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 more than 60 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 new quarterly magazine that seeks to articulate a vision of regional identity linked to nature and our natural heritage, to celebrate and promote the rich natural areas of this region, and to inform readers about the work of the many organizations engaged in collaborative conservation.
Native Prairie
Twilight or Dawn?

To many of our neighbors, prairies seem foreign and unattractive, second cousin to the trash-filled vacant lot. Typically, we’re uncomfortable with what we don’t know. As Verie Sandborg notes in her essay on page 30, one could easily be a native of these parts and never have encountered what was once the dominant landscape of this region. The Midwest’s sea of grass—a rich mosaic of prairies, oak woods, and marshes—was virtually eradicated within the span of a single human lifetime. Today, less than one-hundredth of one percent of high-quality native prairie remains.

Because there is so little left, it’s not easy to know the prairie, and thus not easy to love it. We grew up with gorgeous images of Yellowstone, the Grand Canyon, and Yosemite splayed before us. This was Nature resplendent, true Nature fine and pure—or so we were told. No one told us about the prairies.

But it was in the prairies that modern humanity would learn a shocking secret about nature. Leaving nature alone isn’t enough. Leave prairie alone, and we lose it.

Thus, by necessity, prairies became the places where humans began to develop a new interrelationship with nature. Alarmed at the loss of their native landscape, people in this region worked to save the remaining parcels—not by erecting a fence and staying out, but by tending to the land and making amends. This meant re-introducing natural processes such as controlled fire; restoring some of the original hydrology, and bringing back species—plants, butterflies, mammals, turtles—whose populations had been severely threatened.

Now rarities such as Cooper’s hawks and the prairie white-fringed orchids are reappearing through the caring intervention of human stewards. Restoration has taught us that people have an essential role to play in the future of nature, that we can think beyond being users, or abusers, of nature. We can, in fact, become stewards of our natural communities. Thousands of people throughout the region are now working at hundreds of sites to learn about and restore the best of what survives of our original landscape. The stewards will tell you that our native prairies, open woods, and wetlands are beautiful and subtle, bold and surprising; that the journey of discovery is joyful and profound—and often totally fun.

But don’t listen to these people. Get out in the wilds and see for yourself. Look nature in the eye. Lend a hand if you want to. Enter the Discovery Zone. Become a native in our native land.
FEATURES

BORN TO BURN by Alex Blumberg ........................................ 4
Its landscape flattened by violent glaciers—molded by fire for millions of years—the tallgrass prairie teeters on the edge of extinction. People have been scourge to nature; now only people can save it.

GEMS OF THE BUG WORLD by Jill Riddell ......................... 10
Ecologists find butterflies to be great barometers of ecosystem quality. “Citizen scientists” bring home the data.

DEPARTMENTS

Into the Wild ................................................................. 13
Our guide to the best natural areas of the region. In this issue discover five first-rate prairies—famous and little known—plus listings of prairie work parties.

Natural Events Calendar .................................................. 20
What’s debuting on nature’s stage this season, with tips for where to see, hear, and find Chicago Wilderness.

The Prairie Shopping Mall ................................................ 21
Native American and pioneer consumers found everything they needed on the prairie.

Meet Your Neighbors ...................................................... 22
Meet the red bat and elegant prairie walkingstick. Meet the Hoffman Dam River Rats and Ray Schulenberg, the Morton Arboretum’s pioneer of prairie restoration.

News from Chicago Wilderness ....................................... 26

Guest Essay .............................................................. 30
Encountering a Prairie, by Verie Sandborg. This Midwestern native describes encountering her first prairie in her fifties—and how it changed her life.

Reading Pictures ........................................................ 32
Stroking.
or most of the last few thousand years, two seas converged on the spot where Chicago now stands. One was blue, the other green. The blue sea, Lake Michigan, still pounds against the shore as it always has. But of the green one, the prairie, little remains. To see it as it once was, we have only the accounts of awestruck settlers.

“The view beggars all description,” confessed W.R. Smith, traveling through the Wisconsin prairie circa 1835. Smith was not alone in his opinion. The prairie confounded every 19th century diarist, letter writer, and scribe who sought to render its grandeur in prose. Here’s what the plucky Smith came up with:

“An ocean of prairie surrounds the spectator whose vision is not limited to less than 30 or 40 miles. This great sea of verdure is interspersed with delightfully varying undulations, like the vast waves of the ocean.”

It must have been a stunning landscape to produce such breathless and ineffectual description. The irony is that the same settlers who preserved it for posterity in their journals plowed and grazed it nearly to oblivion. Tallgrass prairie once covered 60 percent of Illinois. Today, less than one-tenth of one percent of the landscape fits that description.
**How Prairies Evolved**

Mountains trap weather. They catch the prevailing wind and bind it into clouds, corral those clouds, and fatten them until they rain. To the lands leeward, mountains serve as a giant dehumidifier, draining the air of all its moisture before letting it pass. They cast what is called a rain shadow. Around 20 million years ago, give or take an eon, the two tectonic plates that met along the western half of North America collided, crumpling what had been a relatively smooth section of a relatively smooth continent into the jagged wreckage of the Rocky Mountains. It was in the rain shadow of the Rockies, five to seven million years ago, that the North American prairie probably began to evolve.

Conditions are tough in the rain shadow. It’s dry. Temperatures regularly top 90°F in summer and drop below zero in winter. Then there’s the ungulate problem. The appearance in the fossil record of long-legged beasts with high-crowned teeth good for grinding vegetation coincides with the appearance of the first prairie plants. That’s the thing about natural selection. As soon as you come on the scene, something else evolves to eat you.

The plants of the prairie, under the ruthless guidance of natural selection, adapted to these new conditions. They developed ingenious techniques to convert as much of the sun’s light into energy as was possible without simultaneously overheating. These included growing their leaves small and thin to maximize both surface area and the wind’s convection-cooling effects, blanketing them with hairy spindles to diffuse the sun’s rays, or coating them in waxy residue to prevent water loss.

