.) It is my experience that guided imagery is best done with the participants lying on the floor with their heads on pillows in a circular formation with you as the hub and they as the spokes. The guided imagery starts in the U.S.A. and ends as they first enter a rain forest. As they enter the rain forest, a tape of rain forest sounds begin. At this point, they are asked to open their eyes. The room should be almost pitch black.) Preceding the entrance of the participants, pictures of rain forest animals were posted throughout the room and covered. The covers should be removed during the guided imagery. The next part of the presentation involves an interpretive walk through a rain forest. The leader has a flashlight and shines it about the room as the group walks around. Whenever the light falls upon a rain forest denizen, the leader imparts some pearls of wisdom and then moves on. (Length of program varies, depending on amount of time available or on the length of the tape.) When it is over, ask the participants to be seated and to cover their eyes. Turn on the lights, and then immediately present facts about rain forest destruction and its far-reaching consequences. (Be emphatic.) This is an issue I care a great deal about and wish others would too. For further information, write:

Eric Young
Lawrence Country Day School
Meadowview Avenue
Hewlett, NY 11557

A FALL/WINTER BIBLIOGRAPHY


A festival of harvest events highlights this fall’s calendar at APEC. Join us:

**Saturday, October 29** - "Autumn Jubilee" featuring honey, apple and pumpkin sale, children’s craft projects, scarecrow building, the "Naturalists" Gift Shop, origami and basket weaving demonstrations, 10 minute field trips, bird seed and feeder sale and more! APEC’s Annual Meeting will be held at 4pm and conclude with hot seasonal soup and brawny bread.

Among the many other program offerings, you are also encouraged to participate in:

- **Friday, October 21, 7:30pm** - Astronomy, Star-Gazing (3rd Friday of every month)
- **Saturday, October 22, 10:30am** - Fall Foliage Walk
- **Wednesday, October 26, 7:30pm** - Table Top Photography (pre-registration required)
- **Saturday, November 5, 10am-4pm** - The Ecology of Compost
- **Saturday, November 12, 8am** - Birdwalk at Jones Beach
- **Thursday, December 8, 7:30pm** - Changing Climate & Sea Level Rise

Contact Kim Estes-Fradis or Carol Ortner at (718) 229-4000 for meeting place, details and a free copy of the fall newsletter/program calendar.

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**BROOKLYN BOTANIC GARDEN**

A conference has been scheduled for Saturday December 10 to present ideas and information about urban gardening. Sponsored by the Horticultural Therapy Association of Greater N.Y., Cornell University Cooperative Extension and Brooklyn Botanic Garden, the "Accessible Gardening" program will be held at the Brooklyn Botanic Garden from 9am-4pm. Registration fee: $10. For more information contact Robert Coleman at (718) 662-4433.

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**BROOKLYN CHILDREN'S MUSEUM**

The Brooklyn Children's Museum offers an interesting and exciting assortment of programs for children. The museum, the world's first just for kids, is based on the philosophy of "hands-on" learning. Young people are encouraged, through exhibitions, School Group Adventures, and family programs, to "develop an understanding and respect for themselves, their cultural heritage and environment, and the environment and heritage of others."

Some of the programs include:
- "Nature's Balancing Act" (Grades 1-12) - an exploration of the relationships between plants and animals through the use of specimens and live collections - a single visit program.
- "Nature's Balancing Act" (Grades 3-12) - an in-depth look at adaptation, specialization, and food webs (a two-part series).

To make arrangements for a class trip, call (718) 735-4440 on Mondays, Wednesdays, or Thursdays, 10am - 4pm. After November 3, call on Mondays and Wednesdays only.

For more information:
The Brooklyn Children's Museum
145 Brooklyn Avenue
Brooklyn, NY 11213
Get your hands dirty in Central Park! Join L.I.V.E. (Learning and Involvement for Volunteers in the Environment) Program (sponsored in cooperation with the NYC Department of Parks and Recreation). Volunteers prune, plant, weed, rake, paint benches, clean lakes and pick up litter. They also receive horticultural and general park maintenance training from a staff supervisor, and periodic walks/talks on park related topics from experts in the field.

Student groups, first grade and older, interested in volunteering should contact L.I.V.E. the 2nd week in September. Call (212) 860-1336.

The annual L.I.V.E. Fall Clean-up will be held on Saturday, Oct. 29 from 10am-2pm, rain or shine. Participants will meet in Central Park at assigned locations. Call immediately to register.

A one-day symposium entitled "New York City Schoolyards" is being planned and sponsored by the New York City Coalition on Play and Recreation in collaboration with the Board of Education and NYC Parks and Recreation Department. The symposium will address how NYC schoolyards are used, how they might be used and how to improve them in NYC. For more details, including date, time, and registration information, contact Cindi Katz or Roger Hart at (212) 944-2334.

