What is Chicago Wilderness?

Chicago Wilderness is some of the finest and most significant nature in the temperate world, with roughly 200,000 acres of protected natural lands harboring native plant and animal communities that are more rare—and their survival more globally threatened—than the tropical rain forests.

Chicago Wilderness is an unprecedented alliance of 88 public and private organizations working together to study and restore, protect and manage the precious natural resources of the Chicago region for the benefit of the public.

Chicago WILDERNESS is a quarterly magazine that celebrates the rich natural heritage of this region and tells the inspiring stories of the people and organizations working to heal and protect local nature.
The largest breeding colony of black-crowned night herons in the Upper Midwest is in the Calumet region of Chicago Wilderness. This heron (Nycticorax nycticorax) is an endangered bird in the state of Illinois because so much of the wetland habitat it requires has become poor for the herons or has disappeared altogether. So what are they doing in Chicago—within easy reach of eight million people?

From Ohio to Iowa, from Missouri to Minnesota, the rural Corn Belt has lost its vast prairies or prairie groves. We near Chicago also have transformed the landscape—in building homes and industry, transportation systems and the businesses to serve us. But visionary thinkers and planners, architects and social workers pushed to create the forest preserve districts and to acquire open lands. We the people have provided refugia for plants and animals, including many species on the edge of extinction; they no longer thrive in the corn and soybeans of the countryside. Only people destroy nature; but only people save it.

The Dunes-Calumet Region, part of a once-vast complex of marshes, wet prairies, and sedge meadows, was also once home to the world’s largest oil refinery and largest steel mill. Today its more than 50 fragmented natural sites harbor significant inventories of plants, animals, butterflies, amphibians, and fish, including several federally endangered species such as the Karner blue butterfly, the Indiana bat, and Pitcher’s thistle. The Calumet region also receives the greatest concentration of migratory land and water birds in the Midwest. They settle down for a rest here, tired after flying north over all those beans. More than 860,000 people also inhabit this area that is struggling to overcome the industrial legacy of contaminated groundwater, brownfields, and economic stagnation. People and nature.

The Calumet region, in largish microcosm, is one locale where committed citizens are working to restore economic health and ecological health to their communities. Nature and human needs are coming together in Chicago Wilderness.

Indeed, in the central paradox of Chicago Wilderness lies our best hope for the future of our people and our nature. Today, visionaries and planners, artists and poets, citizen scientists and plain folks seek to live in healthy, sustainable communities for themselves and for the other species with which we share a common home.

This issue of Chicago WILDERNESS features articles on wetlands and some of the creatures that you may find there. Now that it’s summer, why not play in some muck, sit on a log and watch the animals come to drink at a woodland pond, or prowl a grassy savanna in the dew of daybreak? It’s habitat for all of us. Like the frogs and orioles, enjoy Chicago Wilderness this summer. It’s here because of you.
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ABOVE: Cecropia moth, here emerging from a cocoon, can be found from forest preserves to neighborhoods to Chicago’s Loop. OPPOSITE: Pale purple coneflower and prairie coreopsis dominate an upland prairie in June. Photo by Joe Kayne. COVER: Half Day Forest Preserve, Lake County, Illinois. Photo by Pat Wadecki/Root Resources.
Soggy Places
The Natural History of Mucky Muck

by Peter Friederici

It doesn’t take an expert eye to realize that Chicago Wilderness is a rather soggy place. With its fens and marshes, bogs, seeps, and wet meadows, the area is a veritable catalog of the ways in which fresh water interacts with soil and sunlight and topography to create a multifarious array of living spaces.

“Northeastern Illinois has the largest concentration of individual wetlands in the entire state, thanks to the area’s glacial history and its complicated topography,” says John Rogner, field supervisor for the US Fish and Wildlife Service and chair of the Chicago Region Biodiversity Council, aka Chicago Wilderness. In addition, Chicago Wilderness owes some of its remaining wetland wealth to the irony that infuses its name because the urbanization and industrialization of the Chicago region contributed to less drainage of local wetlands for agriculture.

Fifteen percent and more of the Illinois-Wisconsin border region consists of wetlands, with other concentrations occurring along the Des Plaines River valley and along glacial moraines. But you can find wetlands pretty much throughout the Chicago Wilderness. Whether marsh or wet meadow, they act as sponges that soak up rain and snowmelt and recharge underground aquifers. Their plants filter and clean water, trapping pollutants and excess nutrients. And their often-dense vegetation supports an amazing web of life, from highly visible beavers and ospreys and herons to noisy frogs and blackbirds to entirely inconspicuous fishes, snakes, and invertebrates.

To view wetlands merely as nature’s high-powered kidneys is to make the mistake of focusing on a single function rather than understanding them as a vital complex system—the lowest element, altitudinally speaking, of a much larger system that starts at the top of a hill and moves down.

To understand the condition of wetlands in Chicago Wilderness, it’s important to try to unearth what the place looked like 200 years ago. That’s not easy to do, given the enormous alterations that have occurred in hydrology. Much of the area, like much of the Midwest, consisted of wetlands that were viewed as useless and unhealthful places—and that were relatively easy to drain. The creation of drainage districts in the mid-1800s enabled farmers to dry up their lands by burying interconnected networks of drainage tiles. Other wetlands were destroyed by simply filling them, raising the soil above the water level.

Throughout the Midwest, the effect of draining wetlands was profound. By the 1980s only 10 percent of Illinois’ wetland acres remained, and 15 percent of Indiana’s, the majority of the rest having been drained for agriculture.

Some soil scientists have estimated that about half of northeastern Illinois was once sodden, meaning that even considerable concentrations of wetlands like those in western Lake County or at Lake Calumet are only remnants of what was. At the Midewin National Tallgrass Prairie near Joliet, a recently completed soil inventory identified 130-odd areas of wetland soils, but most of them today look just like any other field of corn or beans or pasture grass.

Thanks to the Clean Water Act of 1972 and to an improved understanding of the importance of wetlands, filling and draining has slowed to a trickle, so to speak. But relations between people and water remain uneasy. That’s apparent nearly every year in the early spring or summer,
When runoff from winter snows or summer storms floods basements and swamps underpasses. Many of the landscape’s natural sponges are gone; huge areas that once absorbed water are covered with pavement, buildings, or lawns laid over impervious clay. As a result, runoff becomes floods, damaging human structures and waterways alike. Without sufficient natural lands acting as filters, sediments and pollutants pour into lakes, streams, and rivers.

The results are apparent on endangered species lists. Lake County has 66 species of wetland plants on the Illinois endangered species list. Many animals fussy about the quality, size, or type of wetlands they can use have grown scarce, such as the king rail, state-endangered black tern, and spotted turtle; the majority of the state’s endangered birds, mammals, and reptiles dwell in wetlands. And that’s not even to speak of the numerous fishes, mussels, and other aquatic animals that rely entirely on watery places.

But even protected areas are at risk. That’s because wetlands are highly sensitive to what goes on in their surroundings. Upland vegetation around them serves as a buffer, absorbing runoff and sediment and pollution. When those buffers are lacking, or too small, wetlands can be overwhelmed with sediment or with pollution from roads.

“You can do things to areas quite removed from a wetland and still have an effect,” says Rogner. “Diversion of runoff, sedimentation, introduction of pollutants such as oil and salt—these are all harder problems to get at than direct impacts.”

“There are places along area tollways where you can find salt-loving species you’d expect in a salt marsh,” points out biologist Charles Paine of the Max McGraw Wildlife Foundation in Dundee.

Roads near wetlands have other impacts, too. Rare species such as Blanding’s turtle and the massasauga rattlesnake sometimes need to move from one wet area to another, and if there’s a road in the way they’re often killed outright. Frogs and salamanders are regularly flattened in large numbers when they cross roads at night during their breeding season.

Consider the case of the Hine’s emerald dragonfly, found only in Door County, Wisconsin, in Michigan’s upper peninsula, and at a few sites along the lower Des Plaines River. Here it lives where clean groundwater seeps out over bedrock and forms small marshes and meadows. “We don’t know yet how to protect the recharge areas that are the source of that water,” Rogner says. “We don’t even know the extent of those areas yet.”

As in prairie or forest, invasive species can leave native wetland species with no room to live. Purple loosestrife and reed canary grass are lovely plants, but both clog marshes, choking out native species and providing little food for wildlife. The Illinois Natural History Survey is trying to control loosestrife in the region with imported beetles—an experiment that shows some promise.

Also effective, though, is recruiting lots of volunteers to pay sweat equity in grubbing out small infestations of those plants. As is true of other ecological communities in the area, public support and involvement are essential if such problems are to be controlled and reversed.

The main legal shield protecting wetlands is the Clean Water Act, which requires anyone who wants to fill a pond or marsh or wet meadow to acquire a permit from the Army Corps of Engineers. Describing the machinations of the permitting process (or relating why the Army ended up as one of the nation’s top environmental cops) could fill a series of articles. What’s most important is this: a developer who wants to fill or substantially alter a wetland is often allowed to do so—on condition that he ‘mitigate’ the loss by creating or restoring a wetland elsewhere.

In the early days after passage of the Act, mitigation often meant little more than digging a hole out back of the
new shopping center and letting it fill with runoff. Most of the newly created wetlands were small and poorly designed; many were built in places that nature hadn’t intended to be wet. Some went dry. Others turned into biologically barren ponds filled with dirty water and rimmed with a few hardy cattails.

“Historically, the report card for these projects is not that good,” says Rogner. “The overall success rate was less than 20 percent. Wetlands were not sited in ideal places, but rather in nooks and crannies of development sites.”

In the 1980s, some engineers, hydrologists, and biologists began looking for better solutions. In cooperation with the Lake County Forest Preserve District and state and federal agencies, a research organization called Wetlands Research, Inc., began restoring more than 500 acres of forest preserve land in the floodplain of the Des Plaines River along Route 41 and Wadsworth Road. Water was pumped from the river into a series of marshes built on what had been abandoned farmland. Within a few years, new marsh vegetation was absorbing more than 80 percent of the nutrients and sediments that entered the system; the number of migratory waterfowl using the site exploded by 4,000 percent; the number of breeding wetland bird species doubled. Among the new nesting birds were at least two state-endangered species, the least bittern and yellow-headed blackbird.

“We found that the environmental factors, such as water quality, sediment trapping, and nutrient cycling, can be accomplished in a restored wetland very quickly,” says Albert Pyott, who worked with Wetlands Research and now heads the Chicago-based nonprofit The Wetlands Initiative. “The critters will to a large extent just show up. They swim in or fly in or walk in. Sure, we don’t have every microbial interaction going that would be in an undisturbed wetland, but over time that’ll happen. We just don’t know what the time frame is.”

Research at the Des Plaines River Wetlands Demonstration Project continues. In the meantime, the site has imitators in a new type of restoration project that’s cropping up all over the Chicago Wilderness region: the mitigation bank. The idea is simple. Say you’re a developer whose plan requires filling in five acres of wetlands. Rather than building a new and probably inadequate wetland on your property, you buy a number of wetland “credits.” The credits constitute shares in a larger restoration project typically designed and built by a private firm in collaboration with a government agency that will ultimately own and manage the wetland. You might have to pay for restoring 7.5 acres to make up for the five acres destroyed. The first privately operated mitigation bank in the region—indeed, in the nation—is in St. Charles. Here a 52-acre swath of old farmland along the Fox River was turned into a mosaic of marsh and wet prairie, with a surrounding buffer of upland prairie. The Otter Creek project isn’t complete yet, but most of its credits have been sold (at prices around $45,000 an acre), and it generally has received good reviews. A hundred native prairie and wetland plants live there.

Children lose one of the best parts of youth when wetlands disappear from our neighborhoods.