Most prairie grasses use a distinctive chemical pathway that allows them to photosynthesize quickly and use water efficiently at high temperatures. And the roots of many prairie plants burrow deep into the ground, some as far as 20 feet. This serves the dual purpose of storing water and nutrients during drought seasons and facilitating regrowth after grazing. But desert grasslands would have turned to scrub and tallgrass become forest except for one lively characteristic of this planet: lightning starts fires.

**Fire**

In the rain shadow, dry winds and cyclic drought turn grassland to tinder, making wildfires sparked by electrical storms a frequent occurrence. By locating their buds underground, where they are insulated from the flames, the prairie plants evolved to withstand these semi-regular torchings.

But calling the prairie fire-adapted is like calling human beings oxygen-adapted. It’s not that the prairie survives in spite of fire. The prairie needs fire to survive. Fire keeps the prairie free of faster-growing, sun-stealing weeds less tolerant of immolation. Fire clears the prairie of brush and allows sunlight to penetrate to the young grasses and flowers below. In years without fire, excess organic matter accumulates, plant populations decline, and the prairie slowly chokes on its own detritus. But after a fire, the prairie produces twice as much biomass as it did the previous year.

In other ecosystems, plants’ parts decay rapidly, leaving little behind to fuel a fire. Maple leaves, for example, melt quickly into the forest floor soon after falling. Prairie plants, by contrast, might as well cover themselves with dried newspaper every autumn. Their stalks persist—brittle, stiff, and highly combustible—for seasons on end. The grassland was made to burn. On flat land, in almost any climate conducive to periodic wildfires, it flourishes.

The prairie was a huge place and species varied widely depending on soil conditions, drainage, temperature, and rainfall. Even within a one-acre plot, conditions could shift from wetland fen to dry gravel prairie. Generally, though, the entire prairie biome can be divided into three distinct regions—shortgrass prairies to the west, tallgrass prairies to the east, and mixed grass prairies where they overlap. Shortgrass prairies, which dominate from the base of the Rockies to central Nebraska, consist of plants a foot or less in height and requiring less than 20 inches of precipitation a year. Further east, the rain shadow starts to blur, precipitation increases, and the tallgrass prairie rules.

The tallgrass prairie incorporates species from the shortgrass prairies to the west, but also drought and fire-adapted species that evolved on the dunes, plains, and oak or pine savannas of the Atlantic seaboard. This mix, combined with higher precipitation levels, produces taller plants, some up to six or eight feet in height.

But higher precipitation also favors non-grassland ecosystems. While the western edge of the shortgrass prairie has

**Calling the prairie fire-adapted is like calling human beings oxygen-adapted.**

**The prairie needs fire to survive.**
held stable at the Rockies for millions of years, the eastern edge of the tallgrass prairie has surged and receded in a constant battle with the hardwood forests across the Mississippi River. Ice ages, periods of warming and cooling, precipitation, and drought all contribute to the boundary’s continuous redrawing. Most scientists agree that our current prairie arrived in Illinois about 8,000 years ago, when a period of dry, hot weather called the hypsothermic interval probably gave the prairie the edge it needed to roll east, forming “the prairie peninsula” through most of Illinois, and parts of Wisconsin, Indiana, and even Ohio.

According to Dr. Roger Anderson, a biologist at Illinois State University, “[M]ost ecologists believe that prairie vegetation in the eastern United States would have largely disappeared during the past 5,000 years had it not been for the nearly annual burning of the prairies by the North American Indians and the prairie fires set by lightning.”

Early settler accounts describe Native Americans using fire to hunt bison. Other experts theorize that pre-settlement peoples ignited the prairie with the less direct goal of resource management. Grazers such as elk, deer, and bison prefer newly burned prairie. Perhaps tribes in the region burned to maintain the productivity of their hunting grounds.

Humans have played both steward and scourge to the prairie. This ancient ecosystem’s survival into the 21st century requires our mastering a new role—savior.

American Indians and the prairie fires set by lightning.”

What was surprising about the disappearance of this field, called the Riverside Prairie, was that it was not sacrificed on any of the typical altars: cropland, cow pasture, or strip mall. In their quest to find out why it still died, the authors of the paper, the eminent ecologist Victor E. Shelford and his colleague G.S. Winterninger, demonstrate how in the face of thunderous and widespread human impact on the environment, doing nothing to the land can be just as destructive as covering it with parking lot. One would think the prairie’s demise would have started in 1870.

Developers that year gouged a wide, arching corridor of dirt out of the prairie’s eastern half, the beginning of what they dreamed would be a tree-lined street in a wealthy residential neighborhood. But when the development scheme tanked at the collapse of the Chicago real estate market, the prairie surged back to reclaim the bare earth. By the time the spot was photographed in 1907, only the slightest grade in the land gave any hint the prairie ever suffered disturbance.

The prairie’s downfall came later, but not when the authors say it did. They trace its decline back to 1926, when a particularly bad year for mosquitoes provoked an unfocused but intensive abatement program. The authors describe one of the measures taken this way: “[O]n or before 1934 the mosquito abaters made a ditch about two feet deep east of the shoulder of the First Avenue pavement.” “Mosquito abaters” and their ilk continued to work, digging more ditches, paving roads, constructing a retention pond. Although the prairie itself was not touched, cumulatively the modifications wrought profound changes on the area’s hydrological dynamics. The scientists’ conclusion: “The invasion of the prairie by scattered trees and shrubs was without doubt largely due to a general lowering of the water table and weakening of the grasses.”

In identifying hydrological tampering as the principal

Humans have played both steward and scourge to the prairie. This ancient ecosystem’s survival into the 21st century requires our mastering a new role—savior.

