

FNA News March/April 2011



Website: www.fermilabnaturalareas.org

Blog: fermilabnaturalareas.blogspot.com

Contact us at fermilabnaturalareas@gmail.com or 630-840-4845

Fermilab Natural Areas (FNA), is a 501(c)(3) not-for-profit tax-exempt corporation formed in 2006:

- * to study and restore Fermilab's unique combination of ecological communities
- * to inform and enrich local residents' knowledge of Fermilab (FNAL), and
- * to contribute to the preservation of global biodiversity.

A Message from FNA President Rod Walton fermilabnaturalareas@gmail.com

Greetings! As you can see below, we have a full calendar of events for Springtime. We also have a number of features in this issue about some of the important work going on here at the Lab. Finally, check out the last page for a short report on our annual meeting. This gives me an opportunity to congratulate all of you who have donated and/or volunteered over the year to participate in FNA's success. Thank you!

As usual, if you have any questions or comments for FNA, please [email](mailto:fermilabnaturalareas@gmail.com) or call me at 630-840-2565.

FNA Calendar of Events

Mar 19 [Habitat restoration work day](#) resumes, *weather permitting*. Meet at 9 am in the [Lederman Science Center parking lot](#), work until noon. Please check the web page at http://www.fnal.gov/pub/about/campus/ecology/prairie/habitat_restoration.html and our article on page 2 of this newsletter.

April 7 Fermilab [ELM Committee](#) meeting, Wilson Hall, One East, noon

April 16 [Habitat restoration work day](#), 9 am - noon, meet at [Lederman Science Center parking lot](#)

April 19 Director's Woods native tree planting, 11:30 am to 1 pm, take shuttle bus from east side of Wilson Hall. Please dress appropriately - we expect muddy conditions!

April 20 Prairie seed planting, 11:30 am, meet at [Prairie Interpretive Trail](#), westbound Pine St.

April 21 E S & H Earth Day Fair, 11:30 am - 1:00 pm, Wilson Hall atrium

April 21 ["Third Thursday" Fermilab Lunchtime Clean-up](#), **NOON** to 1:30 pm. Meet outside Wilson Hall's east side; shuttle bus & cleaning gear provided, picnic lunch served afterwards. (Note special start time due to E S & H Fair).

April 22 Presentation by Ryan Campbell: "Fermilab Natural Areas as a Restoring Force?" Noon in Fermilab's Wilson Hall, room 1 West, atrium level.

April 26 Guided woodland wildflower and spring butterfly walk, 11:30 am, meet at [Prairie Interpretive Trail](#), westbound Pine St.

May 3 Arbor Day tree planting (rain date is May 5) All trees, some tools, professional help, and lunch provided. [Southwest corner of Batavia Rd & Road B](#)
<http://www.fnal.gov/pub/about/campus/ecology/prairie/arbor.html>

May 5 Fermilab [ELM Committee](#) meeting, Wilson Hall, One East, noon

May 19 ["Third Thursday" Fermilab Lunchtime Clean-up](#), 11:45 am (sharp!) to 1:30 pm

May 21 Third Saturday [Habitat restoration workday](#)

Watch your email or the [FNA Blog](#) for last-minute announcements from FNA about changes in plans, or additional events.



Fermilab



A Closer Look at Fermilab's Arbor Day; Rod Walton, Fermilab

Fermilab has had a [long tradition](#) of participating in Arbor Day. The first trees planted were in the National Accelerator Lab Village [in 1969](#). This year, please join Fermilab and FNA volunteers on Tuesday May 3rd to celebrate Arbor Day. (In case of rain, the date will be moved to May 5th). Since 1994, Fermilab's Roads and Grounds crew has sponsored this noontime event. In the last 17 years of Arbor Day activities, we have filled in approximately 142 acres with over 1300 native trees and shrubs. Rather than simply planting trees, the overall effort has been to create a continuously wooded area including the Big Woods and the woods in the vicinity of the Director's House in the northwest corner of the site. At the completion of this project, there will be one continuous forest of over 500 acres, instead of two unconnected, much smaller, wooded patches. This will create more opportunity for deep woods species and decrease the "edgy" habitat that tends to erode the quality of the forest. Look for [more details on time, place](#) and other information [in the blog](#) or [the FNA website](#).