That’s not to say it looks like a wetland that’s been around for centuries. “You shouldn’t even try to compare with Mother Nature,” says John Larson, an ecologist with Applied Ecological Services, one of the companies that designed and built the project. “You’d be comparing a five-year-old wetland with one that’s a thousand years old. In a hundred years Otter Creek might look completely different.”

Mitigation banking does have a number of obvious advantages. It’s permitted only in places that once were wetlands and that can easily be converted through excavation or the removal of drainage tiles. It results in large-scale restorations (mitigation banks in the Chicago region must include at least 25 acres). And it’s done under strict monitoring by the Corps of Engineers, Environmental Protection Agency, and Fish and Wildlife Service.

Still, mitigation banking does abet the destruction of small wetlands, and that concerns some biologists. Charles Paine points out that wetlands exist in a mosaic. “Wetlands are very dynamic places,” he says. Many dry up in drought
years or flood during wet periods. When conditions change, it’s important to have other wetlands nearby so that plants and animals can recolonize newly suitable habitat.

“The problem becomes, do we have enough wetlands left for bad conditions, and for recolonization when good years return?” he asks. “Maybe the little wetlands are important on a local scale for herps (reptiles and amphibians), or fish, or birds in migration.”

“Mitigation banking is one of many interesting approaches, and as an environmental community we must keep an open mind about restoration practices,” says Jean Sellar, a biologist with the US Army Corps of Engineers, “but these are experiments and we don’t know yet what will work.” Sellar also points to research demonstrating that scattered small wetlands high in the watershed contribute more benefit than large wetlands further downstream.

There’s also the matter of human contact with nature. Otter Creek is a beautiful and species-rich place to visit—it’s now a valued part of the St. Charles Park District—but it’s centralized. It replaces a number of smaller wetlands that probably gave many adults the chance to hear red-winged blackbirds and children the opportunity to catch frogs. Too much destruction of small local wetlands, in other words, could reduce the opportunity to experience nature on a neighborhood level—a major element in instilling real appreciation in children.

Fortunately, restoration projects in various sizes are cropping up all over the area. At Midewin, the US Forest Service wants to restore most of those 130 former wetlands that were recently identified. At the new Prairie Crossing development in Grayslake, a pond close to backyards has become home to reintroduced endangered fishes. Other animals are coming home to Chicago Wilderness on their own: after a long absence, ospreys and sandhill cranes are now  a valued part of the St. Charles Park District—but it’s centralized. It replaces a number of smaller wetlands that probably gave many adults the chance to hear red-winged blackbirds and children the opportunity to catch frogs. Too much destruction of small local wetlands, in other words, could reduce the opportunity to experience nature on a neighborhood level—a major element in instilling real appreciation in children.

Restorations can involve children and adults in direct and delightfully squishy ways. Consider, for example, Prairie Wolf Slough, a 40-acre restoration project along the Middle Fork of the North Branch of the Chicago River in southern Lake County. Mobilized by the Friends of the Chicago River, hundreds of volunteers, including many schoolchildren, planted over 51,000 native plants on the site. It was a mucky experience.

“Some days the students really got a taste of what hydric soils are,” says the Friends’ David Ramsay. “I literally had to pull out a couple who were stuck in the mud.”

The volunteer program has continued, as adults and children monitor plants and water levels and try to weed out purple loosestrife and buckthorn. Alan Pilgrim, who acts as the site’s volunteer steward, says the ongoing once-a-month workdays have been deeply instructive.

“We did some more planting recently,” he says. “It had been raining like mad, and this time I didn’t sink in mud. The plant life had taken hold and the root systems supported our weight. It was a striking confirmation that we’re helping nature heal.”

Peter Friederici is a freelance writer and field biologist who prefers to have mud between his toes.
Children and ponds belong together. In recognition of this truth, Prairie Woods Audubon Society (PWAS), one of the Chicago Wilderness partners, and School District 15 in Palatine collaborate on a two-month program called “Pondering Ponds.” Two PWAS teachers, Dell Meiller and Catriona Bowman, visit every second grade classroom in spring and prepare the children for a supervised field trip to a pond in Deer Grove Forest Preserve. A one-hour lecture covers the animals and plants they are likely to see and stresses the importance of ponds in the ecosystem. The children also play a game about food chains and the relationships between animals and plants in the pond.

There is a fascination with the still, deep waters of a pond. A heat haze shimmers in the distance, dragonflies hawk over the surface on swift, jagged flight paths, and fish jump open-mouthed into clouds of gnats, leaving behind ever-widening ripples. Dip a net into some pond weed and marvel at the myriad wonders that await you. You never know what you’ll find next.

It may be a six-inch long bullfrog tadpole or a giant water bug adorned with eggs by his mate. A shy little newt may wriggle out from the weed. Dragonfly nymphs and crayfish heave themselves out from the mud and resolutely climb the sides of the net. Overhead, swifts dart after mosquitoes and red-tailed hawks cruise the thermals. A great blue heron stalks majestically in the shallows, and a tiny ruby-throated hummingbird sucks nectar from the jewelweed. Occasionally on a sultry afternoon, thunder growls and the frogs all shout back in defiance.

Back in their classrooms, the children rear leopard frogs from eggs. The new science curriculum requires these ‘older’ exploratory programs to fuse with new technology and art. Several schools have set up Web sites to compare their data with other schools. Students from Kimball Hill School in Rolling Meadows investigated a polluted pond in their playing field to compare the inhabitants there with those at Deer Grove. Many students construct beautiful and detailed collages to depict pond life, or write poetry and sculpt pond animals from styrofoam.

Turn the page and listen to the voices of the children. They will tell you why ponds are so fascinating.
Today...

...I caught the biggest tadpole I ever saw. It was as long as a new pencil sharpened only once. I can’t believe I saw a tadpole that big!
   Kyle—Thomas Jefferson School

...I got to hold a frog. I LOVED the duckweed because I got to play in it. Animals need hiding places from predators.
   Caitlin—Lincoln School

...I saw a heron flying. And how he was flying. I figured out that he was the biggest animal at the pond. That made me feel like a cool scientist.
   Matthew—Lincoln School

I liked...

...when you gently swooped up the little pond life how if you put them under the magnifying glass, you can see every detail, every eye, every leg.
   Caitlin—Lake Louise School

...that I saw a skating spider—I felt froggy mud.
   Lisa—Winston Churchill School

...the water snake. It has no feet and is like a noodle that can move.
   David—Thomas Jefferson School

...the squishy mushy mud.
   Keelin—Thomas Jefferson School

...that Mr. Taylor got lost!
   Kalib—Central Road School

...catching frogs because they make funny noises. I will never damage a pond in my entire life.
   Nicole—Thomas Jefferson School

...the beetles because most can swim, fly and dive. They are small and yet they eat meat. And finally, they can be 5 millimeters long.
   Luke—Lincoln School

...the turtle. He looked really awesome. He came really close to my group at the shallow end. He swims really fast.
   Alex—Lincoln School
Ponds are important because...

...animals and other creatures live in the pond and you can’t pollute and you can’t wreck their habitat because then they won’t have a home and they would die.

Stacey—Central Road School

...they are places for water after it rains. They prevent flooding.

Greg—Thomas Jefferson School

...ducks need to cool off and eat duckweed. Ponds give frogs a place to sit on lily pads and let people see their reflections in the water.

Amy—Lake Louise School

Final words...

...you should never harm a pond ever because there are animals to think about in your life too. You should never throw your garbage in the pond because you are polluting the water.

Savannah—Gray Sanborn School

...the algae is eaten by plankton which is eaten by insects which is eaten by frogs or toads which is eaten by some very large fish like bass and great blue herons.

Conrad—Thomas Jefferson School

...imagine what the world would be like without ponds. Wouldn’t you feel something was missing?

Matthew—Thomas Jefferson School
Consider two models for your relationship with your yard. In one model, you are an absolute dictator. In the other, you enter into a dialogue with the plants and animals that share your property. We can call the first of these the Burpee model and the second, the Chicago Wilderness model.

The Burpee model—and we could just as well call it the Ortho model or the Springhill model—offers you large and beautiful flowers in familiar and absolutely predictable shapes and colors. You fill out your order form confident that the seeds, bulbs, and naked root transplants you select will—if you treat them right—perform exactly as the breathless prose in the catalog promises (minus an adjective or two). Your daffodils will take the winds of April with beauty. Your peonies will enrich the heavy air of June. Your mums will reach their peak just as cool nights signal the approach of fall and winter. For as long as these plants live, they will act their parts on order, filling their allotted space with color in their several seasons.

Yet your relationship with them is a bit one-dimensional. The ecosystem is beautiful but shallow.

In thinking about the Chicago Wilderness model, we might start with the story of the migrating milkweed told to us by Skokie residents John and Jane Balaban and then repeated in various forms by every natural gardener we talked to. Native plants—plants grown from seeds taken from the wild—like to move around. You plant them tidily in a flower bed. They grow and flower richly. But next year, they sprout four feet away in the middle of the lawn. For John and Jane, it was a purple milkweed, a respectable plant of open woodlands and savannas. The first year, it grew where they planted it. The second year, it grew along the other edge of the sidewalk, and the third year it was out in the lawn. We are familiar with plants spreading by rhizomes, but we tend to assume that the original plant will stay put while its daughters grow around it. The migrating milkweed just packed up and went. There was no sign of it in its original home.

The plants in the catalogs are like golden retrievers. The purple milkweed has a bit of the coyote in its genes. It moves; it may decide to take a year off now and then, remaining underground for a whole season. A delicate forest bloom like the wood anemone—freed from competition in the protected environment of your yard—becomes an aggressive producer of runners. Every year you will find yourself cutting back the wood anemone to keep it in bounds. Instead of beautiful but predictable, your yard is suddenly beautiful and surprising. You watch and learn.

Wild columbines are spreading nicely through the minuscule patch of semi-shaded ground that we have designated our savanna/woodland garden.

This year we discovered a small columbine sprout forcing its way up through a crack in the sidewalk that borders that garden. Other people may have dandelions and purslane and similar low-rent weeds growing in the cracks in their sidewalks. Our sidewalk weed is one of the most beautiful native wildflowers in the Midwest.

If you let some pieces of the wilderness into your yard, others may follow. Jim and Jean DeHorn, who have surrounded their bungalow on the northwest side of Chicago with more than 30 different species of native prairie and woodland plants, tell of the sphinx moth they saw hovering around the prairie flowers in the front yard and the tiny hawk moth they found last year feeding on—and perhaps pollinating—the evening primroses that grow along the edge of the alley.

One day Jean discovered an unusual butterfly feeding on nectar from her wildflowers. The field guides told her it was a Milbert’s tortoiseshell. She thought she had something rare and extraordinary. When she told scientists at the Chicago
You could take that response as disappointing. The amazing rarity turns out to be commonplace. Jean took it as evidence that her yard was hooking her up with a larger ecosystem. Movements on a regional scale are an accumulation of movements in small places, and her yard was one of those small places.

The Balabans report a range of unusual pollinators including colorfully named wasps like purple maniacs and great golden diggers. New pests also appear, like the milkweed beetles that somehow located the one backyard in all of Skokie that had suitable food plants. One year, a flock of goldfinches—the only ones John and Jane have ever seen in their backyard—arrived just in time to gobble up all the developing seeds in the flowers of their false dandelion (*Krigia biflora*).

Most gardeners are interested in attracting birds to their yards. The main contribution your garden can make to the health of our bird populations is as a spring and fall oasis, a temporary stopping point, a source of food and shelter on the long journey of migration. Planting flowering shrubs and trees is a proven strategy. They don’t need to be native to work. The two sour cherry trees in our backyard proved to be magnets for orioles, warblers, and even hummingbirds during spring migration when the trees were in flower.

Native viburnums, hawthorns, and dogwoods offer spring flowers and fall berries for passing birds.