A Prairie Dies

There’s a photograph, taken in 1907, of a meadow east of where Brookfield Zoo now stands, in Cook County, Illinois. Bluestem and June grass bow in the wind, wild onions droop petaled globes, and compass plants align their fan-like leaves to face the sun. A 1947 photograph from the same vantage point shows a different landscape: a field mottled with hawthorn thickets. The journey from the photograph of 1907 to the photograph of 1947—from primeval wilderness to young brushland—is chronicled in a small paper published in 1959 in the American Midland Naturalist. It’s titled “The Disappearance of an Area of Prairie in the Cook County, Illinois, Forest Preserve District.”

In identifying hydrological tampering as the principal
culprit, the authors picked the wrong guy from the line-up. Many years of research later, any expert will confirm that prairie flourishes in a wide range of soil moistures, but to survive it must burn regularly.

This dependence on fire is a challenge for conservationists. What do Americans think of fire? It burns down houses and scorches lawns. If consumed by flames, humans and our belongings don’t sprout anew in spring. Much of what people construct on the landscape—roads, irrigation ditches, bluegrass lawns, and fire departments—intentionally or accidentally retards the progress of flame across field. Thus modern humans deprived the prairie of an element critical to its survival. Today, scientists realize, had the forest preserve managers simply set fire to the Riverside Prairie once every couple of years, they could have saved it.

But this prairie was not saved. Today it’s a thick tangle of European buckthorn, an inverted distortion of the diversity there before, and a lesson that we as a species persist in not learning: even in a “hands-off” forest preserve our actions have consequences beyond what we can see.

Saving a Jewel

Santa Fe Drive runs through an industrial park at the confluence of I-55 and I-294 near Hodgkins in southwestern Cook County. Vehicles that can’t be operated with a standard drivers license rumble up and down its length. Football-field-sized hangars with names like Petrovend Chemical, Sealed Air Corporation, and Wonder Bread line its sides.

But there are other sights along Santa Fe Drive. Between the gravel berm of the Burlington Northern/Santa Fe (BNSF) train tracks and the frontage road along the Des Plaines River lurks one of the last virgin wildernesses in Illinois, the Santa Fe Prairie.

The 1979 Illinois Natural Areas Inventory (INA) identified this 10.8-acre site as grade A mesic and dry mesic gravel prairie. This means it’s a pristine prairie growing on gravelly, moderately wet soil. The INA originally identified three prairies of this type. One has since disappeared beneath the wheels of progress. Santa Fe is the largest of the remaining two in Illinois, perhaps in the world.

The Santa Fe Prairie survived initially by belonging to the Santa Fe Railroad. Railroad rights-of-way are typical places for prairies to survive. The first railroad companies generally acquired land in its pristine state.

A young Ph.D. candidate by the name of Robert Betz gave Santa Fe its second break. He was led there by the legendary plant taxonomist Floyd Swink, who had discovered the Santa Fe Prairie in 1946. Betz would later become “Mr. Prairie,” and his visit in 1959 as part of a field trip initiated the prairie restoration movement much as the apple falling on Newton’s head gave birth to the science of physics.

“I’d grown up in Bridgeport in Chicago, playing on vacant lots that we called prairies,” says Betz, now a retired professor of biology, “but when I got to Santa Fe and saw what an actual prairie was, why, I guess you could say I got prairie fever.” Betz continued his official career in molecular biology, but put most of his spirit in a parallel volunteer career. He developed an apostle’s passion for locating and restoring prairie remnants throughout the Midwest. In the mid-1960s, when BNSF considered covering the prairie with fill from the newly constructed I-55, Betz intervened. His appeals eventually persuaded the railroad not to develop the land.

Fast forward 20 years to Stan Johnson, a semi-retired research chemist at Argonne National Laboratories by day, executive director and chairman of the Illinois & Michigan Canal National Heritage Corridor Civic Center Authority (CCA) in his spare time. Johnson had heard about the Santa Fe Prairie, understood that it fell within CCA’s jurisdiction, but knew no one with first-hand knowledge of it. “In 1989,” he says, “I went to a natural areas stewardship conference at Moraine Valley Community College expecting to find the people representing the prairie. I kept asking around, but there was no group associated with it.”

Johnson volunteered his organization to coordinate advocacy efforts for the prairie, and some weeks later, accompanied by several stalwarts of the prairie restoration movement, he visited the site. “We were horrified to find that a giant oval track for off-road vehicle races had been carved in the middle of the prairie,” Johnson recalls. Following a certain amount of negotiation, the railroad generously granted volunteers permission to begin managing the land. The volunteers blocked vehicle access, put up signs, and began the process of restoring the degraded areas. Johnson started writing inch-thick grants, wading through multilevel corporate and governmental bureaucracies, and traveling down numerous dead ends. After a
decade of Johnson's hard work, a relatively intact Santa Fe Prairie finally concluded its passage from post-glacial landscape to 21st century wilderness haven when BNSF donated the land to the CCA. On June 16, 1998, a ceremony commemorated the site's official dedication as an Illinois Nature Preserve, a legal status that should guarantee its survival in perpetuity. Why does it deserve such a status? According to Karen Stasky, one of Santa Fe's volunteer stewards, because it's "the Midwest's equivalent to a patch of rain forest." Santa Fe harbors more than 250 plant species, including lilies, orchids, coneflowers, and wild grasses, most of which won't grow anywhere but high-quality prairie. Amid the loading docks and asphalt lots, the prairie persists much as it has for centuries, perhaps millennia.

Prophet of the Prairie

Dr. Robert Betz says every sentence as if it has a time limit. If the common name of the plant he's describing doesn't come to him, he'll use the scientific name instead. When he talks excitedly about something, which is pretty much all the time, he suggests a priest challenging the record for fastest Latin mass. It's the verbal quirk of a man always trying to do more than he can in the time allotted, and the biggest project he's been working on for the last 20 years is no exception. On 1,000 acres of cropland turned research facility at the Enrico Fermi National Laboratory in Batavia, Illinois, Betz seeks to create in one lifetime something nature took eons to assemble—a Midwestern tallgrass prairie.

