

Fermilab Prairie Project's New Interpretive Trail Instructs As It Enriches

The sweet smell of prairie grass drifts toward you as the day's heat rises from the earth. A wave of flowers ripples in a light breeze. You could be standing in the midst of a pre-settlement prairie hundreds of years ago, but more likely you are experiencing the newly dedicated Fermilab Interpretive Trail.

The Fermilab Interpretive Trail officially opened June 7, 1989, with the dedication of Fermilab as a Department of Energy (DOE) National Environmental Research Park. Sponsored by the DOE's National Environmental Research Park System, the trail was developed by the Lab's Prairie Restoration Committee.

"The motivation behind the trail is to let the public enjoy the prairie," said Finley Markley (TS/Engin.), Chairman of the Prairie Restoration Committee. It is also hoped that the trail will provide a unique opportunity to educate the public about this rare native ecosystem. The prairie restoration project began 14 years ago in the middle of the Main Ring, but was not accessible to the public. "The only time the public saw the prairie," said Markley, "was on special tour days or if they joined work teams going out onto the prairie." The trail circles a plot of land which is part of the prairie restoration project, and is accessible to the public during daylight hours. It consists of a .5-mile inner loop and a 1.2-mile outer loop located on the north side of outbound Pine Street, next to the Big Woods. Workers have re-seeded the land with native prairie plants. "In fact," said Markley, "we're deliberately accelerating enrichment in that particular spot."

"In addition to the interpretive trail plot," reported Rory Nelson, the Lab's ParkNet summer employee, "a 70-acre plot in the northeastern corner of the site was planted June 27, with 2400 pounds of matrix seed mix, by the Roads and Grounds crew. As of the last week in July, prairie grass seedlings were beginning to sprout in good number." Existing restoration plots were also enriched with seeds collected from nearby remnants and by transplanting seedlings. The enrichment efforts focused on prairie species either not abundant or not present on site.

Annual burns will allow the fire-adapted native prairie species to eventually out-compete weed and non-native plants. The area surrounding the trail is currently only three growing seasons old, but one can already spot plants and wildlife native to the Illinois prairie as it existed before settlers farmed the land. Nelson, who worked on the initial design for the trail, pointed out that what one looks for on the trail depends on who one is. "You can experience whatever you want to experience," said Nelson, "motion, colors, textures, the feel of being out in the open." Those interested in the scientific diversity of the prairie can observe its lushness, the interdependence of plant and animal life, or plant adaptation to habitat. Children tend to see the things adults sometimes miss: a monarch butterfly caterpillar clinging to a milkweed plant or a ladybug on a stalk of Indian grass.

Some of the native plants to look for include the two dominant

prairie grasses: Indian Grass and Big Bluestem. In July and August, two flowers along the trail are par-

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Distinguished Lecture Series Brings Picasso, Wilson, Kleppner to Fermilab

Fermilab's Distinguished Lecture Series brings to the Laboratory in late October a roster of speakers befitting the series' title.

On October 23, 1989, at 4:00 p.m. in Ramsey Auditorium, Emilio Picasso, Project Leader of CERN's LEP and a member of the CERN Directorate, will present a Special Colloquium entitled "LEP IS ON!"

Kenneth G. Wilson, researcher in elementary particle physics, will deliver the colloquium (title to be announced) on October 25, 1989, at 4:00 p.m. in Ramsey Auditorium. Wilson, Professor of Physics at Ohio State University, was awarded the Nobel Prize for Physics in 1982 for his theory of phase transitions.

Daniel Kleppner, atomic scientist and Professor of Physics and Lester Wolfe Professor at the Massachusetts Institute of Technology, will discuss "Eigenstates of Chaos" at the wine and cheese seminar on October 27, 1989, at 4:00 p.m. in Ramsey Auditorium. Kleppner is the recipient of the Davison Germer Prize from the American Physical Society.

A Midsummer Night's Dream at Fermilab

"Gentles, perchance you wonder at this show;/But wonder on till truth make all things plain." The truth is that there has been nothing but praise for the **Alexander Roy London Ballet Theatre's** production of *A Midsummer Night's Dream*, a full-length ballet based on Shakespeare's play from whence these words come. This evening of "sheer magic," complete with Shakespeare's fairy-tale enchantments, humor, mistaken identities, and lively dramatic action, takes place in Fermilab's Ramsey Auditorium at 8 p.m. on Saturday, October 7, 1989.