There is an air of eccentricity that clings to the idea of natural gardens. Some communities even have laws that require that every house be surrounded by the sort of regimented landscapes that demand heavy annual applications of chemicals to maintain their uniformity and sterility. In the minds of the people who created those laws, the natural garden seems to be associated with houses hidden among tall weeds and rank shrubs where hermits live with armies of house cats.

But most “wild” yards have nature and civilization mixed. Lawns, after all, are fine places for volleyball games. Our own lawn shares space with the World’s Smallest Prairie, a patch of ground measuring 10 by 15 feet. Through the summer it entertains us with two species of blazing star, compass plant, wild bergamot, butterfly weed, prairie dock, big bluestem, Culver’s root, and northern dropseed. Entertains us, too, with an assortment of butterflies and bumble bees. But in early spring, when we desperately need some greenery and some big showy flowers, the prairie is dormant. At that time of year, the World’s Smallest Prairie sprouts daffodils and tulips straight from the Burpee catalog.

Aesthetically, natural gardens broaden the palette, introducing new colors and textures to our artificial landscapes. Practically, they may be difficult to propagate but, once established, they can thrive with much less tending than the domestics require. Plants whose genes have been nourished by 10,000 Midwestern summers can get through an August dry spell unwatered, and our native *Rosa carolina*
can handle January without the covering that hybrid tea roses often require.

Most natural gardeners were inspired to try to recreate a bit of prairie or woodland on their doorsteps after looking at the beauty of our natural areas. John and Jane Balaban got interested on woodland walks where they photographed wildflowers. Jean DeHorn can trace her interest to a single talk by Bret Rappaport, president of the Wild Ones Natural Landscapers, Ltd., at a conference on attracting wildlife in urban areas. “We had already stopped putting pesticides on our lawn, because we were feeding birds,” she said. “So our lawn wasn’t looking too great, anyway. Jim had suggested that we either re-sod it or expand the flower garden. I hurried home that day to get there before he started laying sod.”

Most neighbors of city wildflower gardeners are fairly tolerant and even somewhat interested. Jean DeHorn said one neighbor tries to walk by the DeHorn’s house when running errands because it looks different every time she passes.

This reaction isn’t universal, of course. The first year of Jean’s garden, a woman stopped by to watch her weeding for a few minutes. Finally she shook her head sympathetically and said, “It will take you a long time to get rid of all that.”

Glenda Daniel, director of the Urban Program at the Openlands Project, is married to Jerry Sullivan, a naturalist with the Forest Preserve District of Cook County. Their garden lies at the northeastern corner of Chicago’s 40th Ward.

**SOURCES:**

The following is a partial list of some local, well-known nurseries supplying native plants and seeds:

- **The Natural Garden**
  38W443 Highway 64
  St. Charles, Illinois 60175
  (630) 584-0150

- **Art and Linda’s Wildflowers**
  3730 54th Avenue
  Cicero, Illinois 60804
  (630) 863-6534

- **Prairie Ridge Nursery**
  9738 Overland Road
  Mt. Horeb, Wisconsin 53572
  (608) 437-5245

- **Spence Restoration Nursery**
  PO Box 546
  2220 E. Fuson Road
  Muncie, Indiana 47308
  (765) 286-7154

For advice, counsel, and wild plant fellowship, contact:

- **Wild Ones Natural Landscapers, Ltd.**
  c/o Bret Rappaport
  180 N. LaSalle Street
  Chicago, Illinois 60601
  (312) 845-5116

To learn even more, plan to attend the **Chicagoland Native Landscaping Seminar**, which has sessions about philosophy and design, plant materials and installation methods. Stephen Packard, director of National Audubon Society’s Chicago Wilderness Program, is the keynote speaker, and guided tours of College of DuPage’s West Prairie-Marsh Nature Preserve are scheduled hourly.

**Date:** Friday, July 9

**Time:** 7:00 a.m. to 3:30 p.m.

**Place:** College of DuPage in Glen Ellyn

**Registration:** $45 before June 25 and $55 after (includes breakfast and lunch)

**Information:** (630) 942-2010

Last September, Highland Park joined the ranks of such places as Bloomingdale, Naperville, and Long Grove by officially endorsing the use of native plant species in landscaping. The new ordinance cites improved wildlife habitat, aesthetic benefits, and erosion prevention as advantages of native landscaping. For copies of Highland Park’s guide to natural landscaping and ideas for how to integrate natural plantings in the neighborhood, contact Rebecca Grill (847) 831-1709 or hagrig@aol.com.

—Kathy Kowal
Into the Wild
OUR GUIDE TO THE WILD SIDE

Bring field guides and binoculars—or just your senses and spirit. These lands are among our best and brightest gems of ancient nature.

1 CRANBERRY SLOUGH NATURE PRESERVE—Cook County
2 FERSON CREEK FEN—Kane County
3 MARY MIX MCDONALD WOODS, CHICAGO BOTANIC GARDEN—Cook County
4 VOLO BOG STATE NATURAL AREA—Lake County
5 BRAIDWOOD DUNES AND SAVANNA—Will County

Maps & Illustrations: Lynda Wallis
Out Among the Aphrodites

by Joe Neumann

Whoosh! I swipe my net up and down, left and right. Bring on the butterflies. Our walk through Spears Woods in southwest Cook County has been pleasant but not particularly productive. This well-shaded woods has too few flowers to attract most butterflies. But now there is a light at the end of this tunnel.

...Out into the sun... All the stalks and stems are so fresh and flexible that they bounce off our bodies as we push through them. The Aphrodites are here in force—Aphrodite fritillaries, that is—all orange and airy. They pop from the growth and whirl around each other. You spin around, your eyes darting back and forth as you attempt to track them. This scene is the natural equivalent of a carnival hall of mirrors.

Andy and I are the volunteer butterfly monitors here. Thirty preserves throughout the Chicago region received such monitoring last year. Doug Taron of the Chicago Academy of Sciences and Ron Panzer of Northeastern Illinois University oversee the operation.

To ensure the scientific accuracy of our results, we walk along a set route, during set times (between 10 a.m. and 3 p.m.) and under set conditions (low wind and at least partial sun). I am the netter today. Andy is the recorder. He marks on a sheet the butterflies we find and the habitat we find them in. We count butterflies—we do not collect them.

Spears Woods has received extensive restoration work. Both Andy and I have helped clear the European buckthorn brush that threatens to clog this preserve. Since restoration began in 1990, much of the site has received a controlled burn. Monitoring butterfly populations is one way to assess the impact of the restoration work.

The Aphrodite belongs to a group of butterflies known as the greater fritillaries or silverspots. The one now lounging in front of me makes the origin of this name obvious. A deep maroon drapes its underwing and from among this backdrop a host of large silvery spots shine. Andy has seen the butterfly now too. “Get that one!” he says. There are fritillaries rarer than the Aphrodite. This one reclines on its flower utterly uninterested in escape. Whoosh! We transfer it from the net into a jar. The orange and brown pattern of its upper wing reveals that it is just an Aphrodite. But what an Aphrodite! The queen of the Aphrodites!

Our route leads us to an official trail. To the west lies a wetland that the Forest Preserve District dammed and now stocks with fish. Some backyard butterflies fly here, the red admiral and the ubiquitous white European cabbage butterfly. A cluster of dogbane, now in full flower, draws a flock of butterflies. Among these are several great spangled fritillaries, a more common cousin of the Aphrodite. This butterfly is beautiful in its own right but not as “habitat restricted” as the Aphrodite and so of less interest to us.

Since we entered this field, we have seen no Aphrodites. Year after year a stray Aphrodite is all we find here. This field appears much the same as the one to the south where we entered, and another field to the east. Yet both the south and east fields have healthy Aphrodite populations. More puzzling is the fact that for the first two years of monitoring, the south field was just as barren as this field. The explanation of this observation may not be simple, but one fact about these fields stands out. Since restoration work began the west field has never been burned, while the south field has been burned twice. The east field has also been burned twice, in different years than the south field.

The effect of fire on insects is controversial. The idea that fire harms insects makes sense, and Ron Panzer’s studies show that many insect populations do decrease the year following a fire. But, counterintuitively, most of these species prosper in subsequent years. Ron recommends burning a third of an area each year so that the insects can, in effect, have their cake and eat it too.

Doug Taron has monitored the butterflies at Bluff Spring Fen near Elgin in far western Cook County since 1987. Restoration work, including extensive burning, has been conducted at the site since 1981. Doug’s data show statistically significant increases in the populations of two rare, remnant-dependent species. The Aphrodite population at Spears Woods has now also shown a statistically significant increase since restoration work began.

We enter an oak ridge now that appears to have served as a property line in the past. Ahead of us, the east field opens. We descend into it, counting the butterflies as we go: Aphrodites, great spangled fritillaries and, weaving among the growth, the velvet black flutter of the first wood nymph of the season.
Cranberry Slough, named for its unique peat bog community populated by cranberry and other plant survivors from post-glacial times, was dedicated as the fifth nature preserve of Illinois in January, 1965. Secluded in southwestern Cook County, its 372 acres are nestled within the larger 14,000-acre Palos Preserves, which are laced together by 35 miles of meandering multi-use trails made of packed earth and crushed limestone.

When the Wisconsin glacier retreated north 12,000 years ago, it fragmented and sloughed off big blocks of ice, some as large as barns or even stadiums, mixed with the detritus of the Valparaiso and Tinley Moraines. Where these gigantic ice cubes slowly melted, they transformed the land into peat bogs, potholes, and swamps with little, if any, outlet for water. As glacial detritus deposited around these ice blocks, the hilly, rolling topography of the Valparaiso Moraine was formed.

During the Great Depression of the 1930s, the Forest Preserve District, in conjunction with the Civilian Conservation Corps and other work-relief forces, artificially blocked and dammed many of these glacially created wetlands to create the Palos Preserve’s current lakes, ponds, and sloughs. European settlers coming to this area saw a rich mosaic of oak savanna and prairie. Now, young upland forests and remnants of degraded prairie can be found on its steep slopes. And its kettle hole conditions—the remnant glacial wetlands—support vernal pond, marsh, and sedge meadow communities. Here, visitors can observe herons, egrets, ducks, gulls, pied-billed grebes, common gallinules, and swallows, as well as beaver, tiger salamanders, chorus frogs, spring peepers, and other wetland wildlife. Birders will find this an especially rewarding site for spring and fall migratory sightings.

Observant visitors can detect the signs of glacial and post-glacial forces at work here. This area was once part of the Mount Forest Island, one of the first dry areas where plants could colonize when the water level of ancient Lake Chicago fell and left these wetlands puddled within the freshly exposed rolling landscape. On the higher ground, which tends to be more dry, hikers can enjoy solitary walks through the savanna, prairie, and oak-hickory woodlands that surround Cranberry Slough.

Wetland enthusiasts can visit a slew of other sloughs nearby: Hidden Pond Slough, Belly Deep Slough, Pollywog Slough, Hogwash Slough, and Katydid Slough, among others.

For further information contact the Forest Preserve District of Cook County at: (708) 366-9420

DIRECTIONS:

From I-55 take LaGrange Rd. (I-45) south to 95th St. Go west one mile to Country Lane Woods on the left. Park at the far east end of the lot and follow foot paths east through the woods to the wide horse/bike/hiking trail. Hike south. After a wooded descent, a swale, a wooded ascent, look for Cranberry Slough on the right through a screen of brush.

--- Eugene Bender

Work parties are for anyone interested in helping our natural areas. No experience is necessary. Volunteers get training in how to do the restoration necessary to maintain and restore our native ecosystems. Typical activities include brush clearing, weed pulling, seed collecting, and seed spreading. Long pants and sturdy shoes are recommended. Call the contact people before the workday to confirm times and directions.