For years, Betz had practiced a particular form of prairie restoration called remnant restoration. He searched the back roads and train tracks of Illinois, Indiana, and Missouri for pieces of the landscape that somehow escaped two centuries worth of plowing, so-called "prairie remnants." He often discovered them lurking in old settler cemeteries never planted with crops—tiny islands of native vegetation amid a patchwork sea of European and native cultivars like corn and wheat. Even if these unplowed cemeteries were overrun with weeds, the original vegetation hid out. One or two good burnings, a bit of strategic weeding, and the exotics faded out, the native species surged. "The prairie was there, you see," Betz explains. "You just had to give it room to come back." He traveled the state convincing local cemetery boards to let him light fire to old cemeteries, sprouting one- and two-acre pieces of prairie in his wake.

But one- and two-acre patches scattered among the corn fields do not an ecosystem make. The larger the prairie parcel, the greater diversity of fauna it can support. At the moment, not one high-quality black-soil prairie remnant exists in Illinois large enough to support a single pair of prairie birds. Betz dreamed of a restoration that could one day sustain a small herd of bison. He persuaded Fermilab to lend its grounds to his vision.

Since the Fermilab grounds had been previously farmed, the techniques of remnant restoration would not work there. Betz and his volunteers would have to attempt a plowed-ground restoration. The difference between the two types of restoration is the difference between healing the sick and bringing the dead back to life.

How do you grow an ecosystem from scratch? First, volunteers gathered seed from every prairie remnant in the area. After sowing them in the fall, Betz and crew returned in the spring to find, as he says in mock horror, "a whole field of weeds." Specifically ragweed, amaranth, witchgrass—the same exotic and native opportunists you'll find on every abandoned lot in Chicago. But hidden throughout, like grains of rice in a shag carpet, poked minute seedlings of the big bluestem, Indian grass, prairie dock, and other species the volunteers had actually planted. "I knew that these plants held a long-term ecological advantage," remembers Betz, "and would eventually push out the weeds." By the third year the balance had shifted, and that fall there
ism s—bacteria, fungi, and their ilk—on which certain stage-two and three prairie plants seem to depend. In earth that was never plowed or grazed, these organisms still teem much as they have for millennia. In earth below cropland, pasture, or pavement, however, they’re largely absent. These organisms appear to form symbiotic relationships with the more conservative prairie species—the lilies, gentians, and clovers from Betz’s litany. These relationships seem to boost the plants’ ability to carve out territory from the more ecologically tolerant matrix species, although no one can really say why or how. The soil below Fermilab is devoid of these crucial fungi and putting them back is much harder than making them go away.

Still, Bob Betz isn’t panicking, so neither should you. In the world of prairie restoration, where success is measured by the quarter acre, the Fermilab prairie is nothing short of a miracle. In 1974, Betz sowed his first 10-acre plot with prairie seed. Today, more than 1,000 acres rest beneath a swaying carpet of native grasses and wildflowers. A dedicated group of Fermilab groundspeople and volunteers manage the land carefully, conducting prescribed burns and quashing invasion by exotic weeds. Betz points out that “the soil folks [scientists from Argonne National Laboratory] have finally gotten together with the prairie people,” in a collaboration he’s certain will reveal new ways to improve and accelerate the restoration process.

And the species count grows every year. Betz projects the confidence of a man who, eventually, solves every problem he faces. Sure, remaking an annihilated ecosystem is a task similar to what faced a certain king, when a fabled egg took a great fall. But one suspects that if Bob Betz had been there at that wall, Humpty would by now be together again.
Contrary to what many conservationists have come to believe—that the greater the size of a natural area, the better its quality as habitat for plants and animals—researchers in the Chicago Wilderness region are discovering a more complex picture.

“The idea that ‘big is better’ is not as true as people think it is,” says Ron Panzer. A conservation biologist with Northeastern Illinois University and manager of the Indian Boundary Prairies in Markham, Illinois, Panzer studies prairies and the organisms that live in them. A noted expert on insects, he has found that a tremendous number of butterflies and other invertebrates thrive on relatively small patches of prairie.

“At 1,500 acres, Goose Lake Prairie Nature Preserve in Grundy County, Illinois, has the same number of butterfly species as the Gensburg Markham Prairie has in 150 acres,” Panzer says. “And I suspect the same is true for other insects.”

This is encouraging news for local bugs and the people who love them. While the success of butterflies on small sites isn’t an argument against increasing the size of nature reserves, in many cases natural areas are hemmed in by developed land impossible to acquire or restore. Until fairly recently, ecologists shook their heads over small sites and assumed they were seeing the last generations of prairie-dependent butterflies ever to grace those lands. The reasoning was that when a butterfly population is small, any unfavorable occurrence, such as a change in the water table or a blight on the caterpillar’s host plant, might wipe out the population. While this
possibility and the rule that large populations are less vulnerable haven’t changed, Panzer and other insect specialists are finding that extremely rare species continue to surprise us all by thriving in precariously tiny spots.

**Thriving on Small Sites**

“For many insects, 20 acres may be large,” Panzer says. “A 20-acre site can support numerous prairie-requiring butterflies.”

As preserves go, even in the Chicago area, that’s small. There’s more land inside a highway cloverleaf. But there’s evidence that butterflies requiring wetter-than-average conditions may be able to stick it out in patches even tinier than 20 acres. Doug Taron, a molecular biologist who has developed an expertise in Chicago region butterflies from a decade of intense study, knows of a privately owned, three-acre site in McHenry County in which Baltimore checkerspots, eyed browns, Acadian hairstreaks, and various sedge-eating skippers are getting along just fine. All are considered “remnant-dependent” species, meaning they can live only in high-quality natural areas.

While that’s good news for butterflies that don’t mind getting their feet wet, some upland species do seem to require stretches of habitat greater than 20 acres. Taron believes some species of butterflies of tallgrass prairie require closer to 100 acres of appropriate habitat.