Jeanette Kahlenberg reports that Citizens Union Foundation has produced 1000 copies of Water-Watchers and Thirsty City. They are free of charge. If you would like one or more copies of these publications write: Jeanette Kahlenberg, Citizens Union of the City of New York, 198 Broadway, New York, NY 10038 or call(212) 227-0342.

The Environmental Policy Forum publishes a quarterly newsletter entitled "Eye on the Environment". Included are updates and articles about environmental issues, reports and commentaries about local and regional concerns. It also includes a schedule of their monthly forum topics. Call (212) 460-9250 to receive a copy.

The American Society for Environmental History and the Northwest Association for Environmental Studies have issued a call for presentations at their joint conference, "Solving Environmental Problems - The Past as Prologue to the Present." The conference, to be held at Evergreen State College, in Olympia, Washington from April 27-30, 1989, brings together scientific environmental management practices and a historical perspective for solving environmental problems. The deadline for presentation proposals is November 1, 1988. For more information about the conference, contact: Ms. Carol Simila-Dickinson
Lab 1
The Evergreen State College
Olympia, Washington 98505
ENVIRONMENTAL QUEST, INC. 

Don't miss these fall/winter events run by the Brooklyn Sloop Club, Environmental Quest:

- **October 31** - Pumpkin Fest in Brooklyn, under the Brooklyn Bridge at Fulton Ferry
- **November 20** - Transit Rally
- **December 10** - Merit Badge Fair for Scouts and Explorers
- **December 13** - Season Party at their Round Tables
- **January 28-29** - Winter Campout

For more details, contact Mike Mann at (718) 941-9835.

GATEWAY ENVIRONMENTAL STUDY CENTER

The events of this summer have dramatized the problems of our throw-away society. The following two sessions bring together the performing and visual arts to focus on recycling in a manner bound to stimulate young learners.

**Adventure in Recycling**  
11/9 3:45pm-6pm  
Storyteller Lisa Lipkin excites the imagination and unlocks the creativity in all of us.

**The Art of the Found Object** 11/30 3:45pm-6pm  
Julie Maurer will share her techniques of creativity from found objects and everyday materials.

Teachers interested in field walks for school groups at the Gateway National Recreation Area must make reservations for a class visit and for the preparatory teacher workshop.

For further information, call Ruth Eilenberg at GESC, (718) 252-7307.

CITY COUNCIL MEMBER - SHELDON S. LEFFLER  
16TH DISTRICT - EASTERN QUEENS

City Councilman Sheldon S. Leffler, chairperson of the City Council's Environmental Protection Committee, has been working vigorously to curb pollution in the New York City region.

In the past year, Councilman Leffler has introduced the following bills:

- **Intro.952**, the NYC Recycling Law, requires the recycling of 25% of the city’s garbage over a five year period
- **Intro.979-A**, prohibits the use of polystyrene-styrofoam food packaging
- **Intro.977** requires the upgrading of municipal and hospital incinerators and would shut down polluting apartment house incinerators
- **Intro.1057** adapts the state water conserving standards for new plumbing fixtures, thereby enabling the city to enforce those standards

(Continued on the next page)
COUNCILMAN SHELDON LEFFLER (Continued)

Councilman Leffler expects these bills to be considered by the Committee within the next several months and to be voted upon.

In the next legislative year, he plans to introduce bills to require:
- an incinerator ash management plan and a study of alternative methods of ash disposal
- an analysis of the costs of water conservation versus expanding our water supply system
- the city to use less polluting, alternative fuel vehicles
- an increase in the use of CFC (chlorofluorocarbon) recovery devices in gas stations and auto scrap yards

In addition, he expects to hold hearings on sewage treatment plant operation, medical waste disposal, asbestos control, and other pressing issues.

You may contact Councilman Leffler at his City Hall Office – 250 Broadway, 22nd Floor, New York, NY 10007 (212) 566-3748 or his Community Office – 80-45 Winchester Boulevard, Queens Village, NY 11427 (718) 465-8202, for more information.

MARTIN VAN BUREN HIGH SCHOOL

Howard Gottehrer, teacher of the Conservation Program at Martin Van Buren High School, in Queens Village, has once again planned a full semester of environmental activities and challenges for his students.

This fall, the class will expand on a planting project begun last spring to establish more native trees and shrubs around Alley Pond Park's Turtle Pond. The project is conducted in cooperation with the Natural Resources Group of the New York City Department of Parks and Recreation, P.S. 213Q and the Council on the Environment of New York City's Training Student Organizers Program. The class will be constructing trail markers on Alley Pond Park's footpaths. Students will learn tree and plant identification and guide students from the elementary school on nature walks. These projects are in addition to ongoing trail maintenance at the northern tip of Alley Pond Park, the wetlands. For additional information about the program, contact the Martin Van Buren High School biology department at (718) 776-4728 ext. 439.