COOK COUNTY:

McCormick Woods (Brookfield):
4th Saturday every month, 9 a.m.
1st Ave. at 31st St.
Contact Liz Cozzi: (773) 937-8903.

North Park Village Nature Center (Chicago):
Wed—every week, Jul–Sep, 9 a.m.
Sat—Jul 10, Aug 7, Sep 11, 9 a.m.
Sun–Jul 18, Aug 1, Aug 22, Aug 29, Sep 19, Sep 26, 9 a.m.
Contact Bob: (312) 744-5472.

Bemis Woods South (Western Springs):
Jul 10, Aug 8, Sep 11, 9 a.m.
Ogden Ave. at Wolf Rd.
Contact Dave Lloyd: (708) 485-2296.

Cap Sauers Holding (Palos Park):
Jul 4, Aug 1, 9 a.m.
Call for specific parking directions.
Contact Deb Petro: (312) 842-7076.
Despite farmers’ efforts in the early 1900s to drain and “improve” the wetland now known as Ferson Creek Fen in Kane County, the gem has survived. The 40-acre preserve, located in St. Charles along the Fox River, now is a dedicated Illinois Nature Preserve.

Water in a fen is very cold, contains a low level of oxygen, and has a very basic pH. “That provides unique conditions and certain plants have adapted to them, but others haven’t,” said Mary Ochsenschlager, natural resource manager for the St. Charles Park District, which owns the site.

Plant species such as Ontario aster, skunk cabbage, crested wood fern, bog lobelia, great St. John’s wort, several rare types of goldenrod, and even wild rice can be found in the fen. Deer, coyote, and numerous species of water fowl call the fen home, along with mink, meadow jumping mice, and many kinds of frogs, such as the spring peeper. The blue gray gnatcatcher, prothonotary warbler, and yellow-throated vireo can also be seen hunting insects in the trees around the fen.

The fen itself occupies some 20 to 25 acres of the preserve; the remainder is upland prairie and sedge meadow. Imagine a fen as a soaked sponge floating in a shallow puddle. The sponge in this case is made up of a thick mat of partially decayed plant matter, or peat and muck. The puddle is supplied by water seeping up through the ground.

The plant matter doesn’t fully decay because the water is so low in oxygen. A pinch of it examined closely reveals bits of leaves and stems. If two people stand on the mat and one jumps up and down, the other can feel it quaking, according to Ochsenschlager, hence the name ‘quaking mat.”

Anytime from mid-spring through fall is a good time to visit Ferson Creek because there are always plants in bloom, Ochsenschlager said. “Wetlands and prairies don’t have to wake up early to bloom,” she added. “They can take their time because they don’t have a tree canopy above them.” She recommends visiting in the early morning or early evening for the same reason: the lack of shade makes for midday heat.

Interpretive signs along the boardwalk leading through the preserve describe the fen and how it works; provide information about the sedge meadow and flood plain forest; point out some of the unusual plant species; and describe the problems with invasive species. Probably the most pernicious of these is purple loosestrife, an imported garden ornamental. Herbicides are not used in the fen because of concern that the herbicide could spread to all of the plants via the water. So, staff and volunteers manually remove the plants. Beetles that feed on the loosestrife were introduced a few years ago, but positive results have yet to be seen, which is “pretty discouraging,” Ochsenschlager said.

A slow paced walk through the fen takes less than an hour, Ochsenschlager said. She recommends visitors enjoy a stroll through the upland prairie where in the fall of 1997 workers and volunteers removed thousands of feet of drain tile and are now restoring natural prairie. Across the Fox River from Ferson Creek Fen is Norris Woods, another state nature preserve, profiled in the Spring 1999 issue of Chicago WILDERNESS.

For more information, contact the St. Charles Park District at (630) 513-3338.

**DIRECTIONS:**
From Rte. 64 in St. Charles take Rte. 31 north. The preserve is located on the north side of Ferson Creek, just a few minutes from downtown St. Charles.

—Benjamin Cox
Mary Mix McDonald Woods, located within the Chicago Botanic Garden in Glencoe, is being restored to its former glory as a native oak woodland. Named for the much-revered former member of the Cook County Board, Mary Mix McDonald, these 100 acres are home to a surprising diversity of plants, as well as insects, mammals, birds, reptiles, and amphibians—and if scientists, horticulturists, and volunteers have their way, McDonald Woods will soon become a healthy refuge for even more of its now rare original native species.

Staff and volunteers at the Botanic Garden are working to restore the woods to a biologically diverse community approximating the kind of woodlands that existed in northeastern Illinois for thousands of years since the glaciers retreated. Goals for this project include increasing the native species diversity to a healthier level; expanding the amount of research done in McDonald Woods; and opening the woods to visitors as an outdoor classroom where they can learn about the beauty of the area’s native flora and what must be done to preserve it.

Because of the Garden’s commitment, McDonald Woods is an outstanding place to conduct long-term studies on the effects of restoration on native woodlands. Researchers from the Garden and the Field Museum are measuring the effects of management practices such as removal of invasive species and periodic prescribed burns on mosses, fungi, flowering plants, insects, spiders, small mammals, and birds. Early results indicate that in areas where the woods are being restored, species are increasing in number and diversity. One example is the Appalachian brown butterfly, which relies on sedges for larval food. The population of these rare butterflies has increased more than threefold over the past six years.

In collaboration with the Chicago Region Biodiversity Council, McDonald Woods is being developed as a demonstration site to educate visitors about local biodiversity and how to maintain it, and to extend the efforts already underway to inventory plant and animal diversity and restore threatened and endangered regional species. The Garden is creating new signs, maps, and other interpretive materials, and plans to expand the trail system.

Presently, 15 acres with wood chip trails and boardwalks (over wet areas) provide visitors the opportunity to immerse themselves in the contemplative beauty of an oak woodland. Strolling beneath leafy canopies of majestic tall trees gives the feeling of time traveled, back to when Illinois settlers described the woodlands as groves with carpets of grasses and wildflowers spread beneath lightly woven branches. A variety of wildlife can be glimpsed by walkers, from Cooper’s hawks overhead to magnificent great horned owls and elusive coyotes. In the spring, the sight of hundreds of wildflowers, including trillium, spring cress, trout lily, and hairy wood violet, makes each visit a special experience.

“The beauty of these plants and animals is enhanced by the knowledge that their numbers are increasing annually, signaling the return of the health and function to the community,” notes Jim Steffen, the woodland’s ecologist.

As that health increases, staff expect a wider range of nesting birds—such as red-headed woodpeckers, rose-breasted grosbeaks, Eastern wood pewees, yellow-billed cuckoos, and indigo buntings—to settle in the woods, making for a birder’s dream.

And, of course, as Mary Mix McDonald Woods is located on the grounds of the Chicago Botanic Garden, the trails from the woods can lead visitors to 22 different gardens, art exhibits, and seasonal festivals.

The Garden is open every day of the year except Christmas from 8 a.m. to sunset. There is a restaurant on-site as well as designated picnic areas. Bikes are allowed on designated routes only. For more information, call (847) 835-5440.

**DIRECTIONS:** Take the Edens Expressway (US Rte. 41) to Lake Cook Rd. and travel 1/2 mile east. The entrance to the Chicago Botanic Garden is on the right. Mary Mix McDonald Woods is located in the northeastern corner of the Garden.

—Julie Schuster

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**WORK PARTIES**

**MCHENRY COUNTY:**

**Cotton Creek Marsh (Island Lake):**
Jul—Aug, 1st & 3rd Sunday, 3 p.m.
Contact Mike Bouska: (815) 759-0731.

**Pleasant Valley Prairie (Woodstock):**
Jul 10, Aug 14, 8 a.m. Sep 11, special workday. Call for details.
Contact Steve Francis: (847) 669-9447.

**KANE COUNTY:**

**Nelson Lake Marsh (West of Batavia):**
Sep 11, 9 a.m. Randall Rd. to Main St. West on Main, then south on Nelson Lake Rd.
Contact Grace Koehler, Kane County Forest Preserve District: (847) 741-9798.

**Underwood Prairie (Kaneville):**
Aug 14, 9:30 a.m. Rte. 47 to Main St. West on Main, south on Lorang Rd. Contact Grace Koehler, Kane County Forest Preserve District: (847) 741-9798.

**Persimmon Woods (St. Charles):**
3rd Saturday every month, 9 a.m.
Contact Mary O.: (630) 513-3338.
Volo Bog near Ingleside in Lake County is a blessing left behind by the southernmost reaches of the Wisconsin Glacier. “It’s really like stepping into another world,” said Greg Behm, site superintendent of the nature preserve.

Volo Bog was a 50-acre lake some 6,000 years ago. With time the lake began to fill in with sphagnum moss. Now, it is the only quaking bog with an open-water center in Illinois, with about half an acre of open water remaining.

Its unique characteristics earned it status as a Nature Preserve on the state level in 1970. The US Department of Interior recognized its importance three years later, naming it a National Natural Landmark.

A floating boardwalk leads a full half mile through the bog, taking visitors first to a swamp area. Then, tall shrubs rise up all around. Soon, the shrubs become significantly shorter. Finally, foreign terrain that seemingly doesn’t belong in Illinois. Sphagnum moss appears, rolling in mounds called hummocks toward the open-water center of the bog. Deciduous conifers called tamaracks also appear.

“Most people come in the summer,” said park secretary Debbie Kloss, “because the flowers are in bloom and there are a lot of birds, frogs, and tadpoles to be seen.” A second, two-and-a-half mile trail leads hikers or cross-country skiers around the perimeter of the bog. Behm plans to install another three miles of trail this summer.

Volo is habitat to some 180 bird species, including many that are endangered or threatened. Great egrets, yellow-crowned night herons, Cooper’s hawks, pied-billed grebes, sandhill cranes, American bitterns, and sharp-shinned hawks can all be spotted in the preserve. For the plant enthusiast, look for such rarities as the carnivorous pitcher plant, high-bush blueberry, large cranberry, leather leaf, and many orchids.

As with most wetlands, invasive species are a problem at Volo. The “dark side” in this case is represented by the dreaded purple loosestrife and glossy buckthorn. Beetles that feed exclusively on the loosestrife have been introduced, but results have yet to be seen, according to Behm. Park workers also have used herbicides to help control the invaders.

A converted dairy barn serves as the Visitor Center, containing the park offices, restrooms, program room, a hands-on discovery area, and reference library. Visitors can also pick up season-specific park brochures for self-guided tours that include species checklists to help make the experience more interactive. Picnic areas are also available, including a covered shelter.

Park naturalist Stacey Miller and volunteer naturalists conduct numerous programs each season. Summer offerings include a bat program complete with a visit to the bat barn, which houses the largest bat maternity program in the area, bird walks, a web of life program, bog botany for adults, and two night programs. The evening prowl is designed for exploration of the preserve at night and the other is an astronomy program. Guided tours are offered on the weekends and group tours can also be accommodated.

An easy-paced tour along the floating boardwalk takes about an hour. Across from Volo is Pistakee Bog Nature Preserve, home to two more bogs.

For more information, call (815) 344-1294 or check out the Volo Bog Web page at http://dnr.state.il.us/parks/parkinfo/volobog.htm

**DIRECTIONS:** Volo Bog is about 45 miles northwest of Chicago. From I-94 exit at Rte. 120 (Belvidere Rd.), westbound for 13 miles to Hwy 12. Turn right and head north for two miles to Brandenburg Rd. Take a left and travel a little more than a mile to the park entrance.

—Benjamin Cox
Sand dunes, lizards, cacti—are we talking about Chicago Wilderness?

Nestled in the far north reaches of the Kankakee Sand Area of Illinois, Braidwood Dunes and Savanna Nature Preserve offers a rare glimpse at the remains of an ancient sand dune created 11,000 years ago.

