



BRUSH PILES

NORTH BRANCH RESTORATION PROJECT

FALL 2007

ANTS = A SIGNIFICANT AND DIVERSE FAUNA

by Janet Mrowka

At the 2005 seed-processing workday, John and Jane Balaban encouraged me to pursue my interest in ants. In the spring, to pique my curiosity, they emailed me a photo of a beautiful small orangish-brown, glossy, smooth-looking ant they encountered at Harms Woods. In 2006, Dr. Steven Frankel from Northeastern University, provided me the opportunity to study ants by helping me obtain a permit from the Cook County Forest Preserve District to collect ants at Harms Woods.

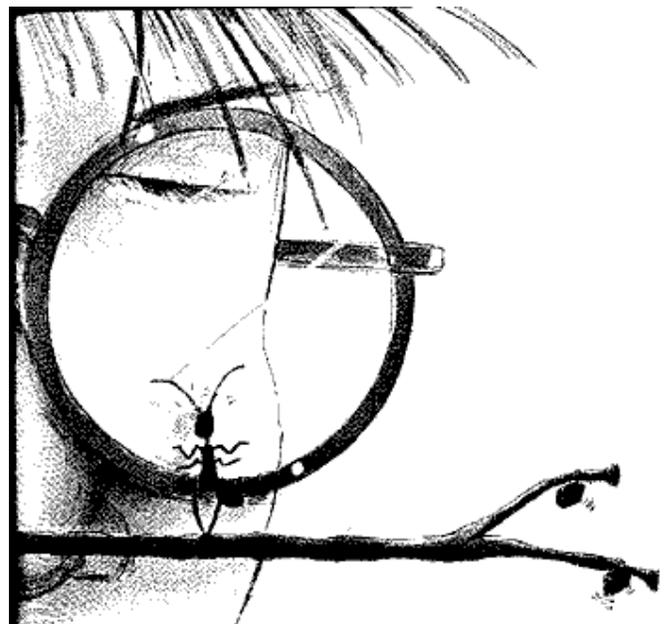
Most people do not give ants much thought, but they have a variety of important functions within the ecosystem. They both impact other insect populations and help protect plants by curbing herbivory. They are major nutrient recyclers. Through nest building and foraging they help breakdown rotting wood and aerate and enrich the soil. Some species plant the seeds of spring ephemerals. Others tend aphids similar to how people raise cows.

If the amount of sunlight changes significantly at a site, perhaps because of buckthorn colonization, then over time certain ant species will not found new colonies in that area. Conversely if a degraded closed woodland is restored, creating more pockets of sunlight, it will create habitat for light sensitive ant species and the increased floristic diversity will ultimately provide food (plants/nectar, honeydew, insects).

Various methods for collecting ants were employed and the cumulative results revealed that Harms Woods currently has a diverse ant fauna. Ten genera represented by a minimum of 31 species are present at Harms Woods. (See table below.)

It is probable that the ants listed are not representative of all of the smaller species or the nocturnal ones because we had limited pitfall-trapping success due to excessive rain and trap disturbance from over abundant raccoon populations and/or dogs off leash wandering off the trails. Based on species collected we can guesstimate that there are at least another half dozen present. Also, the presence and location of certain conservative ant species confirms that the impact of the restoration efforts at Harms Woods during the last twenty plus years has created a high quality remnant transcending beyond the flora.

According to Dr. James Trager, there are several conservative ant species at Harms Woods that are found only in high quality habitat. Trager is the Midwest ant expert who verified the identification of all the ants collected. One such species, *Formica ulkei*, immediately caught his attention; he had not expected that Harms Woods would have appropriate habitat to support it. It needs a significant amount of open area/sunlight and proximity to water. He said it is more commonly



From *Hey, Little Ant* by Phillip and Hannah Hoose.

associated with bogs. This spring when he visited Harms Woods he saw the impact of the restoration relative to light and floristic richness. Additionally, because founding females behave as temporary social parasites on members of *F. glacialis* and since there are multiple *F. glacialis* nests at Harms Woods, it was confirmed that the site supports *F. ulkeli*.