NATIONAL SCIENCE TEACHERS ASSOCIATION

The National Science Teachers Association will hold their convention in December of 1989 in Atlantic City, N.J. The convention organizers are looking for presenters and evaluators for program sessions. This is a great opportunity for environmental educators to share information, ideas, resources, and other items with thousands of science teachers. Further details about attending and/or participating at the convention may be obtained by contacting Joyce Swartney, NSTA Program Coordinator, Associate Dean, Faculty of Natural & Social Sciences, Buffalo State College, 1300 Elmwood Avenue, Buffalo, NY 14222.
The New Jersey School of Conservation is planning the following workshops for the 1988-89 academic year:

- February 3-5, 1989   "Field Studies in Humanities and Natural Science"
- May 5-7, 1989        "Field Studies in Social Studies and Outdoor Pursuits"

The N.J. School of Conservation offers two and a half day, four day, and five day resident school programs in environmental studies. Graduate fellowships and internships in environmental education are available as well. For information on these and other programs, contact:

New Jersey School of Conservation
Montclair State College
R.D. #2 Box 272
Branchville, N.J. 07826
(201) 948-4646

THE NEW YORK BOARD OF EDUCATION

The New York Board of Education has a Computer Bulletin Board called Stack-Net: (718) 224-3658. If you have a computer and modem you might wish to explore what it has to offer.

THE NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION

The Urban Park Rangers offer school programs focusing on urban botany, animals, wildlife, pondlife, tidal marsh ecology, history, and graffiti education. Teachers may obtain more information and an application by calling the Manhattan Urban Park Rangers at (212) 397-3091.

Public programs led by the Rangers this fall include:

**Saturday, October 15**
1pm - "Duplicates, Cousins and Copycats" Learn about the fascinating phenomenon of divergent evolution. Meet: Kissena Park Nature Center; Rose Avenue and Parsons Boulevard, Flushing

**Sunday, October 16**
1pm - "Blazes of Autumn" Enjoy the fall foliage and learn why leaves change colors. Meet: Crocheron Park; 215th Place & 33rd Road, Bayside.

**Saturday, October 22**
1pm & 2:30pm - Queens County Farm Museum
Two tours of the farmhouse grounds. Meet: Farm; 75-50 Little Neck Parkway, Little Neck

**Sunday, October 23**
- "It's the Great Pumpkin" Enjoy a mug of hot cider and carve your own pumpkin. To register call (718) 699-4204.

**Friday, October 28**
- "Halloween Haunts" What magic will we weave, this Halloween Eve, on a walk through the park when the forest is dark! Come in costume and bring a flashlight. Call (718) 699-4204 to register.

To receive a schedule of walks and workshops, call (718) 699-4204 (Queens), (212) 548-7070 (Bronx), (718) 287-3400 (Brooklyn), (212) 304-3629 (Manhattan), (718) 816-5456 (Staten Island).

(Continued on the next page)
The City of New York Parks and Recreation's Sports and Fitness Division offers "Outdoor Challenges", a series of year-round adventure activities, free of cost to youths ages 15-18. Participants are provided with instruction and guided in such activities as white-water rafting, tubing, canoeing, hiking, camping, rock climbing and multiple-day backpacking expeditions. Trips are conducted in NYC parks, Harriman State Park, Catskills and Adirondacks.

The fall 1988 program will include canoeing, hiking, and backpacking trips. The winter program tentatively includes cross-country skiing, downhill skiing and winter camping. Anyone interested should contact the program at (718) 699-4233.

NEW YORK PUBLIC INTEREST RESEARCH GROUP

"On April 18, 1986, the Federal Food and Drug Administration (FDA) adopted a regulation allowing the sale of irradiated fruits, vegetables and meats to the general public. Food irradiation is a preservation process which uses the radioactive isotopes cobalt-60 or cesium-137 from nuclear waste.

...At the levels currently allowed by the FDA, the food itself does not become radioactive but causes chemical changes in the food... The FDA requires the labeling of produce and meats with a symbol known as the Radura (see below) and the words "Treated with Radiation" or "Treated by Irradiation."..." Processed foods are not required to carry such a label. For a Food Irradiation Fact Sheet, write: NYPIRG; 9 Murray Street; New York, NY 10007 or call (212) 349-6460.