Past the gray gravel preserve parking lot—60 miles southwest of downtown Chicago—a sign sits firmly planted in the sand, covered by a wood-shingled triangular roof, at the foreground of a breezy orange and yellow field of prairie grass. A quick assessment of this 288-acre dedicated state nature preserve comes in the form of cartographic scribblings set behind a worn Plexiglas case. According to the posted map and legend, notable aspects of this preserve include: roads, a parking lot, trails, wetlands, prairie, and savanna. But what’s most basic—most primordial—about Braidwood Dunes and Savanna isn’t indicated on signs. It’s underfoot. As a path winds its way east out of the parking lot and into the black oak savanna, sandy sections of trail give way to impressions of hiking along the beach and trips to the wild west.

In open areas exposed to sun and sky, clusters of cactus come into view. Turning the corner, a quarter of a mile and a half loop, a lizard scurries off the trail and sits still in the underbrush, displaced from his place in the sun. The long dark stripes on its light brown back come into focus and the camera clicks once, twice, three times. The lizard finally shoots off into the sand—running for cover among anemones and orange dandelions growing in the shady sand savanna ahead.

The “dunes” here are remnants of Lake Wauponsee, a glacial lake created by the onrush of water from the last Ice Age. But Lake Wauponsee doesn’t exist anymore. In fact, all that’s left of the dunes is a gently sloping, sand-swept topography. But with coal strip mines to the north, new construction to the west, a cemetery to the east, a nuclear power plant nearby, and plots of farm land with great mounds of sand scattered about, the significance of this site—as a rare sand prairie and black oak sand savanna—is magnified.

Efforts to keep Braidwood Dunes and Savanna much like it used to be are evident in vague traces of black around tree trunks. The Forest Preserve District conducts prescribed burns here every three years in an effort to restore natural processes—and natural health—to this fire-dependent ecosystem. Spring and summer volunteer work parties, organized by a local volunteer group known as the Prairie People, also assist in seed collection and planting.

Though trails get muddy when wet (some portions were underwater when I visited in April), box turtles, three-way sedges, six-line race runner lizards, prickly pear cacti, and tubercled orchids are just a few of the plant and animal species that can be found within the preserve.

As a dedicated state nature preserve, neither picnicking, biking, nor pets are allowed.

**DIRECTIONS:**
Take I-55 south to Rte. 129. Head south on Rte. 129 to Rte. 113. Take Rte. 113 east. Turn right into preserve parking lot.

—Christopher Percy Collier
JULY/AUGUST

Poke Salad Annie
In 1969, a singer named Tony Jo White had a hit song named Polk Salad Annie, about a “mean, spiteful woman” who was so ornery she “made the alligators look tame.” She probably got this name for picking the emerging shoots of Phytolacca americana, or pokeweed.

Pokeweed is a tall, large-leaved plant with a thick, dark purple stem that grows in damp areas of disturbed woodlands. The young stems have been used in a salad, but the mature stems, berries, and roots are poisonous. No thanks! Great song, though!

Gar
In July 1962, when I was five years old, I witnessed a fatal beating on the shore of Bangs Lake in Lake County. A group of fishermen had hauled a long-nosed gar onto the dock and fisherm en had hauled a long-motioned gar onto the dock and were snapping the living daylight out of it with an oar. The fish was longer than me and was snapping and thrashing about the pier. I was terrified of the creature and wouldn’t even wade in that lake until I reached high school, when we would sneak into the private resorts by crawling through a culvert under the road. There are still populations of these large fish living in Bangs Lake, as well as a few other bodies of water in Lake and McHenry Counties, typically in small glacial lakes with little or no current. Gar can tolerate relatively warm water virtually devoid of oxygen. They are able to gulp air from the surface, using a primitive organ as a supplement to their usual gill respiration. Look for these large fish as they bask near the surface in the late afternoon sun.

American Gold
Young goldfinches are being fed a delightful repast of regurgitated, partly digested thistle seed, horded up by their parents. The offspring of these birds are late arrivals to the natural world. The parents may not even build their nests until July when the thistle is blooming. The homes of these attractive songbirds can be found in the forked branches of shrubs. The nests are tight little bowls lined with thistedown, so well constructed that they hold water. Sadly, more than one fledgling goldfinch has drowned in its own nest.

AUGUST/SEPTEMBER

Copulating Lepidoptera
Hopefully there are plenty of copulating butterflies in the Chicago Wilderness. This is the time of year when male and female butterflies are meeting and mating: doing their best to replenish their species. Of course, the mating behavior differs from species to species. Some butterflies perform a complex “dance” high above the treetops, others simply pair up for a short duration while resting on a plant. After they have completed “the act,” the female seeks just the right species of plant for her species of butterfly on which to lay eggs while the male seeks another mate.

This summer, during her brief, two-week life as an adult, the female Karner blue butterfly will mate and lay eggs among the wild lupine growing in the oak-covered dunes of northwest Indiana. This rare, diminutive creature was given its current scientific name, Lycaides melissa samuels, by noted lepidopterist and first-rate writer Vladimir Nabokov in 1941.

Orbs
Our large, black and yellow argiope spiders are currently building their round, symmetrical webs along the paths that wind through our grasslands. Web construction usually occurs at night, with the finished structure ready to entrap flying insects shortly after sun up. Argiope are able to traverse their webs by walking on the straight, non-sticky strands of webbing that radiate out from the center. The spiraling strands of the web are the sticky ones, and thus avoided by the web’s owner. A characteristic of these predators is the thick zigzag webbing called the stabilimentum found in the middle of the web.

Look closely and you’ll see these webs are usually constructed not to hang vertically, but on a slight angle. This allows the spider to move about the underside of the web, using gravity to keep its body away from the sticky threads.

Bird Joke
Ranger Tom told me the following joke:
Q: What did the turkey vulture take on the airplane?
A: Carrion luggage.

The turkey vultures that spent the last several months in the north country are heading south, migrating through our area with a variety of other birds of prey. Look for these large scavengers as they soar through our skies, holding their wings in a shallow V formation. They’re not looking for their food as they fly; they’re sniffing for it—hoping to catch a whiff of a bloated, rotting animal carcass.

Yellow Legs
If you’re lucky, you may be able to spot some yellowlegs walking along the shores of Lake Calumet. Belonging to the Sandpiper family, both greater and lesser yellowlegs travel through the Chicago Wilderness during their seasonal migrations, stopping for an occasional meal of crustaceans and insects. They are an alert breed, loudly calling an alarm when they feel threatened. These aptly named birds can be easily distinguished from other sandpipers by their long, yellow legs. Also, the greater yellowlegs is larger than the lesser yellowlegs. Nice naming job, huh? In late summer, the yellowlegs are already on their journey south. Some don’t stop migrating until they reach Tierra del Fuego!

Bullwinkle’s Buddy?
In our mature woodlands, there lives a well known but seldom seen mammal. Active almost exclusively at night, the southern flying squirrels of the Chicago Wilderness are currently producing a second brood of young ones; the first batch was born in the spring and is already living on their own. Living in a dead limb of a red oak, the newborn flying squirrels are 2 inches long, pink, naked, and weigh less than an ounce.

Due to the squirrels’ nocturnal habits, casual visitors to the woods are rarely aware of their presence. A powerful flashlight is recommended for spotting southern flying squirrels. Their brown eyes appear bright, ruby red when illuminated. During the day, one should look for opened acorns and hickory nuts under old woodpecker holes. Nuts opened by flying squirrels have a distinctive circular hole gnawed through the shell.

Rocket J. Squirrel, of Rocky and Bullwinkle fame, was probably a northern flying squirrel, as his home was in Frostbite Falls, Minnesota.
I used to think of terns as elegant, migratory birds that skimmed the surface of a huge body of water—Lake Michigan, for example, or the Gulf of Mexico.

Then, while doing a breeding bird atlas 10 years ago, I saw my first black tern (*Chlidonias niger*) several miles away from Lake Michigan. It hovered with shallow wingbeats over a Lake County marsh. Then, with its bill turned down, it swooped to snatch an insect off the vegetation like a large, black swallow.

I soon learned that the black tern, as well as the Forster’s tern I had seen along the lakeshore during migration, breed at inland wetlands. Both are endangered breeders in Illinois and confined to the Chicago Wilderness region.

Though it may have once bred throughout Illinois, the black tern, which winters from Panama south to Peru, probably now breeds only in Lake and McHenry counties. The species abandoned a Cook County breeding spot several years ago. Degradation and loss of habitat and changes in water flows have created problems for the black tern; only in the region’s highest-quality, protected wetlands will you find breeding black terns.

According to Mike Ward of the Illinois Natural History Survey, black terns probably nested only in three places in Illinois last summer. While conducting research on yellow-headed blackbirds, Ward counted approximately 20 black tern nests in Broberg Marsh in Lake County. Chicago birder Eric Walters found terns nesting at a private marsh near Moraine Hills State Park in McHenry County. Brad Semel, a natural heritage biologist with the Illinois Department of Natural Resources, said black terns also nested with Forster’s terns at Lake Elizabeth in McHenry County.

Carolyn Fields annually checks Deer Grove East Forest Preserve in Cook County, an historical breeding place for this species, but she found none breeding there the past few years.

The black tern nests in loose colonies beginning in late May. The female builds a nest of old weed stems, dead rushes, and wet and decaying plant materials. She lays two to three olive eggs spotted with brown. She may also lay her eggs on floating driftwood anchored by surrounding vegetation. Both sexes incubate and the young hatch about three weeks after the last egg was laid. Chicks leave the nest when they are two days old and beg for food for at least another three weeks.

Black terns glean most insect prey off marsh vegetation or from the air, making them interesting to watch. A prime spot for black tern watching in summer is the Lakewood Forest Preserve in Wauconda, where they forage on a few of the more easily accessed ponds and marshes. A favorite delicacy in August is dragonflies. As summer wanes, their jet black bellies start to turn white for their trip south. If suitable habitat within the Chicago Wilderness region is maintained, they’ll return black-bellied to breed again next year.

—*Sheryl De Vore*
Hine’s Emerald Dragonfly: A Globally Rare Gem

The Hine’s emerald dragonfly (Somatochlora hineana) may be the most endangered dragonfly in the United States. Illinois placed it on its endangered species list in 1991, and the federal government listed it in 1995. So far it is known to exist in only three locales: Door County, Wisconsin, the eastern Upper Peninsula of Michigan, and within one mile of the Des Plaines River in northern Illinois.

The Hine’s emerald is large as dragonflies go, measuring 2 to 2.5" long with a wingspan of 3.5–3.75". It is characterized by large, bright green eyes, a dark brown and metallic green thorax with two creamy-yellow lines, and transparent wings with amber tinting at the base of the hind wing. The nymph or naiad (aquatic larva) is about 1” long and brown. It is oval shaped and densely covered with coarse hairs on which algae and debris accumulate, making this dragonette look like a dirt ball with legs.

The nymphs live for two to three years in narrow, slow-moving rivulets in marshes. Prime habitat is cool, shallow (only several centimeters deep), slow-moving water, usually found in spring-fed marshes, fens, or seepage sedge meadows. They move by walking on their six long legs or they can squirt water out of their anal opening and thus be jet propelled. Nymphs prey mostly on fly larvae and crustaceans, but sometimes catch small fish and larval amphibians. The lower jaw of a dragonfly nymph is long and hinged below the chin so it can dart out and grasp its prey with tong-like terminal appendages and pull it back to the mouth to feed. Nymphs, in turn, are fed upon by fish, predaceous beetle larvae, and other dragonfly larvae sometimes even of their own species.

When a nymph is full grown, it crawls up a plant stem out of the water, and the adult emerges through the split skin of the nymph’s back. It is soft at first, a tempting morsel to frogs or birds. Adult dragonflies emerge in late June or July and live only a few months until frost. They eat insects—mosquitoes and flies—on the fly. Adult males patrol their territories, lunging forward to scare trespassers off. They chase other males away but pursue females with a different objective in mind.