Formed in 1965 by Alexander Roy and Christina Gallea, the superb, 12-member Alexander Roy London Ballet Theatre is Britain's most internationally toured ballet company. The company has performed regularly throughout the United Kingdom, Europe, South-

east Asia and the Americas. The London Ballet Theatre's production of *A Midsummer Night's Dream* was choreographed by Alexander-Roy to Giacomo Rossini's "Sonatas I and IV for Strings" and



"Sonata for Cello and Double Bass." As the first British ballet production of Shakespeare's play, it premiered in 1980 to critical acclaim and has remained a popular success internationally.

The performance at Fermilab will mark the first time the Arts Se-

ries has presented a full-length ballet on its stage. Join the impish Puck, fairy King Oberon and Queen Titania, fairies Peaseblossom, Cobweb, Moth, and Mustardseed; and the beguiled lovers Hermia and Lysander, Helena and Demetrius, Theseus and Hippolyta as they move through reality and illusion. This is "a ballet to send you floating homeward on a cloud of euphoria!"

Admission to the Alexander Roy London Ballet Theatre's *A Midsummer Night's Dream* is \$12. For further information or phone reservations, call ext. ARTS weekdays between 10:00 a.m. and 12:00 noon, or 1:00 p.m. and 4:00 p.m. Phone reservations are held for five days, but due to ticket demand those not paid for within five working days will be released for sale.

- Tammy Kikta

URA Scholarships Require SAT

Candidates for Universities Research Association (URA) scholarships are reminded that scholarships are awarded on the basis of SAT (Scholastic Aptitude Test) scores. High school seniors are reminded to sign up for a fall testing date if they have not already taken the tests.

URA awards a number of scholarships to full-time employees' children who are currently high school seniors and will begin a four-year college degree program next fall. The maximum amount of the scholarship is \$3000 annually for tuition and fees and is renewable for four years if the student progresses in good academic standing.

Scholarship applications will be available after the first of the year and must be returned to Ruth Christ, MS 113, by March 1, 1990.

- Ruth Christ

Benefits Notes

Fermilab again has made arrangements with Corporate Benefit Systems, Inc., (CBS) to offer the supplemental life insurance program for you and your family. This program is voluntary and available to all active employees who have completed at least six months of service with the Lab. A letter will be mailed to the mail stations of employees hired between January 1, 1988, and February 1, 1989, describing the plan. All other employees hired before January 1, 1988, were given the opportunity to join the plan last year. However, if you wish to meet with the CBS representatives to ask questions or join the plan, they would be happy to do so. Please contact the Employee Benefits Office at ext. 3395 or 4361 to schedule an appointment for Tuesday, October 10, 1989.

- Paula Cashin

Upcoming Fermilab Arts Series Events:

Chamber Music -

New York Woodwind Quintet - November 4, 1989

Ragtime Music -

Max Morath: Living a Ragtime Life - December 2, 1989

Chamber Music -

The Leipziger Bach Collegium with Ludwig Guttler - January 13, 1990

FermiNews Schedule

Issue Date	Deadline
October 20	October 12
November 3	October 26
November 17	November 9
December 1	November 22
December 15	December 7
(last '89 issue)	

Controlling Chemical Hazards

You might be surprised by the variety of chemicals used at Fermilab. There are acids, bases, adhesives, epoxies, solvents, pesticides, heat-transfer and dielectric media, fuels, lubricants, and metal compounds. Chemicals can also be found in the ongoing activities of plating, photography, and even office work. In other words, Fermilab is no more free of chemicals than any other large research or manufacturing entity. These materials allow us all to accomplish our work; in some cases, a job cannot be done at all without the use of a particular chemical.

However, use of these materials carries with it a large degree of responsibility on the part of the user: caution against the potential for injury, illness, fire, or environmental contamination. Although the government has established regulations to minimize the likelihood of these problems, regulations are, of course, meaningless until we abide by them. What follows is a list of suggestions which you may find useful in controlling potentially hazardous chemicals at Fermilab. - *Tim Miller*

1. Take steps to understand the hazards and control measures for the chemicals you use. If possible, do this before procuring a chemical. Read the material-safety data sheet and the label for each product you use. Consult with your supervisor and safety personnel.