Our Habitat Restoration Efforts; Barb Kristen, Fermilab

About eight years ago, Bob Lootens, Kent Collins, and I got together to discuss how to create a group of volunteers for restoration at Fermilab, similar to how the County Forest Preserves manage their acreage. I was willing to organize and lead it as long as Fermilab's Roads & Grounds (R&G) group could give us projects to work on, and provide one groundskeeper to guide the volunteers. The first project we worked on was the path between Wilson Hall and the Lederman Science Center. There was so much non-native honeysuckle, rose, and buckthorn along that path that no light ever got to the ground. Since that time R&G has sown many native plants along the path which can be seen in the spring.

The group takes its lead from R&G, working in smaller areas in which the groundskeepers don't have the time to work. We have cut and herbicided brush in many areas of the site; pulled garlic mustard; harvested, processed and planted all types of native seed; and planted water-loving plants around the MINOS pond. We use small hand saws and hand cutters which are provided by the Lab. The only thing needed is the desire to see the Fermilab site return to native vegetation. Join us as we work to revive natural areas at Fermilab by clearing away non-native brush to encourage native woodland flowers and trees to grow. The diversity of plants will continue to expand with your help. Our [habitat restoration work-days](#) aren't all physical labor: the last half hour or so of most work days is spent learning about native plants or watching the many birds that call Fermilab their home.

Fermilab's Prairie Seed Rate Planting Study; Ryan Campbell, Fermilab

As Fermilab's consulting ecologist, I recently spread seeds at Fermilab with the hope to watch them grow over the coming years. It has been a while since Fermilab has planted new prairie and I was ready. But with this prairie, I was interested in answering a specific question. How many pounds of prairie seed mix are necessary to successfully create resilient, biologically diverse native grassland? Is it ten pounds per acre? Thirty? As much as seventy?!

Bill Kleiman, project director of [The Nature Conservancy's Nachusa Grasslands](#), planted a prairie in 2006 to answer this question. His results suggest that fifty pounds per acre (of a 150+ species mix!) will do it. I knew the prairie at Nachusa grew in very sandy soil, quite different from Fermilab's mostly clay loam, and that the soil composition could make all the difference. So I worked at Fermilab with volunteers, interns, Roads & Grounds staff, and many others to collect seed from over 100 native prairie species from May to November.

This was no ordinary prairie planting though. It required replications of 10 meter by 10 meter plots and buffers, and a space within former agricultural land. With the generous help of Fermilab's Road & Grounds group, especially Joe Pygott, Mike Becker, and Bob Lootens, I was able to set up this new planting experiment. A total of 117 native species of prairie grasses, wildflowers, sedges, and shrubs were carefully weighed and made into the different mixes. With luck and persistence on our side, the seed mixes were spread into their plots. Only hours later the first inches of snow fell, tucking them in to sleep until spring.



Seed's-eye view of Ryan and Joe preparing the experiment plots.

R. Campbell



Early Spring Butterflies; Tom Peterson, Fermilab

Every year I look forward to those first sunny 65 degree days, typically in early or mid March here in the Chicago area, not only because of the nice opportunity for a walk outside, but because the first butterflies of spring may be flying on those days. It seems like a strange time of year to search for flying, adult butterflies. No flowers are yet blooming, trees and bushes are still without leaves. Just a brown mat of wet leaves coats the forest floor.

But in the woods, butterflies which overwintered as adults, including the eastern comma [upper right], gray comma [lower right], and mourning cloak [lower left], may be flitting around. They spent the winter under loose bark or in a hole in a tree. A sort of chemical “antifreeze” in their blood prevented freezing during the cold winter temperatures, but nevertheless, the butterflies were entirely immobile. Being unable to flee from a predator during the cold winter days, they depend on remaining unseen for survival. The undersides of the wings of each of these species are very well camouflaged, with mottled gray and brown patterns like bark or dead leaves, so that with wings folded these butterflies blend in with their surroundings.