And some species need much, much more than 100 acres. The regal fritillary in particular likes to stretch its wings and fly long distances. “The regal fritillary may require 1,000 acres,” says Panzer.

While it is blessed with a rich array of butterfly life, the Chicago region also has the people resources necessary to understand butterflies well enough to help them thrive.

In northwest Indiana, Ralph Grundel of the U.S. Geological Survey’s Biological Resources Division is running an extensive program to learn the habits of and improve conditions for the Karner blue butterfly. A federally-endangered species, the Karner blue’s reliance on wild lupine as the sole food for its caterpillar is well-documented. But Grundel’s five-year research program has gone far beyond such basics, helping biologists learn the insect’s strengths and frailties.

It turns out that, unlike the free-ranging regal fritillary, a Karner blue stakes out a relatively small territory. In the Indiana Dunes, Grundel found it was unusual for a Karner blue to strike out farther than 100 meters from home, and less than five percent ever flew farther than 500 meters. Grundel’s discovery teaches land managers that if habitat for one of the subpopulations in a chunk of lupine-rich oak savanna is ruined, the Karner blues can’t just pick up and fly along to the next amenable remnant a mile down the road, the way some butterflies would. In fact, at the Indiana Dunes, the parkland is divided into east-west units separated by two steel mills. Karner blues number in the thousands on the west unit. None have been seen on the east since 1976.

Grundel also determined specific habitat needs of males and females. The males spend 90 percent of their time in sunny openings, while females spend time in sun and partial shade. The females can’t know under what conditions lupines will fare best in a given year, so they lay their eggs in varying types of canopy. Research like this can help land managers make better decisions about how open a savanna should become, and how much shade is optimal.

**Butterflies and Fire**

Ron Panzer is in the process of completing a five-year study on the impacts of fire on invertebrates. He has found that in the year following a burn there are significantly fewer numbers of butterflies. However, one year later, the butterfly population has generally recovered. To survive long term, prairies require fire, and certain butterflies require prairie. So while individual eggs or larvae may be hurt by a fire, the population of prairie butterflies increases as the overall quality of the prairie improves.

One of the more inspirational efforts underway to protect Chicago’s butterflies is the volunteer monitoring
network (see photos, page 29) led by Doug Taron, now of the Chicago Academy of Sciences. A crew of 45 lepidoptera-literate volunteers have committed themselves to monitoring butterflies at 35 sites around the region. The protocols are based on a British system in which an ecologist walks a predetermined transect across a preserve and records every butterfly identified within 10 meters of the path. Participants in Taron’s network commit to visit their assigned preserves four to six times between mid-June and the end of July.

Over time, the information accumulated by the volunteer monitors becomes increasingly valuable. “Individual year-to-year variation doesn’t mean very much,” Taron says. Weather affects the growth of plants the caterpillars depend on, and one year there may be more parasites on that type of plant than in another, resulting in a temporary plummet. “We have to collect data long enough that real trends can be seen over the background noise.”

With monitoring information in hand, managers can take butterflies’ needs into account in decisions about habitat restoration. A simplistic scenario would be that the population of a particular butterfly living in a brushy prairie receiving no restoration assistance begins to decline. The land manager takes note of the butterfly monitor’s report of diminishing butterflies, and therefore changes priorities for this site in restoration plans. Others can use monitoring data to educate county boards or state legislators about what land needs to be acquired to protect butterflies.

**Butterflies as Barometers**

Butterflies lend themselves well to a monitoring effort. The number of species is manageable; there are approximately 100 different kinds in the Chicago area. Unlike other insect groups, most butterfly species are simple to identify. One can study butterflies without having to destroy them, whereas some other insects are too difficult to conclusively identify in the field. Butterflies are active during the day, so researchers don’t need special nighttime equipment. It’s possible to survey butterflies without having a large impact on the preserve—many volunteers become proficient enough to identify them on the wing and don’t need to catch them.

There are many readily available field guides. And about a third of butterfly species are dependent on high-quality natural areas. Both these factors make them a logical selection for study.

However, there are drawbacks to using butterflies as indicators of the health of an ecosystem overall. “They’re just one group of insects,” Taron cautions. “We couldn’t possibly study each and every insect group as thoroughly. [Butterflies] are a good proxy, but you simply can’t automatically apply what we know about butterflies to every other insect.”

Still, before the butterfly network, most preserves had no monitoring of any invertebrate animals. Butterflies—and the folks who appreciate them—have added a new dimension to the stewardship of nature.

**Jill Riddell is a writer who does most of her butterfly observing in parts of the Chicago Wilderness with a little less concrete than her Bucktown neighborhood. She writes frequently on nature for WBEZ Radio and Chicago Magazine.**

---

**See page 14 to learn more about local butterflies.**
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.

If you would like to learn more about restoration activities near your home, attend one of the WORK PARTIES or WALKS listed on the following pages. Volunteers, under the guidance of landowners, lead work parties and tours of the sites where restoration is taking place. Long pants, long-sleeved shirts, sturdy shoes/boots, a hat, and sunscreen/insect repellent are recommended. Pre-registration is not necessary, although you may want to call ahead in case of questionable weather or possible schedule changes. Families are welcome at most events. No experience is necessary.

1. POPLAR CREEK—Cook County
2. WEST CHICAGO PRAIRIE—DuPage County
3. INDIAN BOUNDARY PRAIRIES—Cook County
4. LOCKPORT PRAIRIE—Will County
5. POWDERHORN MARSH & PRAIRIE—Cook County

Maps: Lynda Wallis
Making Friends with Butterflies

by Jill Riddell

VISIT A LIVE EXHIBIT.

• At the Field Museum’s “Living Colors” exhibit, there are 38 species of local, living butterflies on display in a screened-in area with native plants outside the Museum’s north entrance. The exhibit runs through Monday, September 7. Open every day, 9:00-5:00. Admission to the exhibit is $4 for adults, $2 for children. Field Museum of Natural History, Roosevelt Road and Lake Shore Drive, (312) 922-9410.