Dr. Everett (Tim) Cashatt of the Illinois State Museum and other scientists have been studying the Hine’s emerald dragonfly since 1988. They visited 106 sites in Illinois, Ohio, and Wisconsin and located breeding populations in Door County, Wisconsin, and the Chicago area. The Hine’s hasn’t been seen in Ohio since 1961. Finding adults cruising over the cattails is hard enough, but it took three years of searching to discover the nymphs in the water. Chicago Wilderness breeding areas include: Emerald Fen at Waterfall Glen in DuPage County, two sites in Cook County, and five sites in Will County. Others studying these creatures include TAMS Consultants, Inc., the Wisconsin Nature Conservancy, and Dan Soluk of the Illinois Natural History Survey.

The US Fish and Wildlife Service and others are currently working on a recovery and management plan for the dragonfly, and the Forest Preserve Districts of Cook, DuPage, and Will Counties are keeping little streamlets open by cutting back cattails and pulling out watercress. In this pampered habitat, the female dragonfly lays her eggs one at a time, flicking her tail into the water.

So, if you would like to see this rarest of our Chicago Wilderness neighbors, pick a sunny morning in July when it’s warm and not windy. Grab a pair of binoculars, and go for a walk along Division Street at Lockport Prairie in Will County. Perhaps, if you are lucky, you will catch a glimpse of a metallic green and brown mini-helicopter with emerald eyes and amber wing bases, living the good life in Chicago Wilderness.

—Patricia K. Armstrong

Illinois Natural History Survey scientists Deanna Zercher and Brian Swisher conduct Hine’s emerald research at Lockport Prairie.
Floyd Swink: making fun of plants

by Lori Rotenberk

Along with his dearly beloved tulip tree and orange-fringed orchid, Floyd Swink, perhaps the foremost botanist and plant taxonomist in the Chicago Wilderness region, also has been motivated by ice cream. It's a passion grand enough that he's been known to plan outings to woodlands and prairies based on their proximity to certain ice cream parlors.

Besides his wife, Marie, no one knows this better than Linda Masters, a restoration ecologist for Elmhurst's Conservation Design Forum who has worked alongside Swink collecting specimens in the field.

"In 1986 we spent hours, days together," recalls Masters. "I would drive the van and Floyd would navigate. He would have his binoculars out. He would plan our daylong field trip. First we would have coffee, and Floyd, a piece of toast. Then we would go look for plants, he having mapped a route of possible rare plants in bloom. And for every route planned that year, on it would be an ice cream stop," Masters says. "He took it in a cone."

A sneaking suspicion upon meeting Floyd Swink is that his signature flavor is vanilla; he can be found darting around his office at the Morton Arboretum in grass-stained white tennis shoes, cream colored trousers, beige cardigan sweater all topped off with a crop of white-gray hair.

Then there's his energy. "Oh! There must be more than 1,000 trillium out here! Whooooaaahh!" He is as colorful as the birds he spies through the binoculars dangling from his neck or the bold-hued flora he so admires.

Referring to himself as a true "prairie man," he is brilliant in his work and adamant about continuing to learn. Each day he adheres to a busy schedule at the Morton Arboretum where he's taxonomist emeritus, a post he has held for the last four years.

Swink joined the Morton in 1960 to head its education program. But he also has been responsible for identifying 28,000 of the 40,000 woody plants on the grounds. What's more, he co-authored Plants of the Chicago Region with friend and fellow botanist Gerould Wilhelm (Indiana Academy of Science, recently updated for its fourth edition).

Forever curious, and painfully honest, Swink, 77, says he's recently discovered that he's "been missing the real parts of nature. I mean the absolutely mind-boggling phases of nature," he says. Scouting the trees to follow the call of a red-winged blackbird, which he begins to imitate with his hands above his head, Swink gleefully calls out, "Can you imagine being able to do work like this for a living? Being outdoors looking at plants and birds?" Then he sort of hops up and down.

This latest bout of wonder stems from a yearlong friendship with Laura Rericha, a Midwest bird expert. Together they have combed forests, marshes, and prairies, Swink teaching her about plants, Rericha adding to his already vast knowledge on birds. "All these years I've been collecting plants, and all around me was this great web of nature," Swink says. "Laura has taught me bird habits, flight speed, flight mechanisms, digestion complexities, and the insects they eat."

Likewise, he has taught Rericha, Masters, Wilhelm, and a host of others. Nor does he just teach nature; there are his sports stories, the multiple interconnections between English and Latin words, and puns.

"Oh my god! I can tell you my favorite [pun] right now," laughs Rericha at the mention of Swink's pun penchant. A Mallard duck went into a pharmacy, she recounts. The duck went to the counter, ordered a Chapstick, and told the pharmacist, "Go ahead and put it on my bill."

Let the record note that Swink is a man of unusual rituals.
While he tells his life story, a sandwich, unwrapped, sits atop a file cabinet in his sparse office. “Oh, that? That’s my lunch,” he explains. “Soon as I arrive in the morning I open it up so it dries in the air. I call it ‘toasting.’ By noon it will be perfect to eat.”

Legendary, too, are his typing skills, developed as a young boy. Swink demonstrates how he can type 140 words per minute, feigning difficulty because his hands are chilly. The keys of the electric typewriter on his desk fly crazily from the speed, thwacking against the paper as a long paragraph is formed in seemingly a second! And he does it while doing other mental tricks.

“When I first met him he did it for me, keeping nickels perched on his knuckles, typing the capitals of the states in alphabetical order while he was reading a book upside down,” Masters says.

Swink grew up in Villa Park during the Depression. One of four children, young Floyd often would hike with his father to the neighboring Arboretum, and it was while scouring its landscape that his interest in plants began.

Identification books in tow, Swink learned as much as possible on his own, never suspecting a career in botany might follow. Instead the spry, ambidextrous, sports-minded youth dreamed of a career in…baseball. On a drizzly Chicago morning before taking a lively birding hike combined with peeks at woodland wildflowers, Swink displays the talent that caught the eye of minor-league scouts more than five decades ago.

He throws imaginary balls into the air, first with his right arm, then with his left. “I played two positions, shortstop and pitching. What intrigued the scouts was that I pitched left-handed to lefties and right-handed to righties. As a shortstop, Swink was ideal because on a double play he would underhand to first with his left, something rare among ballplayers.

But instead of joining the minors, Swink joined the navy during World War II with hopes of seeing the world. He served his time in Chicago as a typist.

He did see the world, he says, but not as a sailor. Plants took him there. After finding a plant he couldn’t identify, he took it to the Field Museum’s botany department. The plant, blue hearts (Buchnera americana), changed the course of his life. Botanist Julian Steyermark identified both the plant and Swink as rare treasure.

At the Field, he became an apprentice under Steyermark, one of America’s best field botanists. He saw the globe through study of the Museum’s world-wide collection of herbarium specimens. Later, Swink spent seven years as an instructor for the University of Illinois and then became a naturalist with the Cook County Forest Preserve District. By 1960, he became head of education at Morton.

“Floyd Swink was instrumental in my life,” says Gerould Wilhelm, who began working with Swink at the Arboretum after returning from his own stint in the army in 1974. “I was in the Army Corps of Engineers. We were analyzing environmental impacts along the Des Plaines. Here came this botanist who knew more technical detail on plants than I’d ever thought possible.” That brilliance inspired Wilhelm and so many others in the continuing culture of appreciation of the nature of Chicago Wilderness. Thank you, Floyd.
The first edition of the *Plants of the Chicago Region* must have seemed arcane and dull to some who peeked inside its covers. No pictures, no descriptions, just lists of plants—in Latin. But by the third edition, the book was widely acclaimed as one of the major sources of information and inspiration for conservation and restoration in the region.

It began as a work of love, of “pure” science. Floyd Swink loved to identify plants and loved to make lists. The Morton Arboretum was one of those rare places where a scholar could study and publish for the few who cared. What those few found was a book the likes of which was unknown for any other region on Earth. It consisted of a simple alphabetical list of all plants growing wild in the region—trees, grasses, everything. Then, after each plant name was a secondary list of “associated species”—those that grew near the species in question. These Latin lists were to change from academic curiosities to tools for conservation and restoration in later years when the plight of our vanishing ecological communities would be recognized. But, at first, they must have seemed like just endless lists of obscure Latin.

Then in the late 1970s and early ’80s, conservationists began to try to recognize “health” and “recoverability” in ecosystems. The Illinois Natural Areas Inventory demonstrated that nearly all of Illinois’ natural ecosystems were gone. The surviving high quality examples added up to a pathetic seven hundredths of one percent (.0007) of the original. This pittance was too small to survive for the long haul, so pretty soon forest preserve staff and volunteers were scouring the countryside for more damaged but recoverable remnants. They needed to know how to recognize them, and what might be missing (and thus in need of restoration) to restore the remnant to health. When Gerould Wilhelm joined with Swink in 1979 to produce a third edition, identification keys were added along with a system for comparing sites according to their floristic “integrity” or conservation importance. Soon “Swink and Wilhelm” became a Bible, toted to many a meeting and over hill and dale in search of nature.

The process of writing the book was an adventure in itself. I helped Floyd and Jerry with the fourth edition. The book’s range maps for the species were based on county records, and Floyd made lists for each county of likely new species records to be found. Floyd chose the counties we’d visit on a given day and highlighted the species we were most likely to find in bloom. Then we drove from place to place, hunting for areas where associates of the missing species grew. When we found one, we collected a specimen for the herbarium, and wrote down the associates. Two or three days a week, throughout the growing season for two years, we’d leave around eight in the morning and be home for Floyd’s dinner by six. Floyd would drag the itineraries from his “bottomless briefcase”—along with pencils, bananas, books, binoculars, maps and all. The fourth edition emerged as 921 dense pages, all typed at breakneck speed and without error by Floyd (though, if I wasn’t there, nothing happened, because he never did learn how to turn on the computer). We added 99 native species, 167 adventive species, and 2,750 county records to the region’s flora.

One of the most significant parts of the book is those lists of associates. Some species have different associates whether they’re found in a prairie, a fen, or an oak woods. Certain species have four or five different sets of associates. This is the kind of information needed to restore and track the health of plant species in natural ecosystems. For this, and for his boundless good humor, Floyd inspires us. He is an elder in the community of conservation.

—Linda Masters
Grow Your Own Butterfly Garden

Butterflies bring beauty, color and graceful movement to any setting, from an open expanse of prairie to a backyard flower garden. If you’d like to enjoy the sight of butterflies fluttering around your home this summer, here’s what you can do to create a butterfly garden in your own yard.

1. Pick a sunny spot. Plants that attract butterflies, and the butterflies themselves, need sunlight. The sun helps the flowers bloom faster, so they can produce plenty of nectar for adult butterflies to feed on, and lots of leaves for the caterpillars. It also keeps the butterflies warm enough to fly and gives them plenty of time to find food, mates, and places to lay their eggs. The sun’s warmth also helps the eggs develop more quickly. A few large stones in or near the garden will give the butterflies a warm place to light and restore their energy between feedings, mating, and laying eggs. A nearby shady spot is also a good idea—it gives the butterflies a cool spot to rest in case the sun gets too hot.

2. Provide shelter from the wind. Too much wind will interfere with the butterflies’ flight patterns, as well as their ability to feed and mate. A nearby stand of trees or bushes or a solid fence can serve as good “breeze breakers.”