2. Use the least-hazardous material for the job at hand. For instance, try detergents instead of organic solvents (e.g., freon, acetone, alcohol); water-based coatings rather than solvent-based coatings; use no lead paint, use asbestos-free gaskets and non-PCB capacitors.

3. Minimize the amount of material used. Buy only what you need. Large chemical inventories can create large hazards, and there is little sense in paying for the disposal of out-of-date or unused material, and less sense in needlessly using up precious waste-storage space.

4. Always use protective equipment when called for. Eye protection is always a good idea. Other types of body covers, respirators, or ventilation may be needed, de-

pending on toxicity and level of exposure. Again: read the MSDS's and consult with a safety representative before using an unfamiliar chemical.

5. Know what to do in an emergency. Use the Lab's 3131 emergency phone number. If a hazardous material comes in contact with the body, the affected areas should immediately be flooded with water (15 minutes for the eyes, 5 minutes for the skin). Precautions should always be taken to prevent the release of a hazardous chemical into the ground, air, or water.

6. Dispose of chemical wastes properly. Collect chemical waste in properly labeled, appropriate, tight containers. Special labels are used for this purpose. The Safety Section collects chemical waste from local accumulation areas. Where possible, recycling should be used in preference to disposal.

Number of abandoned nuclear reactors in the world's oceans: 9
- *Harper's Index*

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ticularly abundant, Yellow Coneflower and Bee Balm, or Wild Bergamot Rosinweed and Blazing Star will become evident in future years. One can also spot Compassplants reaching for sunlight between the clumps of prairie grass. "Compassplants were named by the settlers," said Nelson, "because they could tell north and south from the alignment of the leaves." As the leaves align themselves north and south, their surfaces are exposed to the east and west, giving them maximum sunlight and helping them to compete with surrounding plants. "One of the things I like about this land-

scape," said Nelson, "is that it changes continually throughout the season. Most of the grasses will be over your head by the end of the growing season." In May the prairie plants are ankle-height. As the prairie grows, flowers appear at the same height as the grasses. By the end of the season even the flowers will be six to eight feet tall.

In addition to prairie plants, one can see insects, birds, and other prairie wildlife along the trail. Interpretive signs posted at intervals along the path help identify the most common of the prairie inhabitants. Depending on the time of day that one visits the trail, one may also see different wildlife.

"Certain flowers may close in the evening and only open during the full light of day," explained Nelson. "On the other hand, the birds are very active between five and six in the morning. In the evenings, if you are still and watch along the fence-rows, you may see deer." Another feature of the Interpretive Trail is its proximity to the ski trails of the Big Woods. There is a connection between the two trails, "so if you want, you can walk in the woods as well as the prairie," said Markley.

Nelson added that the interaction between prairie and woodland is another feature of an authentic prairie
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Activities Office

Fermilab's Basketball League

...is open to employees, visiting researchers, employees of the DOE office at Fermilab, current Security personnel, and adults 18 years or older residing in the same household with any of the above. Games are held at the Recreation Facility on Thursday nights beginning on October 26. A meeting of teams and/or team captains will occur on October 10 at 5:00 p.m. in the gym.

Refereed Winter Volleyball

...will begin play on October 23. Open sign-up will be in the gym on October 9 at 5:00 p.m., and team captains will meet on October 16 at 5:00 p.m. Games are played on Monday nights in the gym.

Low-Impact Aerobics

...will begin at the Recreation Facility on October 2. Classes will be held on Monday, Wednesday, and Thursday from 5:30 p.m. to 6:30 p.m. Classes are designed for the beginner as well as more advanced students, male and female. The fee is \$1 per class.

Gym membership is required for these activities. For more information or to join any or all of these activities, call Jean at ext. 3126. - *Jean Guyer*

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ecosystem. "As we learn more about historic natural systems," Nelson said, "we learn that the prairie exists within a series of systems: woodland, savanna, and sedge meadow areas, with complex interactions between all of them; you can't restore one thing and hope to have all the pieces."