• Beginning in the spring of 1999, the Chicago Academy of Sciences will have a continuous display of free-flying Illinois butterflies in a 2,700-square-foot greenhouse in its new home, The Nature Museum, at Fullerton and Cannon Drive along the Chicago lakefront. The Academy will also undertake the challenge of breeding certain rare species in captivity to help re-establish populations at natural areas in the Chicago region, (773) 549-0606.

TAKE A TRIP WITH A FIELD GUIDE.

• Butterfly guides abound—here are the best. You may need both the Peterson and Audubon guides, as they have different strengths; between the two you should be able to identify most of what you find. Also, the relatively new “Butterflies Through Binoculars” offers a wonderful breakthrough in butterfly observation. Emphasizing features that can be seen on living butterflies floating around in the real world rather than on mounted specimens, the book brings butterfly watching one step closer to bird watching. All that’s needed is a pair of binoculars capable of focusing five or six feet away.


Butterflies Through Binoculars: A Field Guide to Butterflies in the Boston-New York Washington Region. By Jeffrey Glassberg. Much of it is applicable to our area. A new version for a larger area that will include ours (called Butterflies Through Binoculars: The East) is expected soon.

• For inquiring minds:


“Effectiveness of A Vegetation-Based Approach to Insect Conservation.” By Ron Panzer. Conservation Biology, Vol. 12, 1998. pp. 693-702. This article demonstrates statistically that land managers who rely heavily on plant conservation efforts often end up doing a good job protecting insects as well.

BECOME A VOLUNTEER BUTTERFLY MONITOR.

• Volunteers are trained in identification and monitoring techniques. The ideal monitor would be someone who already has a general knowledge of the most common kinds of butterflies, though it doesn’t take long to learn them. Contact The Nature Conservancy for information, (312) 346-8166.
Poplar Creek Prairie and Woodland comprise a big and beautiful 600 acres of Cook County Forest Preserves in Hoffman Estates. It’s also part of the 4,200-acre complex of Poplar Creek Preserves. And it links up (via a conservation easement through the international offices of Sears) with yet thousands more acres in the Spring Creek Preserves south and west of Barrington.

All this land is great habitat for animals and has great restoration potential, but the best quality is in a few hundred of these 600 acres. Dry prairie on a gravelly, well-drained hill slopes down to mesic prairie and finally to wetland communities.

Poplar Creek has 125 different species of native plants and, although most of the land was farmed for more than 100 years, there are surprisingly few exotic species. The Poplar Creek Prairie Stewards have worked on the site since 1989, assisting with prescribed burns, reseeding and planting native species, and pulling of exotics. Back then, more than 80 volunteers planted 8.4 miles of contour strips, 20 feet wide and 40 feet apart. Nearly a decade later, the strips are dense tall prairie, and the land between is starting to be recolonized by natives as well.

Another benefit of the size of the area is that certain animals—especially grassland birds such as bobolinks and savanna sparrows, which require large areas to breed, settle, or nest—find this large prairie adequate to their needs.

Visitors will find prairie plants such as wild false indigo, penstemon, seneca snakeroot, lead plant, blue eye grass, and many others. Coreopsis, coneflowers, prairie blazing star, and others make the prairie a feast of color during the summer. One may also find unusual plants like porcupine grass, which has long, needle-like seeds. Dropping to the soil, these seeds twist and bend in response to changes in humidity, literally corkscrewing themselves into the soil.

In the lowland areas, volunteers are removing drainage tiles to restore the natural wetland hydrology.

In the oak woodland west of the parking lot, visitors will find August bur oaks and hickories presiding over rich assemblages of shooting star, wild hyacinth, Joe pye weed, and others. Some of the oaks in the area are 250 to 300 years old. Bur oaks with thick, cork-like, insulating bark are toward the edges of the grove, where they withstood the flames of prairie fires and witnessed the passing of the Potawatomi and the buffalo.

An additional benefit derived from a prairie of this size is the sense of serenity one gets when gazing out over the rolling hills, broken by roads, buildings, or other man-made objects. One can imagine how Illinois looked 200 years ago.

For more information contact Crab Tree Nature Center at (847) 381-6592. For volunteer information contact Jill Flexman at (847) 931-9491.

**DIRECTIONS**

Take I-90/Northwest Tollway to Rte. 59. Head south on Rte. 59. Entrance lies on the west side about 1/2 mile past Shoe Factory Road at a sign reading “Shoe Factory Woods.”

—Jim Kostohryz
West Chicago Prairie—DuPage County

West Chicago Prairie spreads out over 300 acres of relatively flat land in western DuPage County near Fermilab. Less than seven feet separate the highest and lowest points, but the lack of dramatic topography belies a tremendous variety of plants, animals, and habitats. It’s a DuPage County Forest Preserve, but don’t come looking for developed recreation areas: the emphasis here is on enjoying nature and viewing natural processes in action. And it’s a great place for that.

West Chicago Prairie features nearly every type of natural landscape found in northern Illinois. There are prairies, of course, both wet and mesic varieties. Sedge meadows, a bur oak savanna with some gnarled trees nearly 200 years old, woodlands, ponds, and swampy glacial potholes round out the scene.

An extensive trail system provides great views of the preserve’s wide range of habitats. A short hike along the West Loop Trail, near the parking area, passes a high-quality mesic prairie whose plants flower in a succession of tremendous color from spring until the first frost. Nearly every two weeks, a new set of flowers are blooming. In July and August, Culver’s root and Prairie Dock dominate in late summer and fall.

Other trails pass a cottonwood swamp, which developed in the recent past when fires were suppressed. Thanks to prescribed burns, the area is slowly returning to its natural state as an open wetland. Not far away is a large bur oak. This whole area was a savanna before it was farmed; today, the old tree is surrounded by oak saplings forming the first stage of a new savanna.