3. Maintain a steady food supply. Plant a good mix of host plants, including both annuals and perennials. That will guarantee there will always be plants blooming, providing a continuous source of leaves and nectar for the butterflies’ entire life cycle. The annuals will bloom all summer, and the perennials will grow back every year. Butterflies can tell which part of a garden produces the most nectar, so they’ll be most attracted by mass plantings of the same species of plants or flowers. The overall size of the planting doesn’t matter, however—butterflies can be attracted to an apartment window box as well as a raised bed in your garden, a perennial border, or a large field.

4. Use insects, not pesticides, for pest control. Garden pests can damage your plants and harm your butterflies; but chemicals that kill pests, including organic pesticides, will also kill the butterflies. Instead of pesticides, you can rely on beneficial insects to keep pests under control. These insects will thrive in your butterfly garden, because they need the same things as butterflies: nectar and pollen, shelter, and many of the same kinds of flowers that butterflies prefer. Beneficial insects prey on the harmful insects that can damage host and nectar plants; if they run out of insects to feed on, they can live on nectar.

5. Provide plenty of water. Like any garden, your butterfly garden will need watering, weeding, and other regular attention to stay healthy and produce the abundant leaves, flowers, and nectar that attract butterflies.

Which Host Plants Are Best for Butterflies?
In the Midwest as well as other regions, butterflies have adapted to their environment, evolving alongside native plants in a mutually beneficial relationship. The butterflies depend on the plants for food, shelter, and egg-laying, and they help the plants survive by carrying pollen from one plant to another. Butterflies can be very choosy about which plant they use for feeding, egg-laying, and roosting. Many caterpillars will starve rather than eat the “wrong” plant. The adult female is careful to lay her eggs on the correct host plant, so the caterpillars will have plenty of food to fuel their change (metamorphosis) from larva into adult butterflies.

Populations of the rare Baltimore checkerspot butterfly have soared in areas that have benefited from prescribed burning at both Nelson Lake Marsh in Kane County and Bluff Spring Fen in Cook County.
Nectar Plants

Butterflies prefer composites (daisy-like flowers), panicles (large clusters of blooms on a stem), and umbels (flat topped flowers that originate from a single apex). These plants provide a good landing pad for the butterflies as well as easy access to their nectar. Butterflies also like flowers with strong colors, such as orange, yellow, and purple; and their sensitive sense of smell leads them quickly to flowers with a strong fragrance.

Keep a Butterfly Log

Once your garden is planted and the butterflies are beginning to visit, you can start a daily log to keep track of the kinds of butterflies that are attracted to your garden. A number of field guides are available to help you identify the various butterfly species common in the Midwest (see Further Reading). When you identify a particular species, jot down its name, the plants it visited, the date and time you saw it, and the weather conditions in a notebook, just like scientists do. You can also take notes on the kinds of butterfly eggs and caterpillars you observe. If you’d like to contribute to scientists’ efforts to catalogue the size and health of the Chicago region’s butterfly population, you can send your logs to: Education Department, Chicago Academy of Sciences, 2060 North Clark Street, Chicago, IL 60614.

Butterflies Your Garden May Attract

Black Swallowtails
Buckeyes
Cabbage Whites
Common Sulphurs
Eastern Tailed Blues
Giant Swallowtails
Great Spangled Fritillaries
Monarchs
Mourning Cloaks
Painted Ladies
Pearl Crescents
Question Marks
Red Admirals
Red Spotted Purples
Spring Azures
Tiger Swallowtails

These Perennials Are Good Nectar Sources

Wild Bergamot
Blazing Star
Cardinal Flower
Dogbane
Culver’s Root
Ironweed
Joe Pye Weed
any kind of Milkweed
New England Aster
Purple Coneflower
Pasture Thistle
Wild Quinine

Visit a Butterfly Garden in the Heart of Chicago

A special feature of the Chicago Academy of Sciences’ brand-new Nature Museum, opening this fall in Chicago’s Lincoln Park, is the Butterfly Haven, a permanent butterfly greenhouse. The exhibit will include a 28-foot tall atrium aflutter with 15-25 different species of live butterflies. Activities will encourage interaction with the unique environment without infringing on its magic and charm. Adjacent to the greenhouse will be a variety of interactive programs including a digital field guide and information about the life cycle, migration, behavior, and ecology of butterflies. The Nature Museum, at Fullerton Parkway and Cannon Drive, will open in October. For more information, visit the Chicago Academy of Sciences’ Web site at www.chias.org.

Further Reading:


This butterfly gardening primer courtesy of The Chicago Academy of Sciences.

Above: The bronze copper may visit your garden if you live near a diverse wetland. Photo by Ronald W. Kurowski.
Left: Monarchs on blazing star in the butterfly garden of Chris Kuehl of Homewood. Photo by Joe Nowak.
**PRATT’S WAYNE WOODS SAVED FROM ROAD—FERMILAB STILL THREATENED**

On May 21, DuPage County Board Chairman Bob Schillerstrom announced that a planned feasibility study to build a road through the 3,400-acre Pratt’s Wayne Woods had been called off. “An expensive study to possibly build a new road through Pratt’s Wayne Woods Forest Preserve does not make sense and would be a poor use of taxpayers’ money,” Schillerstrom said. Conservationists celebrated.

Two groups of conservation-minded citizens—SOLID (Save Open Lands In DuPage) and POP (Protect Our Preserves)—were instrumental in challenging plans for the proposed road. Speaking for POP, Dr. Doug Mains emphasized that a road through the preserve would set a dangerous precedent. Development interests had lobbied hard for the project. Earlier this spring, when the road appeared to be “a done deal,” Forest Preserve District President “Dewey” Pierotti courageously promised to veto any proposal passing the road through the forest preserve.

For Marge Marola, a Warrenville resident, the expressway proposal has been a recurring nightmare. Marola circulated petitions a year ago in opposition to the DuPage County Board proposal for extension of Eola Road into Fermilab. She collected 20 pages of signatures. But the county board approved an $850,000 environmental impact study for the Fermilab section of the project late last year. A broad spectrum of DuPage citizens, ranging from bicycle enthusiasts to dog walkers, have joined SOLID seeking to stop the Fermilab portion of the road because of concerns about traffic safety, loss of open lands, and declining property values. The group now has its own Web site and joined forces with POP to oppose the Pratt’s Wayne road feasibility study.

Alan Gard of SOLID notes that this road would follow the eastern route for the proposed (and highly unpopular) Fox Valley Expressway that bogged down in controversy in the early ’90s. Gard asserts that studies of routes through preserved open land have been wasting taxpayer money since the first study of roads through Pratt’s Wayne Woods in 1997. Although Schillerstrom’s decision to call off the Pratt’s Wayne study has cheered many DuPage residents, the fate of the road through Fermilab is still up in the air. That feasibility study is underway. The members of SOLID have pledged to find alternative solutions to the purported need for more roads in this part of DuPage County. For more information and how to get involved, see the SOLID Web site at www.travel.to/solid, or call Marge Marola at (630) 393-3301.

—Jim Kostohryz and Rickie White

**REFERENDUM LANDSLIDES**

On April 13, voters in Kane, Lake, and Will Counties passed Forest Preserve District bond referenda to acquire conservation lands by significant margins. “Getting such support by the voters of Will County (57 percent voted in favor) indicates that citizens are aware of the need to protect natural areas in response to the enormous growth in population expected in the next 20 years,” said Mike Pasteris, director of the Forest Preserve District of Will County. “The District intends to buy up to 6,500 acres of land, much of which lies along crucial waterways and next to preserves we already own.” In Lake County, where 66 percent voted in favor of a $55 million general obligation bond, Forest Preserve District President Carol Calabresa sees open space as integral to quality of life. “Lake County has 21,000 acres of preserved land and our goal is 26,000 acres,” she said. “We’d like 40 acres for every 1,000 people.”

Jon Duerr, director of field services for the Forest Preserve District of Kane County (where an identical 66 percent of voters approved a $70 million referendum) said, “Having this money allows all three counties (and DuPage County whose $70 million referendum passed last year) to get matching state and federal grants and expands the use of that money.”

—Alison Carney Brown

**PIPING PLOVERS INVITED**

Once common at all Great Lakes beaches, the federally endangered piping plover is now extremely rare, with only 12 known breeding pairs in this region. Ken Brock, author of *Birds of Indiana Dunes*,

As a graduate student at the University of Chicago a century ago, Henry Chandler Cowles studied changes in vegetation at the Indiana Dunes. His legacy? The discipline of ecology, a bog named for him, botanists galore, Chicago Wilderness. To commemorate the 100-year anniversary of Cowles’ classic dissertation documenting plant succession, The Field Museum, the Indiana Dunes Environmental Learning Center, and Chicago Wilderness sponsored a symposium on April 9 culminating in field trips and a communal dinner. First, it was sunny (above left). Then, during dinner, great gobs of hail clattered on the metal roof of the new Learning Center and bounced on the lawn (right). Memorable indeed.
says, “The problem is gulls and people; people trample nest sites and the ever-increasing colony of ring-billed gulls prey upon them.” But people are also the key to a brighter future for these little sand-colored shorebirds, whose numbers doubled in the past few years. With technical assistance from the US Fish and Wildlife Service, the Indiana Dunes National Lakeshore is establishing three nesting sites with hopes of attracting piping plovers to their historic nesting areas on Lake Michigan beaches. The sites are fenced exclosures, 80 yards by 350 yards, on several beaches. “If grasses and other plant life are allowed to grow, piping plovers might find the protection they need to nest,” says Brock. “If we provide it, they’ll come.”

These nesting sites may also benefit common terns, which are seen regularly on the Indiana beaches but haven’t nested there in this century.

—Michael Graff

FIRST SUCCESS, THEN SHOCK TREATMENT

The Army Corps of Engineers is riding to the rescue of native fish in the entire Mississippi River drainage basin (and possibly the five Great Lakes) by installing an electrical gantlet in the Sanitary and Ship Canal north of Joliet. The threat? The round goby: a 3-to-6 inch, bottom-dwelling, Eurasian fugitive fish which made its great escape sometime in 1990 from the ballast of ships sailing from the Black and Caspian Seas. Recently gobies have been spotted swimming in the Sag Canal as far south as Blue Island, raising fears that they might use the man-made canal as a conduit to invade the Mississippi River system. Although gobies go for the taste of zebra mussels (another exotic invasive species that has overrun Lake Michigan), they also dine on eggs and young of native fish, including darters, log-perch, and trout.

The gantlet, a series of electrically charged railroad rails, will be placed along the sides and bottom of a 165-foot-wide, 25-foot-deep section of the canal between Lemont and Romeoville. This will deliver a 70-volt jolt to the fish and force them to reverse their southerly direction. Any masochistic fish that still wish to run the length of this electrical gantlet would then encounter a progressively stronger electrical current, one that would eventually result in their death, preventing them from entering and endangering the Mississippi River ecosystem. (According to the Army Corps of Engineers, the electrical field will not be strong enough to harm pets, livestock, or people. Anyone accidentally coming in contact with the gantlet would merely experience the tingle of needles and pins, similar to a foot falling asleep.)

The gantlet is a demonstration project testing the effectiveness of an electrical field as a deterrent. Says project manager Dave Handwerk, “We want to see how well electrical fields reduce, slow down, or stop fish migration in both directions. For decades, the channel was too polluted for fish to live there. But with recent successful efforts to clean up our waterways and control discharge, the water quality of the canal has improved, allowing fish to travel through the canal. The goby is our test species, but we also want to see if we can prevent fish from the Mississippi that are not native to the Great Lakes from migrating northward.”

The first phase of the project is scheduled for testing by the year 2000.

—Eugene Bender

SAVE THE DATES

On August 14 and 15, come to Brookfield Zoo between 11 a.m. and 4 p.m. for Water Festival, celebrating the opening of the Salt Creek Wilderness. The Wilderness is 10 acres of wet habitat including Dragonfly Marsh, a one-acre demonstration wetland exhibit featuring a boardwalk and covered viewing area that overlooks a sedge meadow, a wet mesic prairie, emergent area, and two deep pools.