In the future the prairie project wants to restore other systems asso-

ciated with the prairie. "We also hope to expand the public access trails," said Markley. A new education building planned for the south side of Pine Street may provide an opportunity for larger groups of visitors to experience the Interpretive Trail, as well as additional parking to supplement the dozen parking spaces currently at the trail site. Other plans involve the physical nature of the trail itself. "Our ultimate intention is that the short inner loop will have a very fine, hard-packed gravel surface suitable for disabled access. The ultimate goal is to make the inner loop accessible to everyone."

- *Christine Grusak*

Prairie-Seed Harvest

Seed harvesting for the Fermilab Prairie Restoration Project will occur on Saturday, September 30, and Saturday, October 28, in the Markham area. A van will leave Wilson Hall at 9:00 a.m. for those needing transportation. Volunteers will meet at the McDonald's restaurant on 159th St., two blocks east of Kedzie in Markham, at 10:00 a.m. Harvesting will continue until 3:00 p.m.

Harvesting at Fermilab will take place on Saturday, September 16, Sunday, October 1, and Sunday, October 29, beginning at 9:00 a.m. and ending at 3:00 p.m. Follow the signs from the intersection of Eola and Batavia roads. Lunch will be available in the Lab's cafeteria.

Harvesters are advised to wear field clothing and gloves; bring pruning shears if you have them. Paper grocery bags would be a welcome donation. Donuts and coffee will be served at both sites. For more information, call the Public Information Office at ext. 3351. In case of bad weather on harvest dates, call the Lab switchboard, 840-3000, to verify plans.

Cla\$\$ified Ad\$

FOR SALE Motorized Vehicles:

1982 VW RABBIT LS, 4-spd manual, 4 dr, excellent running condition, no rust, clean and like-new interior, 115,000 miles, \$1800 or best offer. Call Sue at ext. 4364 or 837-6972.

1983 OLDS DELTA ROYAL 88, 87,000 miles, great shape, \$4000. Call Terry at ext. 4248 or 513-5707.

Miscellaneous:

"FAT MAC" w/512 kbyte memory, internal 400-k drive, keyboard, and mouse. \$450. Call Hans Jöstlein, ext. 4546 or 355-8279.

STIHL CHAINSAW, 1 year old, Model 011AVEQ, 16-in. bar, 2.4 ci, 41cc, 1.5 kW, 9.7 lbs, includes chain guard, T-wrench, owner's manual. Excellent condition, original owner. \$150. Call Mark at ext. 4776 or 695-3263.

FREEZER, 20 cu ft, good condition, \$100. Call Gerry at ext. 3930 or 365-2961.

X-COUNTRY SKIS, waxless, Trak T-1000, 200 cm w/Salomon bindings and Salomon boots (size 40), includes poles, hardly used, \$150. GORTEX ANORAK JACKET, yellow, man's size medium, \$20. INDOOR BICYCLE STAND, ride your bike through winter, Supra trainer, also fits ATB, like new, \$50 (\$90 new). Call Amie, 892-5936.

SMALL COUCH W/MATCHING CHAIR, stripe pattern, very good condition, \$65. POTTERY OIL LAMP w/glass shade, \$10. COLEMAN STOVE, single burner, \$5. ICE CREAM MAKER, \$5. Call Dennis at ext. 2550 or 406-0035.

Real Estate:

HOUSE, 3 bdrms, 2-story, single-family home w/living, dining, family rooms, 2-car garage, central air, water softener, solar panels, located at Summerlakes of Warrenville, close to Lab. \$119,900. Call Bill at ext. 4597 or 938-0279.

BUILDABLE LOT, 5 miles north of St. Charles, 260 ft x 100 ft, quiet neighborhood, country setting w/mature oaks. Asking \$15,000. Call Terry at ext. 4248 or 513-5707.

FermiNews is published by the Fermilab Publications Office, P.O. Box 500, Batavia, IL, 60510 (312)840-3278 Editor: R. Fenner Ed. Assist.: S. Novack Circulation: S. Hanson - Fermilab is operated by Universities Research Association, Inc., under contract with the U.S. Department of Energy.