The prairie grasses here grow too tall for most grassland birds. But other species flock to the wetlands, woods and savanna; nearly 170 bird species have been recorded at the site. Summer visitors may see American kestrel, teal and wood ducks, red-tailed and Cooper’s hawks, and flickers, among others. The Old Stockyards Trail, in the southeast corner of the site, leads to Heron Pond, a good place to see green and great blue herons. Several species of turtles (including Blanding’s), snakes, and frogs live at the preserve. The list of mammals ranges from white-tailed deer and coyote to meadow voles and thirteen-striped ground squirrel. Butterflies and skippers congregate near the wet potholes; volunteers are working to create a butterfly habitat near the savanna to attract even more.

The core of the site is 150 acres of high-quality land, bought by the Forest Preserve District and the city of West Chicago in 1978. Another 155 acres have been added as a buffer; some of this land was in good shape when it was acquired, while some had been degraded by farming and grazing. Active restoration is on-going in some parts; in others, as with the lone bur oak and its saplings, nature is slowly recolonizing the disturbed land.

The Illinois Prairie Path marks the preserve’s northern border and several of the preserve’s trails intersect the Prairie Path. The trails are unpaved. The preserve is open from one hour after sunrise to one hour after sunset. For more information, call the DuPage County Forest Preserve District at (630) 942-6075.

DIRECTIONS

The preserve is just west of Reed-Keppler Park in West Chicago. Take Rte. 59 to Roosevelt Rd.; head west 2.8 miles to Kress Rd. Turn right; after crossing the railroad overpass, turn right on Downs Dr. Half a mile later, turn left on Industrial Dr.; the entrance to the preserve is just ahead, on the right.

— Chris Larson
As an assemblage of large and high-quality Illinois grasslands, the Indian Boundary Prairies have no equal. They’re a place to see great hordes of butterflies, to hear prairie birds sing on the air, a place to see more than 200 species of rare plants. Gray fox, Franklin’s ground squirrel, Henslow’s sparrow, prairie lily—you name it, it’s there. The place to start is the Gensburg tract. The narrow footpath heading east from the gate guides you past some of the finest Grade A prairie anywhere. As the trail turns north and then back west along a drainage ditch marking the preserve’s northern edge, you pass through a variety of moderately disturbed habitats. They’re slowly being nursed back to life by preserve manager Ron Panzer and a spirited army of volunteer stewards. Come back year after year; it’s always different and always better.

In the 1930s, streets were laid out here. You’ll notice parallel ditches marking their edges. But the financial crash stopped the planned development, and the land lay in limbo for decades until “Mr. Prairie”—Dr. Robert Betz—enlisted The Nature Conservancy to assemble enough tax delinquent parcels to make a preserve. Conservationists have gradually assembled a preserve which now tops 200 acres and continues to grow.

Visitors will appreciate the richness of purple and white prairie clovers at the entrance gate. Amazingly, none were there when the restoration started. Betz and the volunteers brought the seed in from surviving populations nearby, as they did with the fringed gentians, smooth phlox, and others that now sway in the breeze by the thousands. “The easiest prairie to restore is one that’s pretty good to start with,” says Panzer. “And this one’s a fine example.”

Panzer himself restored the Franklin’s ground squirrel. Since the site is an Illinois Nature Preserve, he needed the blessing of the Nature Preserves Commission, which had not approved this sort of thing before, but found Panzer’s proposal sound. The stocky chocolate brown rodents are rarely seen, as they spend their time in tunnels under the grass and in their burrows, but their high clear whistle gives away their presence.

The smallest of the Indian Boundary Prairies, Dropseed Prairie, has the blackest soil (all these sites have some degree of sandiness, as old Glacial Lake Chicago sand bars are evident throughout). It has a number of species, like the rare edible valerian, that can’t be found in the larger sites.

Fall is a great time to see the rare gentians and gerardias at Paintbrush Prairie, an unusual neighborhood institution. Completely surrounded by subdivisions, it draws neighborhood children, some of whom seem to know the whereabouts of every snake and toad. Neighbor Cal Barber, who grew up playing in the grass and flowers, was the spark plug who championed the preservation of Paintbrush, Dropseed, and Sundrop. The kids there now may be the ones who make the citizen scientist discoveries here in the years ahead.

The most remote-feeling of the Indian Boundaries is Sundrop, south of Paintbrush on the east side of Kedzie. Like all these sites, it is another failed subdivision, a little more beat-up than the others, but a truly great place to watch the progress of restoration. Notice the humble but industrial-strength fence along the street—materials scrounged by volunteer stewards. This fence ended the parade of dumping vehicles that sneaked in from time to time for years. Volunteers lugged dozens of truckloads of trash out of the site, and now the birds, butterflies, blooms, and grasses are increasing annually.

The prairies are open during daylight hours. Please stay on existing footpaths.
Lockport Prairie is a lost wonder worth discovering. Nestled against the Des Plaines River to the east and the Chicago & Illinois Western Railroad to the west, this 254-acre strip offers a rare glimpse of an almost pristine dolomite prairie.

Here a shallow limestone soil restricts the prairie plants’ roots that normally grow six–to–eight feet deep. It is in this unique environment that rare dolomite prairie species can grow. Some areas drain quickly and dry out in summer, providing conditions for more rare plants of parched ground. Elsewhere, the water table wells up through the dolomite bedrock, forming marshes and fens.

The varied habitats—dry and mesic prairies, marshes, sedge meadows, and fens—provide environments in which more than 100 species of rare native plants and animals thrive.

The Des Plaines River Valley, in which Lockport Prairie is located, was the outlet for Glacial Lake Chicago during the Pleistocene Age. When the glaciers retreated some 12,000 years ago, large volumes of water flowed through the valley, eroding it to bare bedrock. As a result, the shallow soil contains elements leaching up from the limestone.