This exhibit complements the zoo’s other wetland exhibit, The Swamp, which includes the Illinois River Scene exhibit with underwater viewing of North America river otters, alligator snapping turtles and several species of fish. Water Festival will include activities for children, booths set up on the zoo’s west mall featuring displays, and activities presented by the zoo and other conservation organizations. For information, call (708) 485-0263 x879.

On August 22, Dr. Gerould Wilhelm, principal environmental scientist with the Conservation Design Forum, Inc., will speak on the latest ecosystem preservation and restoration efforts in Illinois with a look to the future. Held from 2 p.m. to 4 p.m. at Wolf Road Prairie’s 31st Street kiosk, this Project Millennium event is sponsored by the Save the Prairie Society in cooperation with The Field Museum. Contact Valerie Spale at (708) 865-8736 for reservations.

Join thousands of people who love Lake Michigan by participating in Beach Sweep/Coastal Cleanup ‘99 from 10:00 a.m. to noon on Saturday, September 18. Visit the Lake Michigan Federation’s Web site at www.lakemichigan.org or con...
tact Matt Brett at LMF033@aol.com or (312) 939-0838 for more information.

September 25 is National Public Lands Day, an annual event designed to bring thousands of citizens to public lands—national parks, national forests, Army Corps of Engineer recreation sites and Bureau of Land Management holdings—for hands-on restoration work and conservation education. At Midewin National Tallgrass Prairie in Will County, volunteers are invited to collect seed from native grasses and plants in the seed nursery, to remove non-native woody brush, to grasses and plants in the seed nursery, to improve grassland bird habitat by removing and building fences, and to work on a potential trail project. Escort public tours of Midewin will also be available that day. For more information, call Portia Blume-Gallegos at (815) 423-6370.

NEW MEMBERS

On March 17, Chicago Wilderness welcomed 12 new members. The Calumet Environmental Resource Center of Chicago State University is an “information clearing house” of environmental and economic development resources (such as aerial photos, reports, and maps) for the Calumet region of southeast Chicago and northwest Indiana. The College of DuPage manages 40.5 acres of nature preserves and offers restoration tours, facilities for ecological conferences, and more than 100 classes about ecology and nature, including the region’s only regularly offered class on prairie ecology. Through real estate transactions, demonstration projects, and education and community-based activities, The Conservation Fund designs creative conservation measures for land and water resources. In addition to providing year-round recreation programs, facilities, and parks for district residents, Downers Grove Park District actively manages 160 acres of natural land, seeking to protect and restore their vigor and diversity. The Environmental Law and Policy Center of the Midwest works through legal and policy advocacy to shape transportation and energy policies that prevent sprawl, protect air and water quality, and conserve our natural areas. Education and community programs offered through the Garfield Park Conservatory Alliance promote an awareness of the variety and interdependence of living organisms, and encourage participation in biodiversity protection. The Geneva Park District offers adult, youth, and family classes and programs at Peck Farm Park, a nature interpretive site also intended to increase diversity of plants and animals through prairie restoration, streambank stabilization, and butterfly gardens. The Glenview Prairie Preservation Project seeks to preserve and protect the prairie remnant at the former Glenview Naval Air Station through public education and programs. The Illinois-Indiana Sea Grant College Program at Purdue University seeks to foster the creation and stewardship of an enhanced and sustainable environment and economy along southern Lake Michigan and in the Great Lakes region through research, education, and outreach. The Indiana Dunes Environmental Learning Center seeks to provide educational and inspirational experiences at the Indiana Dunes National Lakeshore to foster understanding of and appreciation for the natural environment. Lake Forest Open Lands Association is dedicated to the conservation and restoration of open space within Lake Forest and the surrounding area through land acquisition, habitat restoration, public education, and advocacy. The Trust for Public Land seeks to acquire land on behalf of the general public for the preservation of native plants and animals in their biotic communities. Information about Chicago Wilderness organizations is available from the Chicagoland Environmental Network at (708) 485-0263 x369.

BIRD STATS

Four hundred twenty birds have been documented in Illinois, most of them in the Chicago Wilderness region. You’ll find these birds listed in taxonomic order in the new Illinois State Checklist. Published by the Illinois Ornithological Society, this 20-page booklet provides a complete listing of the state’s avifauna, including threatened, endangered, migratory, and breeding status. Getting a new species added to the state list requires documentation and a unanimous vote by the Illinois Ornithological Records Committee. One of the more recent Chicago Wilderness additions was a gull-billed tern discovered and photographed by Eric Walters at Waukegan’s Municipal Beach on May 31, 1997. As of 1998, Tom Pucelik held the record for the highest number of birds seen in Illinois—386. Kevin Richmond was in second place (383), barely beating out Richard Biss (382). To obtain the new state checklist, send your name, address, and $3 to the Illinois Ornithological Society, State Checklist, PO Box 931, Lake Forest, IL 60045.

—Sheryl De Vore

LIVING COLOR—REALLY

For those seeking some delicious food for thought this summer, consider dipping into “Nature, Polis, Ethics: Chicago Regional Planning,” a special supplement published by the Hastings Center with tasty, intellectually challenging essays by several Chicago Wilderness luminaries. Topics such as civic faith and public theology, democratic ecological citizenship, regional planning, and evolutionary biology—all as they relate to the Chicago region—are addressed in this 40-page booklet. To order the report for $5 each, call The Hastings Center at (914) 424-4040; fax (914) 424-4545; mail@thehastingscenter.org. The report is also available online at www.chias.org.

On April 26, a black, orange, and bluish spicebush swallowtail was the first butterfly to flitter into the brand-new, yet-to-be-unfurled indoor “Butterfly Haven” at the Chicago Academy of Sciences. The 2,700 square foot glass enclosure will soon be home to 25 different native butterfly species, including giant swallowtails, tiger swallowtails, painted ladies, and monarchs. Enrollment plans call for 800 butterflies and 1,000 plants and trees in the new Peggy Notebaert Nature Museum located in Chicago’s Lincoln Park, scheduled to open in late October. More butterflies were introduced on May 21st, when
elementary school students from Glenview's Westbrook School and Glengrove School released 100-200 butterflies they had bred into the Haven.

As one of 25 year-round exhibits of living butterflies in the country, the Judy Istock Butterfly Haven is the only one dedicated to native species. Founded in 1857, the Chicago Academy of Sciences was the first museum in Chicago and is today the only museum to specialize in the ecology and natural history of the Midwest.

—Nicole Kamins

RABB HONORED

In April, Dr. George Rabb, director of the Brookfield Zoo and former chairman of the World Conservation Union's (IUCN) Species Survival Commission, received the Conservation Medal from the Zoological Society of San Diego, its highest honor. The award recognizes Dr. Rabb's continuing leadership, vision, and service to conservation worldwide. He joins a prestigious list of former Medal recipients including Dr. Jane Goodall, Prince Philip of Britain, and Sir David Attenborough. Dr. Rabb also serves as co-vice-chair of the Chicago Region Biodiversity Council, the governing body of Chicago Wilderness. He is vice-chair of communications for the World Conservation Union's Species Survival Commission and has been a conservation advisor to a variety of organizations including the World Bank, the US Marine Mammal Commission, and the US National Research Council. (Plus, he loves frogs.)

GLENVIEW PRAIRIE—MORE TO LOVE

Fortunately for 150 native plant species—and for us and other critters too—members of the Glenview Prairie Preservation Project (GPPP) have been working hard to achieve their goal of protecting more land at the now-decommissioned Glenview Naval Air Station. In 1998, the Village of Glenview agreed to protect 14 acres of the prairie—habitat for rare species such as the upland sandpiper, Craw's sedge, golden sedge, and mountain blue-eyed grass—on the 1,120 acre site of the former Naval Air Station (Winter '98, p. 27). In mid-March of this year, following concerted lobbying by the GPPP and a second round of public hearings, the Glenview Village Board unexpectedly voted to preserve an additional nine acres of buffer space surrounding the prairie. The site will be part of an approximately 1,020 acre multi-use complex that includes commercial and residential uses, a 140-acre

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Each purple loosestrife plant produces between 100,000 and 1,000,000 seeds each year. Both Illinois and Wisconsin have banned the sale, distribution, planting, or cultivation of this plant because of the damage it causes to wetlands.
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As partners in this exciting, pioneering effort to restore our natural systems, we applaud the efforts of all Chicago Wilderness organizations. And we invite your inquiry regarding our ecological consulting qualifications or seed and plant availability (Chicago region ecotype) from our native seed nursery, Taylor Creek Restoration Nurseries.

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Brodhead, Wisconsin 608.897.8641 • email: appliedeco@brodnet.com
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Website under construction – www.appliedeco.com
A plant of chemical extremes, the grass pink orchid thrives in acid (low pH) bogs and alkaline (high pH) fens. It is not found in between.

Beauty and the Beast

S

Sometimes rare insects eat rare flowers. Naughty bold trees may shade out defenseless rare grasses. Sometimes the fires that revive the prairies kill rare snakes.

The facing page shows Wolf Road Prairie at sunrise—in more ways than one. A girdled dead tree marks the spot where an ancient ecosystem, recently dying of shade, is happily growing its way back to health.

The photo on this page shows a different drama: grass pink and a katydid eating it. The rare grass pink (Calapogon) is our only “upside down” orchid. (You’ll notice that, unlike most orchids, the fancy petal is on the top.) A katydid is enjoying the flower buds, at least its favorite parts of them.

Most orchids are rather rare. Never are they, like grass or oaks, the dominant vegetation. If certain types of plants do too well, then their consumers do too well. They eat the plants massively, and the population crashes. Some species can only prosper as relative rarities. Yet not too rare. When the population gets a bit too small, its genetic diversity (and with it the population or species) flickers out.

Thus, populations need a certain tippy balance. That means, in many cases, they need large habitats—or many interconnected small ones. That’s the only way that low-frequency species can sustain sufficiently many individuals to maintain their gene pools.

Thus, invading common trees—though they may kill off only a portion of a fen—may doom some of the low-frequency animal and plant species that have lived there for millennia. As the habitat shrinks, some species drop below sustainable numbers. One solution is to cut trees and herbicide stumps. But, killing a tree by girdling (removing a strip of bark) leaves a standing snag which ends up being recycled multiple times. Like the twin trunks at Wolf Road, snags first serve as home for varied woodpeckers, crested flycatchers, eastern bluebirds, deer mice, beetles, and mushrooms, in fact, an uncountably long list of temporary tenants. Years later, the fallen trunk hosts a different menagerie. And when the old log ultimately burns, it prepares the way for rare fugitive plant (and probably animal) species that live in the brief habitat of char. Ancient ecosystems have diverse niches, which is why the biodiversity of those systems depends on the ancient processes (like fire, grazing, predation, flood) that maintained all those niches.

Thus, the stark silhouette of a burned or girdled tree evokes a profound idea. Without the harshness of consumption, predation, fire, and disease, we would not have the juicy richness of nature.

In the new discipline of the stewardship of creation, people learn to re-start natural processes, or provide substitutes for them. We plant precious seeds and carefully tend fires. We reverently nibble at the bark of selected trees as destructively as a katydid nibbles at orchids. Like hunter-gatherers, stewards become a force within nature. When we successfully restore balance, we celebrate the countless species of ancient systems that we have discovered are our friends and neighbors.

Orchid photo by Casey Galvin. Photo of Wolf Road Prairie in Westchester, II. (facing page) by Todd A. Bannor. Words by Stephen Packard.
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No way was Floyd Swink parochial in his passions—he’d teach anybody about plants, ice cream, baseball, Latin. That’s been his habit for 50 years. See page 25 for more on the man who made plants fun. Photo from the cobwebby archives of the Cook County Forest Preserve District.