Butterflies require warm bodies in order to fly and use the sunshine for warmth. Sunny openings in the woods are the best places to spot them during these first warm days of spring. The flash of the orange upperside of the eastern or gray comma, or the appearance of the yellow edge of the upperside of the mourning cloak is a welcome sign of spring in the otherwise still brown and gray woods.

All butterfly photos by Tom Peterson.

For more photos and details, follow the links:

<http://tdserver1.fnal.gov/peterson/tom/Butterflies/EasternCommaWinter.html>

<http://tdserver1.fnal.gov/peterson/tom/Butterflies/GrayComma.html>

<http://tdserver1.fnal.gov/peterson/tom/Butterflies/MourningCloak.html>



Unusual Winged Winter Visitor; Dave Spleha

Most of Fermilab’s winter resident and visiting birds are similar to those of other local natural areas. The Lab’s unique open bodies of water experienced in wintertime, provide an added level of diversity not found in most other area locations. Occasionally, these open-water areas produce a special surprise. That happened the first Sunday of February when a bird was spotted on one of the corrugated separators in the Main Ring (Tevatron) moat. It was the size of a good-sized sparrow, but its stature was different. We then noticed the tail bobbing and realized we were viewing an American Pipit. This was the only winter viewing of this species in Fermilab since record keeping began. It is typically only a migrant in the Chicagoland area. (See the Fermilab survey records for this species, and photo at <http://www.fnal.gov/cgi-bin/ecology/wildlife/display?American+Pipit>).

As interesting as this rare sighting was, the bird’s actions were equally as interesting. It would pick at the algae growing on the top of the corrugated separator, probably searching for crustaceans, worms or seeds. The bird would work its way along the separator and occasionally drop over the side and pick items off the vertical front of the separator, then return back to the top edge feasting on its catch. The following week the pipit was relocated along the shoreline of one of the Main Injector moats.



Great Blue Heron foraging along one of the Main Injector moats.



Even though the pipit is not really considered an aquatic species, its close association with water allowed us to locate and observe this bird. Seen recently and pictured here are a couple of the more regular water birds found associated with Fermilab’s open winter waters.

All bird photos by Dave Spleha.

Common Merganser in Main Ring moat



Our Annual Meeting; Jolie Macier, Fermilab

Fermilab Natural Areas' [fourth annual general membership meeting](#) was held on February 17, 2011. Along with the standard business of electing Directors and reviewing the financials, meeting attendees received an update on the latest FNA activities in President Rod Walton's "year in review" presentation. In addition, Fermilab Ecologist Ryan Campbell posited that the primary goal of restoration ecology is biological diversity, in his presentation entitled "Fermilab Natural Areas as a Restoring Force?". For those who missed this comprehensive presentation on the goals and efforts of Fermilab and FNA's ecological efforts, Ryan will reprise his talk during Earth Week, on April 22, 2011, at noon in Fermilab's Wilson Hall One West conference room.

For Your Reference

For help with plant identification, visit the website created by the Fermilab Science Education Office:
http://eddata.fnal.gov/lasso/plant_search/search_kids.html

For Sale by FNA

Perfect for any weather, FNA has long sleeved and short sleeved tee-shirts for sale. Both sport the FNA logo on the front, and our website on the back. Short-sleeved shirts are \$15 and long-sleeved are \$18. Order yours by calling us at 630-840-4845.

Rain barrels will be available through FNA. Details "to be determined" soon.
Call us at 630-840-4845 if you are interested in purchasing a rain barrel.



Membership/Donations

<http://www.fermilabnaturalareas.org/membership.html>

Help us enhance Fermilab's ecology.

FNA is a 501(c)(3) not-for-profit charitable organization. All donations to FNA are tax deductible.
Donations can be made in memory or honor of a friend or loved one.

Benefactor	\$2,500 and up	Sponsor	\$100
Patron	\$1,000	Contributor	\$50
Supporter	\$500	Member	\$25
Donor	\$250	Student/Youth	\$15

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Thank you! 