What happens is that the new fecundated *F. ulkeli* queen has to find a host colony and either gets past the workers and kills their queen or somehow gains their help and gets them to kill their queen. She then becomes the colony's queen and uses the workers to do the work of raising her brood. Eventually the host workers die out because only eggs from the new queen are being laid.

According to Trager, *F. glacialis* is also a very conservative species, even more conservative than *F. ulkeli*. It is mostly restricted to glaciated regions of the northeast and northern Great Lakes region. It is found on edges of woods, semi-open areas and in low moist sites. It is a host to the temporary social parasite *F. ulkei* and *F. subintegra*. At Harms Woods, there are five *F. glacialis* nests in an area where extensive restoration was done approximately two to three years ago. There are a few newer mounds near by. We also located three nests along the bridle path near the river. It appears that the restoration has created habitat that is helping

them flourish. It will be interesting to see how the relationship between *F. ulkeli* and *F. glacialis* plays out in the future.

The Balaban's beautiful small orangish-brown glossy smooth looking ant was a *Lasius speculiventris*. According to Trager, "it is a conservative one probably mostly associated with the same sort of habitats as *F. glacialis*, and another formicid indication of the high quality of the remnant and the restoration there." Their nests are often under logs, under bark of logs and sometimes in mounds of soil. According to Trager, who had never seen such a large nest of this species, the large nest was possibly the main founding colony for this species at Harms Woods.

Ground ant nests can persist for many years if all the other conditions are favorable. They can be revisited over time. It might be valuable to create baseline ant inventories at our North Branch restoration sites, and mark and monitor nests every year to see if they are still occupied. Who knows what the differences in ant fauna from site to site could begin to reveal about the sites, the impact of our restoration efforts and subtle differences in abiotic factors.

For an introductory guide on how to identify the most common ant subfamilies and genera in northern Illinois visit: www.acad.carleton.edu/curricular/BIOL/resources/ant/identificationguide.html#introduction

Harms Woods *Formicidae* List (Updated July 2007)

Subfamily	Species	Habitat	Food
Ponerinae	<i>Ponera pennsylvanica</i>	Moist woodlands	Carnivorous, small insects
Myrmicinae	<i>Myrmica americana</i>	Edge of woods, oak savannas, open fields, prairies, grasslands	Animal matter, plant juices
Myrmicinae	<i>Myrmica emeryana</i>	Mesic woods, low fields	Animal matter, plant juices
Myrmicinae	<i>Myrmica fracticornis</i>	(Needs moisture and some light) woodlands, low moist spots in edge of woods, bogs, sedge hummocks	Honeydew
Myrmicinae	<i>Myrmica spatulata</i>	Woods, dry woods, soil nesting	
Myrmicinae	<i>Myrmica punctiventris</i>	Dry to moist woodlands	Elaiosomes
Myrmicinae	<i>Aphaenogaster rudis</i>	Woodlands, especially open areas and edges	Insects, seeds, pollen, elaiosomes
Myrmicinae	<i>Crematogaster cerasi</i>	Woods, semi-open to open areas, sometimes in buildings.	Scavengers, honeydew, elaiosomes
Myrmicinae	<i>Crematogaster lineolata</i>	Woods, semi-open areas, fields, meadows	Scavengers, honeydew, elaiosomes
Myrmicinae	<i>Temnothorax curvispinosus</i>	Woods, edge of woods, acorns	Honeydew
Myrmicinae	<i>Temnothorax longispinosus</i>	Open woods, edge of woods, dead wood and under bark	Honeydew, small insects, pollen
Myrmicinae	<i>Temnothorax ambiguus</i>	Open woods, open fields	Honeydew, nectar
Myrmicinae	<i>Temnothorax schaumii</i>	Same as <i>T. longispinosus</i>	