OPERATION EXPLORE

Operation Explore is a unique program where kids learn about the outdoors by being there. How does the program work? Classes are chosen from each school district to participate in Operation Explore at the beginning of the school year. The program spans the school year and begins with teachers receiving special training. Like students, teachers are required to experience the entire program, including the overnight camping trip. Throughout the year, teachers use the environmental manual prepared by the program partners to augment lessons in all curriculum areas, with special emphasis on science. Field experiences include a one day trip to the seashore and a three day/two night visit to a farm and forest habitat. In the classroom, teachers guide students in group and individual projects.

Operation Explore is open to NYC public school students grades 4-6. To find out more contact: Operation Explore; NYS Office of Parks, Recreation, and Historic Preservation; 1700 Broadway; New York, NY 10019.
POCONO ENVIRONMENTAL EDUCATION CENTER

The following are upcoming events at the Pocono Environmental Education Center (PEEC) in Dingmans Ferry, PA. Cost for each event is per person and includes all programs, meals and lodging. Call (717) 828-2319 for more information.

October 21-23 - "Nature in Transition" with John Serrao
Field sessions will explore the mysteries of fall foliage, hawk and songbird migration, autumn wildflowers, fruit and seed identification. $97.00

November 4-6 - "Hawk Watch Weekend" - Watch the hawk migration from the Kittatinny Ridge, then come back to PEEC for informative presentations from noted experts. $67.00

November 4-6 and December 9-11 - "Microcomputers for the Chemistry Teacher" - a workshop focusing on the use of computers in the lab. Participants will be lead through the designing, building, and use of laboratory apparatus in conjunction with the computer and will keep materials for interfacing devices. $150.00

November 10-13 - "Family Holiday Weekend". $95.00

November 18-19 - "Wildlife Photography Seminar" with Leonard Lee Rue III. $69.00

December 2-4 - "Residential Centers Manager's Colloquium" - designed for people working as leaders in managing residential programs, nature centers, small museums, experiential education and outdoor recreation centers in the non-profit and private sectors.

Located 20 miles southwest of where NY, NJ, and PA meet, PEEC is ideally situated for conferences, short term institutes, workshops and environmental education in all forms. For more information about usage of the facilities, call PEEC at (717) 828-2319.

PROSPECT PARK ENVIRONMENTAL CENTER

The Prospect Park Environmental Center (PPEC) offers multi-session school programs that develop a variety of skills. "Spin: Shapes and Patterns In Nature" is a seven-session art/math/science program. "Sidewalks of New York" focuses on architecture/history and math in a ten session format. A six-session social studies program entitled "Discovering Brooklyn History" is also available as well as a variety of afterschool events. Adults and families can also join in the fun. A sampling of programs includes:

Sun. October 23
1 pm
"Prospect Park by Bike"
Meet: PPEC at the Picnic House in Prospect Park; Fee: $4.00

Sat. October 29
1pm - 3pm
"Victorian Flatbush"
Meet: In front of PS 139, Cortelyou Rd. & Rugby Rd.; Fee: $4.00

Sat. November 5
1pm - 3:30pm
"Green-Wood in Cast Stone"
Meet: Greenwood Cemetery Gate - 5th Ave. & 25th St.; Fee: $4.00

Sun. December 4
1:30pm - 3:30pm
"St. Nicholas Day at Lefferts Homestead"
Meet: Lefferts Homestead; Fee: $4.00

For a complete list of programs or further information contact PPEC at (718) 788-8500.
QUEENS BOTANICAL GARDEN

Once again the Queens Botanical Garden will offer a wide variety of courses for the fall season. Advance registration is required. Call the Education Dept. at (718) 886-3800 to request a complete listing of fall events or to register for courses below.

Sunday, Oct. 16
11am-5pm
The Fall Harvest Festival will feature items harvested at the garden, demonstrations, plants, music and more. Children can enjoy pumpkin and face painting. There will also be an outdoor market featuring local craftspeople.

Tuesday, Oct. 25
7:40pm-9:40pm
Ikebana - Japanese Flower Arranging; A workshop to learn how to enhance the beauty of flowers and natural materials through the use of form and line.
$50 Fee; $45 QBG members

Tuesday, Nov. 15
7:40pm-9:40pm
Natural Holiday Ornaments Workshop; Make tree decorations, miniature animals and other gift items from natural materials.
$30 Fee; $27 QBG members

Tuesday, Dec. 13
7:40pm-9:40pm
Holiday Centerpiece Workshop; Make a lovely focal point for your holiday table from greens, floral materials and ornaments.
$40 Fee; $36 QBG members

Teachers and students are also welcome. Call the Education Department for a brochure describing their tours and programs.

RAINBOW CHILD CENTER

Sandy Taylor, an environmental educator, storyteller, author and founder/director of the Rainbow Child Center offers nature and cultural programs. The varied programs are structured for primary and secondary schools, colleges, Scouts, nursery schools, civic organizations, churches, camps and parent/child groups. Structured nature explorations acquaint students with their intimate connections to earth and its nurturance. Activities reinforce basic academic skills such as problem solving, reading and writing. For details and other program descriptions, call (215) 525-4133 (Villanova, PA).

STARFLOWER CONSULTING

Starflower Consulting can provide you with quality environmental education and interpretive programming. They specialize in focused, dynamic and participatory experiences that will activate and inspire young learners. Their newest presentation, "Trashbusters", helps students in grades 4-8 understand solid waste. It teaches that some of our problems with garbage are caused by taking materials out of the natural cycles faster than they can be replaced. It also involves the students' pledge to reduce, reuse, and recycle trash. For information about these and other programs, contact Laurie Farber at (516) 938-6152.
Upcoming events from Staten Island Friends of Clearwater:

**Waterfront Awareness Day and Pumpkin Sale**

- **Date:** October 22, 1988
- **Time:** 11am – 4pm
- **Place:** Alice Austen House Park and Museum
  2 Hylan Boulevard
  Staten Island, N.Y.
  (on the waterfront, just north of the Verrazzano Narrows Bridge)
- **Happenings:** Environmental exhibits, games, crafts, goodies, stove soup, local folk musicians, and, of course, PUMPKINS to cook, carve, and eat!
- **Info:** Nancy Fiske (718) 442-3174
  Vivienne Shaffer (718) 816-4506

**Evening Concert**

- **Who:** Hudson River Sloop Singers
  Walkabout Chorus
  Local folk talent
- **Date:** November 19, 1988 (tentative)
- **Place:** Snug Harbor Cultural Center – Veterans Hall
- **Info:** Nancy Fiske (718) 442-3174

**TRI-STATE LEAGUE OF WOMEN VOTERS**

The World of Waste, a recent publication of the League of Women Voters, gives the facts behind the current crisis in municipal waste disposal. This report warns of serious problems ahead in hazardous waste management and suggests improvements in radioactive waste management. Chapters introduce the background and basic considerations in Solid Waste, Hazardous Waste, Radioactive Waste, and Federal/Military Waste, in addition to a Legislative Digest. Single copies may be purchased for $9.50 plus $2.50 handling by writing: League of Women Voters; Rochambeau School; 228 Fisher Ave; White Plains, NY 10606.

**UNITED NATIONS**

A special book signing of Small Energy Sources: Choices That Work, with author Dr. Augusta Goldin, is scheduled for Friday, October 28 from 3:30-5:30pm. The book, published by Harcourt, Brace and Jovanovich is suitable for Junior High School level through Adult. Pick up your copy ($17.95) and meet the author at Book Nook; 415 Forest Avenue; Staten Island.

**THE VANDERBILT MUSEUM AND PLANETARIUM**

As you plan your 1988-89 curriculum, remember the Vanderbilt Museum, especially on Monday, October 24 for the "Fifth Annual Vanderbilt Educator's Day". Educators from all institutions and all grades through college may participate. The staff will provide tours of both Mansion and Planetarium as well as a choice of workshops. After the program, please join Museum staff for a discussion of program offerings and plans for the future. The day will run from 9:30am to 3:30pm. Contact the Education Dept. at (516) 262-7850 to reserve a space. The registration fee of $5.00 includes lunch.

For information or a brochure about school programs, call (516) 262-7800.
EMPLOYMENT/ VOLUNTEER OPPORTUNITIES

CENTRAL PARK CONSERVANCY

The Central Park Conservancy, a non-profit organization founded in 1980 and dedicated to the restoration and maintenance of Central Park seeks to hire a supervisor of student volunteers. This involves training and supervising volunteers on site doing horticultural/maintenance tasks throughout Central Park.

Requirements include: NYS driver's license, ability to get along well with people, ability to speak in front of groups and good organizational skills.

Salary: $19,000/year; 35 hour/week
Position beginning mid-November

For information call Mary Scent at (212) 860-1336.

CHILDREN'S MUSEUM OF MANHATTAN

The rapidly expanding Children's Museum and Art Education Center seeks an energetic, committed individual to join a team of art and museum educators. The position, Museum Program Assistant, offers tremendous opportunity for growth. Call the museum at (212) 765-5905 for job requirements. Resumes should be forwarded to: Valerie Winkler, Education Director; Children's Museum of Manhattan; 314 West 54 St.; New York, N.Y. 10019

CON EDISON

Con Edison has part-time jobs available that offer full company benefits. The jobs are for Customer Field Representative and Customer Service Representative and applicants must pass placement exercises to qualify.

Customer Field Representative jobs may require extensive walking and some contact with pets. Customer Service Representatives assist customers who have billing and service problems.