Subfamily	Species	Habitat	Food
Dolichoderinae	Tapinoma sessile	Common everywhere, woods to open fields	Honeydew, elaiosomes
Formicinae	Camponotus americanus	Edge of woods, open well-drained woods, in soil	Honeydew, scavengers
Formicinae	Camponotus castaneus	Open dry upland oak woods, in soil	Honeydew, scavengers
Formicinae	Camponotus nearcticus	Woodlands, in burrows of other insects, under bark	Honeydew, scavengers
Formicinae	Camponotus noveboracensis	Open bogs, wet woods	Honeydew, plant juices, scavenger
Formicinae	Camponotus pennsylvanicus	Woods, edge of woods, open parkland, wood buildings, in dry or dryish rotten wood	Honeydew, dead insects, plant juices
Formicinae	Camponotus subbarbatus	Woods, edge of woods, in moist rotten wood on or under ground	Pollen, honeydew, scavengers
Formicinae	Prenolepis imparis	Deep woods to grasslands	Honeydew, nectar, exudates from galls, arthropods, earthworms, ripe or rotting fruit
Formicinae	Formica glacialis	Woods, edge of woods, constantly semi-moist open areas	Honeydew
Formicinae	Formica obscuriventris	Open moist woods, grasslands	Honeydew
Formicinae	Formica pallidefulva	Open fields, semi-open areas	Plant nectars
Formicinae	Formica pergandei	Woods-edges, semi-open areas	Carnivorous
Formicinae	Formica subsericea	Open woods, edge of woods, open areas	Plant nectars, honeydew, elaiosomes
Formicinae	Formica subintegra	Woods, open woods and fields	Insects, Aphaenogaster colony as food
Formicinae	Formica ulkei	Low open field, close to water table, never in deep shade	Honeydew and dead insects
Formicinae	Lasius alienus	Woods, edge of woods, prairies	Honeydew, insects, elaiosomes
Formicinae	Lasius speculiventris	Subterranean, woods, moist woods, swamps	
Formicinae	Lasius umbratus	Woods, open woods	Honeydew from subterranean root aphids and coccids

(To see photos of all 29 genera and 129 ant species present in Illinois please visit the Illinois field guide section at antweb:
<http://www.antweb.org/illinois.jsp>

NATIONAL PUBLIC LANDS DAY

SATURDAY, SEPTEMBER 29, 9:00AM-3:00PM

HARMS FLATWOODS

Would you like to join a multitude of folks and have some fun doing something powerful? National Public Lands Day is an annual event where volunteers gather to care for our public lands. This year the North Branch Restoration Project will observe the day at Harms Flatwoods. We'll be cutting brush and collecting some priority seeds to use in restoring native plants.

This event is co-sponsored by Cook County Commissioners Larry Suffredin and Greg Goslin, who will join the crews in helping take care of this beautiful woodland.

Lots of North Branch help will be needed in planning and carrying off this great event. Can you help with refreshments, lead interpretative tours, be small-group work-crew leaders, or contribute great ideas to make this day special? To sign up to help, contact Neil Peck at (773) 248-4817 or send an email to npeck@SNPeck.com.

NORTH BRANCH SEED PROCESSING DAY

SATURDAY, NOVEMBER 17, 9:00AM - 3:00PM

Emily Oaks Nature Center

4650 Brummel St., Skokie, Illinois, 60076

Directions to Emily Oaks Nature Center: from Skokie Boulevard/Cicero, go east on Howard St. to Knox Ave. Turn north on Knox, go two blocks to Brummel St. Turn west and go one block to the parking area at the Nature Center, on the north side of Brummel. Follow the signs to the processing area.