Those interested should apply in the Employment Office at 4 Irving Place, Manhattan between 8:30am and 11am, Monday - Friday.

QUEENS BOTANICAL GARDEN

Many volunteer positions are available at the Queens Botanical Garden. Contact the Garden at (718) 886-3800 if you are interested in:

- the greenhouse
- outdoor gardening
- the plant shop
- plant information sharing
- educating group visitors
- clerical work

STARFLOWER CONSULTING

Starflower Consulting, an affiliate of the international Institute for Earth Education, is looking for part-time staff. Call Laurie Farber at (516) 938-6152 for information.
PAMELA WASSERMAN (Educators for Gateway) and JOHN KOMINSKI (NYC Board of Education) presented KEN KOWALD (Con Edison) with the third annual Bernard Kirschenbaum Award for Ken's "outstanding efforts on behalf of environmental education in New York City." The ceremony took place at the Gateway Environmental Study Center.

Welcome MARY YRIZZARY, the new Director of Public Programs at the Prospect Park Environmental Center.

EEAC Newsletter Editor KIM ESTES (Alley Pond Environmental Center) is happy to announce her marriage to MARTIN FRADIS on Sunday, October 9th at Temple Beth Shalom, Hastings-on-Hudson. They are residing in Manhattan.

Congratulations! To proud parents MIKE ZAMM (Council on the Environment of NYC) and JANE HEALY on the birth of their daughter ANNA on August 27th. She weighed in at a healthy 7½ lbs. We wish health and happiness to all of you.

DICK BUEGLER (Protectors of Pine Oak Woods) is the 1988 winner of the Sol Feinstone Award for Conservation Service, one of five awards given yearly nationwide.

JOHN MUIR (Prospect Park Environmental Center) was presented with the annual Environmental Quality Award in the category of Environmental Education from the U.S. Environmental Protection Agency.

EEAC Newsletter Assistant Editors, CAROL NEHR (Alley Pond Environmental Center) and ROBERT ORTNER (Council on the Environment of NYC) announce their upcoming marriage ceremony on Sat., October 22, at the Queens Reformed Church (corner of Springfield Blvd. and Jamaica Ave. in Queens Village). All are welcome to attend. They will reside in Middle Village, Queens.

NANCY WOLF (Environmental Action Coalition) was quoted in the August 31st issue of 7 Days. In an article called "Pollution Paranoia", by ecologist DAVID CAMPBELL, Nancy explains how ozone traumatically effects the trees of New York.

THERESA LATO (Bronx Council for Environmental Quality) recently celebrated her 76th birthday with local school children at a Parks Department sponsored party. Parks Commissioner HENRY STERN attended and a representative of Bronx Borough President FERNANDO FERRER presented Theresa with a Citation of Merit for her efforts to "Make the Grand Concourse Grand Again."
THOUGHTS ON ACQUIRING AN ENVIRONMENTAL EDUCATION IN NEW YORK CITY

When I started, it seemed very ironic to me to be studying the environment in New York City, the quintessence of human construction. I felt the irony sitting in a Geology 101 class at Hunter one afternoon, when most of the class of 60 voted that they thought the volume of a stream would be greater at its mouth than at its source. While studying streams and rock types in the middle of a sea of concrete felt odd, at least I'd had the chance to hike stream courses in the past and to observe them, which many of my classmates had not. If I felt myself separated from the natural world, they were clearly more so.

That irony, of course, was precisely why I had turned to environmental studies. Moving to NY after living in four far less concentrated cities, I'd been overwhelmed. I realized how essential green leaves and wide spaces had become to me. What exactly, I wondered, was it that makes city life so hard? Is NYC the paradigm for the future of America? For the world? If so, what was more important than understanding it as an environment?

Now that I'm nearing the end of my formal studies, my choice seems both more and less ironic than I'd thought. New York City is equally an environment as anywhere else (as I've explained to perplexed friends time and again), and through my studies I've learned to see it as such in two distinct senses.

First, I've learned to see the "nature" that is here. Through an acquaintance with geology, I can peel back the cement and the landfill and see the terminal moraines and outwash plains of Long Island in my mind, and the dip in the schist bedrock between Washington Square and Chambers St. in Manhattan. For a paper I reconstructed the vegetation of Long Island in 1609; now I know there really was a time when wild grapes and and massive white pines grew thick along coastal New York, and confused whales were found two miles up the East River. I can see the non-human structure in this environment, can begin to trace the evolution of the current landscape.