NBRP Workday Schedule - Fall 2007

SEPTEMBER

2	Sun	9:00-noon	Sauganash Prairie Grove
8	Sat	9:00-noon	Linne Woods North
		9:00-noon	Somme Prairie Grove
9	Sun	9:00-noon	Somme Prairie Nature Preserve
15	Sat	9:00-noon	Somme Woods
16	Sun	9:00-noon	Air Station Prairie
22	Sat	9:00-noon	Somme Prairie Grove
23	Sun	9:00-noon	Bunker Hill Savanna
29	Sat	9:00-3:00	Harms Flatwoods - NPLD

OCTOBER

6	Sat	9:00-noon	Linne Prairie
7	Sun	9:00-noon	Miami Woods Prairie
13	Sat	9:00-noon	Linne Woods North
		9:00-noon	Somme Prairie Grove
		9:00-noon	Watersmeet Prairie Grove
14	Sun	9:00-noon	Harms Woods
20	Sat	9:00-2:00	Somme Prairie Nature Preserve
		9:00-noon	Somme Woods
21	Sun	9:00-noon	Wayside Woods Prairie
27	Sat	9:00-noon	Air Station Prairie
		9:00-noon	Oxbow (See Bunker Hill for Directions)
28	Sun	9:00-noon	Somme Prairie Grove

NOVEMBER

3	Sat	9:00-noon	Watersmeet Prairie Grove
4	Sun	9am-2pm	Watersmeet Prairie Grove
10	Sat	9:00-noon	Linne Woods North
		9:00-noon	Somme Prairie Grove
		9:00-noon	Watersmeet Prairie Grove
11	Sun	9:00-2:00	Somme Prairie Nature Preserve
17	Sat	9:00-noon	Seed Processing - Emily Oaks Nature Center
18	Sun	9:00-noon	Harms Flatwoods
24	Sat	9:00-noon	Somme Woods
25	Sun	9:00-noon	Somme Prairie Grove

NOTES:

The eight Sundays from Sep 16 to Nov 11 are scheduled seed picking days. Seed collecting will be the primary, if not only, activity of those days.

BUFFALO GROVE PRAIRIE

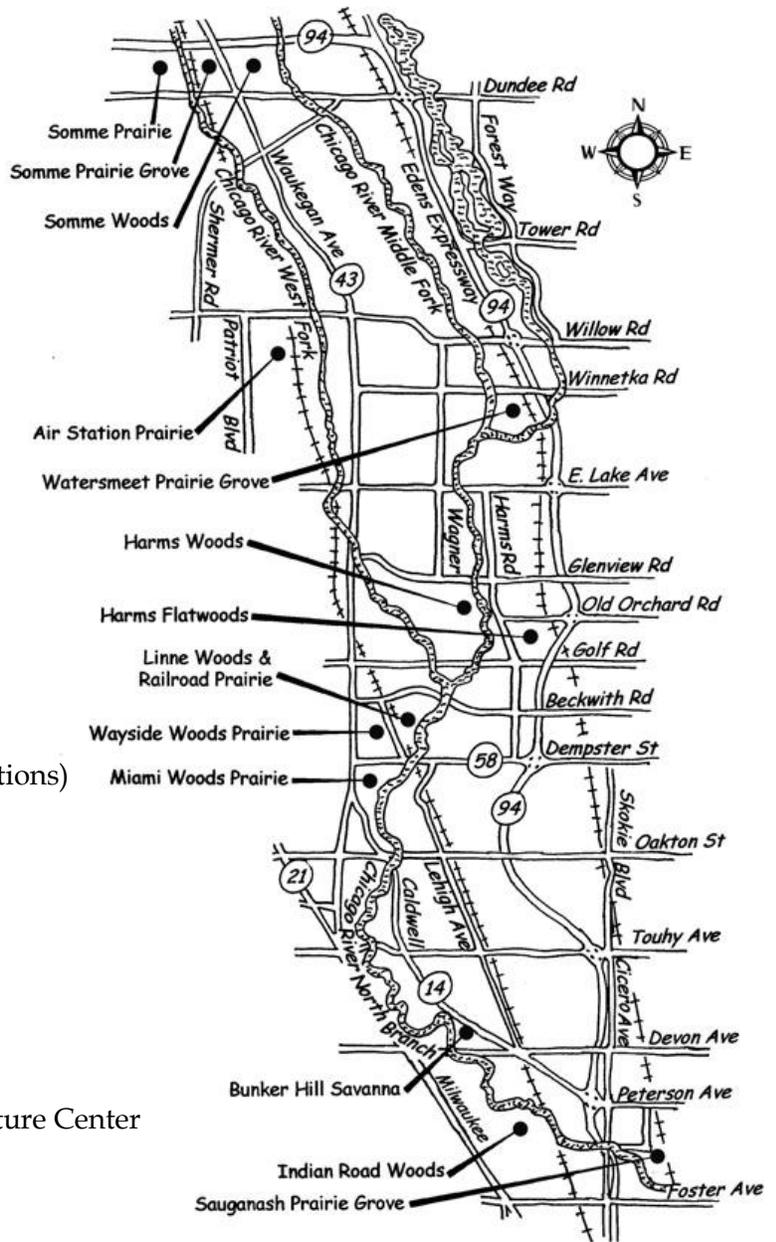
Sundays, 9:00 am - Noon
 Sept. 9, Oct. 7, Nov. 4
 Bev Hansen, 847-272-6211

Work on Sundays at this piece of virgin prairie located on Hastings Road. It is off Lake-Cook about a mile west of Milwaukee (watch for Hastings on the north after going under the railroad overpass). Turn north on Hastings, then right into the second parking lot. The prairie is under the ComEd power lines.

SKOKIE LAGOONS

Saturdays, 10:00 am - 1:00 pm
 Sep 8, Oct 13, Nov 10
 Jerry Garden, 773-545-4632, jerrygarden@sprynet.com

Meet at the Tower Road parking lot (east of the lagoon bridge - not the boat launch). There will be a sign with directions to the work site in the picnic field adjacent to the parking lot. Come dressed for the weather. We will provide waders, gloves and tools.



NBRP Site Directions and Stewards

Air Station Prairie, Glenview

Kent & Jerry Fuller – From the Edens Expressway; go west on Willow Road, past Waukegan Road and over the RR overpass. Turn south at the new traffic signals for Patriot Blvd. (The new main road through the redeveloped Naval Air Station). Turn east on Compass to the gate at the south end of the prairie. Patriot Blvd. is also accessible from the south via Lake Ave.

Bunker Hill Savanna/Oxbow, Chicago

Jane & John Balaban – Off Caldwell between Devon and Touhy; entrance located just opposite Tonty Street. For Bunker Hill Meet in first section of parking lot; for Oxbow, follow road until it turns north, then park along the west side.

Harms Flatwoods, Glenview

Neil Peck & Terry Schilling – Meet at the Forest Preserve Grove parking lot on the west side of Harms Road, directly west of Old Orchard Road.

Harms Woods, Glenview

Jane & John Balaban – Meet at the Forest Preserve Grove parking lot on the west side of Harms Road, just south of Glenview Road and north of Old Orchard Road.

Linne Prairie, Morton Grove

Mary Busch & John Thill (847-966-0231) – Meet at the Wayside Woods Prairie parking lot on Lehigh Ave, a few blocks east of Waukegan Road and just north of Dempster.

Linne Woods North, Morton Grove

John & Marian Thill (847-966-0231, mjthill@icsp.net) - From Edens go west on Dempster street about 1.5 miles. The forest preserve entrance will be on the north side of the street directly across from McDonalds. Follow the winding road all the way back until it dead-ends at the turn-around circle.

Miami Woods Prairie, Niles/Morton Grove

Kent & Jerry Fuller – Located on the east side of Caldwell, two blocks north of Oakton. Meet in the parking lot for Miami Woods.

Prairie View Nature Preserve, Morton Grove

Kent Fuller – From Dempster, 2 blocks east of Waukegan, turn north on Oak Park Ave. Turn left on Churchill and drive to the end. Park in the parking lot on the north side.

Sauganash Prairie Grove, Chicago

Larry Hodak & Pete Leki (watersschool@yahoo.com) – Meet at the edge of the Forest Preserve along the south side of Bryn Mawr at Kilbourn, which is south of Peterson and east of Cicero.