Second, I've realized that my original sense of irony came from an unconscious placing of humans outside of "nature". Nature to me was the non-human, the non-artificial—a very artificial conceptualization! We are one piece of nature with an extraordinary ability to effect the rest, so extraordinary that as a society we forget how much we have re-made our world. The geographer Yi-Fu Tuan talks about how the invention of cities transformed our relationship to the food we eat, to dark and light, and to heat and cold; now we resent the intrusion of non-human variables like weather. Cities structure our relationship with the broader environment, but don't change the essential questions humans have faced and continue to face anywhere in dealing with nature: how to organize space? how to obtain food? how deal with waste? where to get energy?

The split in my vision that led me to place humans in a category above nature echoes a split I've found in those who define themselves as environmentalists. On the one hand, there are the "nature-lovers", the traditional environmentalists, and on the other there are the urban problem-solvers, focused on social issues. Certainly limitations of time and energy force us all to choose relatively narrow areas of work, and thus often, one or the other. My personal resolution of this dichotomy is to try to incorporate both aspects—at least into how I think. I need to be a "nature-lover"; I need the awareness of geology and botany and ecology I've gained to give me perspective on human society in time and space. Understanding the natural history of coastal New York before the arrival of Europeans helps me imagine different futures for our relationship to this place, helps me build a vision of health and balance. But I want to take that vision into work on problems of the urban environment, because that is my environment; that is the landscape to which we belong for now.

MAYA MUIR,
STUDENT
NEW YORK UNIVERSITY
The Adventures of H. Sapiens

- by Robert Ortner

Tick...tick....tick....

Gaia's clock has been ticking steadily, like an old Big Ben alarm clock, for approximately five billion years. Time has not passed uneventfully, though. Gaia has seen, in her life, continents appear and disappear, join together and separate. Mountains have sprung up where there were none, and then slowly and inexorably, turn into piles of sand and gravel that are then sifted and redistributed across the planet by wind and water. Mountains reform, and the cycle repeats, over and over again.

Tick...tick....tick....

At some point, Gaia wept—her tears, combined with the salts of the land, created oceans. Within these primal seas, primitive life forms evolved. They multiplied and evolved—plants, as we refer to them, first, and then animals. The animals depended upon the plants for survival and exploited them. The plants depended upon the animals equally. The interactions of these life forms changed the physical and chemical conditions of their environment. Some did not adapt to the changing conditions and disappeared forever. New ones evolved and established themselves, and the cycle repeats, over and over again.

Tick...tick....tick....

Eventually, newly evolving organisms colonized the unoccupied land—interacting, evolving, forever altering the face of Gaia. As Gaia evolved, so did the life forms, and the cycle repeats, over and over again.

Tick...tick....tick....

After millions of years, a certain life form, an animal, evolved in such a way as to be able to walk upright (in a bipedal manner), to be able to grasp objects (in a prehensile manner), to be able to articulate (in an unheard of manner), and to be able to manipulate the environment to meet its needs in a manner, and to a scale, that no other life form could match. We shall call this life form, Homo sapiens—H. sapiens to its friends.

Tick...tick....tick....

H. sapiens, being a clever little beast, soon began to dominate the surface of Gaia. Its evolutionary advantages enabled it to make tools, cultivate plants, domesticate other animals, utilize resources, and build communities. Its numbers grew, and its range spanned 6 of the 7 continents and virtually every terrestrial biome of the planet. However, H. sapiens, in its own, inimitable egocentric fashion, thought itself to be superior to all other life forms and either forgot (to give it the benefit of the doubt) or chose to ignore (more likely) the Prime and Second Directives of Biological Survival: "THOU SHALT NOT FOUL THINE OWN NEST" and "THOU SHALT NOT DISRUPT THE NATURAL CYCLES AND BALANCES OF GAIA". In no time at all (geologically speaking), H. sapiens had done both.

Tick...tick....tick....

1987 and 1988 have offered examples of the consequences of H. sapiens's mischief. As stated in the advertisements, "Pay me now, or pay me later."

- Item - "Oxygen Levels Sink in LI Sound", Newsday, 5/3/87
- Item - "A Portion of LI Sound Has No Oxygen Or Fish", NY Times, 7/31/87
- Item - "New Concern Raised By Waste Dumping in Atlantic Off LI", NY Times, 8/31/87
- Item - Pollution of Summer '87 Seen As Oceanic Warning", NY Times, 9/13/87

(Continued on the next page)
H. sapiens, in its brief existence of only 4 million years, has certainly left its enduring and unerasable mark upon Gaia. The lifestyle it has created for itself—exploitative of Gaia's resources and contemptuous of Gaia's delicate balances and cycles—is indicative of its collective denouncements of the Prime and Second Directives of Biological Survival. In so doing, H. sapiens hastens its own demise. "Do not ask for whom the bell tolls," goes the saying, "It tolls for thee." H. sapiens would do well to heed Gaia's warnings. After all, Gaia will survive—with or without H. sapiens. And the cycle repeats, over and over again.

Tick...tick...tick....

"INFORMATION, PLEASE"

LONG ISLAND SOUND CITIZEN'S ACTION DIRECTORY

OIL SPILLS/CHEMICAL SPILLS

National Response Center (24 hrs/day) .............................................(800) 424-8802
U.S. Coast Guard: Connecticut .........................................................(203) 773-2464
(24 hrs/day) New York .................................................................(516) 473-3570
Connecticut Department of Environmental Protection
(CT DEP) Hazardous Material Management Unit ..........(203) 566-3338
New York Department of Environmental Conservation
(NY DEC) Spill Response Section ..............................................(518) 457-7362
Spill Notification (within N.Y. state) ..................(800) 457-7362

SEWAGE SPILLS

CT DEP Water Compliance Unit ...................................................(203) 566-5760
NY DEC Division of Water: Westchester County ..............(914) 761-6660
Nassau & Suffolk Counties .......................................................(516) 751-7900

WILDLIFE VIOLATIONS: FISH, WILDLIFE AND ENDANGERED SPECIES

CT DEP Turn-In Poachers Hotline (24 hrs/day) ..................(800) 842-4357
NY DEC Law Enforcement: Westchester County ..........(914) 255-5453
Nassau and Suffolk Counties ...................................................(516) 751-7900

MARINE MAMMAL AND SEA TURTLE STRANDINGS

OKEANOS Ocean Research Foundation .............................(516) 728-8013
Mystic Marinlife Aquarium ..............................................(203) 327-9786
We would like to thank all of the contributors to this Autumn issue of the EEAC Newsletter. Brimming with familiar features: EEAC NEWS, NEWS FROM...., EMPLOYMENT/VOLUNTEER OPPORTUNITIES, SPOTLIGHTS, and a BOOK REVIEW, we also introduce a few new ones: FEATURES, CLASSROOM AND FIELD ACTIVITIES, THINK TANK, and INFORMATION PLEASE. We strive to share information from environmental education organizations in the New York Metropolitan area and beyond. It is no surprise that this newsletter keeps getting bigger; the environmental education movement continues to grow. EEAC receives generous support from the following organizations and individuals, to help bring this news to you; the Alley Pond Environmental Center, Pina Quercia (who did all the typing), Con Edison (for printing this and all of our past issues) and the Prospect Park Environmental Center (for putting your newsletter in the mail). Thank you all! Remember, the deadline for the Winter issue is JANUARY 7th.

EEAC News

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 1988-1989

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AFFILIATION: ________________________ POSITION ________________________

BUSINESS ADDRESS: ________________________ PHONE: ________________________

HOME ADDRESS: ________________________ PHONE: ________________________

Your $10.00 dues payment covers the cost of membership in EEAC for the calendar year 1988-1989. 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

THE GREEN PAGES: 1988
A GUIDE TO NEW YORK CITY PARKS

Let your fingers do the walking, hiking, jogging, cycling, swimming and ball playing through the GREEN PAGES!

It has been a long time since the New York City Department of Parks and Recreation released an updated, pocket-sized directory to the 26,176 acres of parks, playgrounds and recreation areas within easy reach of almost every neighborhood in all five boroughs. The 48 page 1988 edition, produced through the courtesy of NYNEX Yellow Pages, is appropriately printed on green paper and filled with loads of information about the 1,543 properties currently managed by the Department of Parks and Recreation.

The Green Pages provides a brief timeline describing milestones in the history of parks and recreation in New York City, and a directory of commissioners, administrators, offices and hotlines from Henry Stern on down through the Urban Park Rangers and various Recreation Programs. It even features a centerfold—a 1987 map locating "Urban Oases", New York City parks of 100 acres or more. It is encouraging to see The Staten Island Greenbelt referred to on this map. However, I do recall that an earlier version of the parks directory included capsules of parks trivia, brief paragraphs about flora, fauna, culture and statistics that added vitality to the resource book and made it more readable.

Whatever your interest, from "Archery" to "Zoos", you will most likely find a site listing with a location and telephone number that will help make a New New Yorker out of you, or spice up a Big Apple visit for an out-of-towner. Pick up a copy at your borough office of the Department of Parks and Recreation or at The Arsenal, Fifth Avenue at 64th Street, New York, NY 10021. A number of environmental and cultural centers also have copies available for distribution. For more information call the Department's Office of Public Information at (212) 360-1309.

- JOHN KOMINSKI

ENVIRONMENTAL EDUCATION
ADVISORY COUNCIL (EEAC)
c/o Prospect Park
Environmental Center
The Tennis House
Prospect Park
Brooklyn, N.Y. 11215
(718) 788-8500