Somme Prairie Grove, Northbrook

Stephen Packard (847-509-0431, spackard@audubon.org) – WE NOW PARK AT SOMME WOODS FOR THIS PRESERVE. Park by the new signs, on the left, near the entrance and follow the new trail. From the Edens Expressway, take Dundee Road two miles west and turn right into Somme Woods parking lot (just before the light at Waukegan Road).

Somme Prairie Nature Preserve, Northbrook

Laurel Ross (312-665-7432, lross@fieldmuseum.org) & Christiane Rey (773-478-2019) – From the Edens Expressway, take Dundee Road 2½ miles west (past Waukegan) to Western. Turn north and park in the post office parking lot.

Somme Woods, Northbrook

Linda Masters (847-509-0431, masters2001@comcast.net) – From the Edens Expressway, take Dundee Road two miles west and turn right into Somme Woods parking lot (just before the light at Waukegan Road).

Watersmeet Prairie Grove, Northfield

John Berg (Kerg111@aol.com) – From Lake Avenue and Wagner Road, turn north on Wagner to Winnetka Road. Turn east on Winnetka for ¾ mile. Park on the north side of the street or a side street.

Wayside Woods Prairie/Linne RR Prairie, Morton Grove

Gladys Bryer & Larry Hodak – Meet at Wayside Woods Prairie parking lot on Lehigh Ave, a few blocks east of Waukegan Road and just north of Dempster.

Notes From the North Branch

SAUGANASH PRAIRIE GROVE - PETE LEKI

We had a very nice workday at Sauganash on Wednesday. About 16 kids and 5-6 adults from the American Indian Center came out to do stewardship for the first time. It is part of a two-week summer camp. The kids were beautiful and worked hard. The teachers were wonderful, too. They want to have a long-term relationship with Sauganash. Julia Brownwolf told the kids, gathered in a holy circle, passing tobacco smoke around before we went in, "Our people used to live here. They lived here for a long time. And they used to take care of this land and all the animals and plants on it. The trees and plants and animals of Sauganash haven't seen Indians in a long time. They are going to be real happy when they see you today".

We broke in to four groups and worked in a swamp white oak savanna/woodland, with *Carex squarrosa* and *Carex lupulina* and swamp saxifrage all around. Each group waved smoke over themselves and asked the forgiveness of the trees (buckthorn) that we were about to cut down. Then they worked very hard.

North Branch Restoration Project
P.O. Box 2154
Northbrook, IL 60062-3707

The North Branch Restoration Project is a cooperative effort involving the Nature Conservancy, the Audubon Society, and the Sierra Club. We manage the sites as volunteers for the Forest Preserve District of Cook County and other local agencies. The Project works to restore and manage the few remaining woodlands and prairies along the North Branch of the Chicago River. Our goal is to restore conditions that will allow these natural wild communities to flourish as a permanent part of the metropolitan area.

www.northbranchrestoration.org

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Sign up by sending an email to:
northbranch@comcast.net.

BIRD NESTING HIGHLIGHTS - STEVE PACKARD

This year Somme Prairie Grove had both yellow-billed and black-billed cuckoos nesting for the first time on record. That was clearly a response to one of their favorite foods, the 17-year cicadas. Hummingbirds were present all summer, although no nesting was apparent.

Actual nests noticed this year: yellow-shafted flicker, tree swallow, American woodcock, red-tailed hawk, eastern bluebird, house wren, brown thrasher, and red-winged blackbird.

The hawks seemed to have done a remarkable thing. A deer's leg appeared wedged in the top of a dead tree near the hawks' nest, and the young hawks sometimes sat near it and picked at it.

To contribute notes and photos to Brush Piles:

Email: masters2001@comcast.net

Snail Mail: P.O. Box 2154, Northbrook, IL 60062

Deadlines: November 1, February 1, May 1, August 1

Linda Masters, editor