It is just this shallow soil that may have been Lockport Prairie’s saving grace. Because of its unsuitability for farming, this land was purchased for the construction of the Chicago Sanitary and Ship Canal. Then it sat for decades, an unknown remnant of pre-settlement Illinois. When a visitor stands in the center of the trail and scans eastward across the tops of a myriad of purple meadow rue, old witch grass, big blue stem, and wild raspberries and plum, “natural history” becomes visually literal. Lockport Prairie allows a rare glimpse of this region’s living past.

Discoveries don’t end at the trail. One may see state-endangered spotted turtles, the federally-threatened lakeside daisy, or the federally-endangered Hine’s emerald drakefly, which was first discovered here in 1983. That year, too, the site was dedicated as a state nature preserve. The federally-endangered leafy prairie clover, one of North America’s rarest plants and found in only three locations in the state of Illinois, dwells here as well. Prior to the discovery of the clover here, the last record of the plant in Illinois was more than 70 years ago.

On a sunny afternoon, one might see flocks of egrets wading and kingfishers darting at the marshes’ surface for a tasty snack. A favorite spot for many visitors, however, is the natural spring in the center of the trail to the left that offers up diamonds of icy water drops in the prairie heat.

Stop, sit down on the roughly-hewn flat bridge that spans the spring, and drink in a gem: the Lockport Prairie Nature Preserve. Lockport Prairie is owned by the Metropolitan Water Reclamation District and managed by the Forest Preserve District of Will County. For information, call (815) 726-3306. As a dedicated state nature preserve, there is plenty of nature but no picnic area or rest rooms.

**DIRECTIONS:**

Take the Stevenson Expressway (I-55) south to Rte. 53. Continue southward, just past the turnoff to Lockport, to Division St. and turn left. Drive down the steep slope of that glacial outlet to the flats; Lockport Prairie appears on both sides of the road from the RR tracks to the Des Plaines River.

— Sharon L. Comstock
Powderhorn Marsh and Prairie is a restorative find for the city-weary. Located in the Calumet region, straddling the city line between Chicago and Burnham, Powderhorn is a tallgrass complex that stands as testament to the indomitable spirit of nature.

Shallow marshes and wet prairies once filled the Chicago lakeplain behind the sand ridges and beaches along the edge of Lake Michigan. Potawatomi canoes once glided through the vast tallgrass prairie, savanna, wetland complex spanning roughly 22,500 acres across the Calumet region.

Then the industrial age arrived. Railroads, heavy industry, and neighborhoods replaced the original Calumet. Yet intermixed with it all remains one of the Midwest’s most critical stopovers for migrating birds and one of the greatest concentrations of threatened and endangered species in Illinois.

Who’d expect this site to host the Midwest’s largest breeding colony of state endangered black-crowned night herons? It’s noted in the recent feasibility study by the National Park Service, which is considering the creation of a natural heritage area that would include Powderhorn and Calumet as a link between Indiana Dunes to the east and the Illinois and Michigan Canal National Heritage Corridor to the west.

South of the parking lot is Powderhorn Lake, dug as a “borrow pit” for expressway fill, and now a popular fishing spot. North and east of the parking lot is a series of ancient beach ridges. Walk through the black oaks that run along the ridge tops and soon you’ll find yourself in one of the finest complexes of savanna, prairie, and marsh anywhere. Blazing stars, asters, goldenrods, sunflowers, and towering grasses of the prairie form bands between the marsh grasses, rushes, cattails and orchids that teem in the swales. (Unfortunately rampant purple loosestrife is in the swales too.) Look for herons, egrets, moorhens, red-tailed hawks, Eastern bluebirds, Eastern meadowlarks, and gray catbirds, as well as a variety of waterfowl, such as blue-winged teal, mallard, and wood duck. In migration, a short-eared owl may pop into view. Mammals? If you’re lucky, you may glimpse a coyote hunting the rare Franklin’s ground squirrel.

Perhaps the most striking find for many first-time visitors is the prickly pear cactus, which thrives on the sandy ridge tops. At this point you may feel as if you’ve left the city behind. Powderhorn is proof that there is yet wilderness on the edges of the city of Chicago itself!

**Directions:**
Powderhorn is located near the Illinois/Indiana border on the far south side of Chicago and in Burnham, off S. Brainard Ave. From the north, take I-94, exiting at E. 130th St. Head east to Brainard Avenue, and turn south (right). Powderhorn will be on the left side of the street. For more information, call (708)868-0606.

—Sharon L. Comstock

---

**Mchenry**

**Pleasant Valley Prairie:**
Aug 15, Sept 12 
Contact Steve Francis: (847) 669-9447.

**Sands Main Street Prairie:**
Aug 29 
Contact Jim Alwill: (847) 516-4306.

**Wingate Prairie:**
Contact Jim Wigman: (815) 337-3431.

**Cary Hillside Prairie:**
Sept 29 
Contact Mark Neiweem: (847) 639-8294.
Nothing that tastes good. They found only in the tallgrass require the shelter and food picky eaters and have found most of us at that age, they're food by themselves and, like their first time out foraging for having a hard time. This is ground squirrels at Gensburg.

**Picky Eaters**

The juvenile Franklin’s ground squirrels at Gensburg Markham Prairie (page 17) are having a hard time. This is their first time out foraging for food by themselves and, like most of us at that age, they're picky eaters and have found nothing that tastes good. They require the shelter and food found only in the tallgrass prairie, specifically along the prairie/woodland edges, amongst the shrubs. Listen as you walk through the tallgrass prairie for the loud, bird-like whistle of the Franklin’s, a sharp ringing note that may be heard for a considerable distance.

**Lucky 13**

The 13-lined ground squirrels doing well in our area. Historically, these rodents were found on the shortgrass prairie. As the landscape was altered through settlement and development, the 13-liners were able to move east. Now they are common residents of the Chicago Wilderness, living the good life on our golf courses and public parks and the grounds of Brookfield Zoo.

**Flutter About**

Do you remember those long summer drives the family took to visit your mother’s relatives? Remember all the butterflies found plastered on the car grille? Chances are good that a regal fritillary was one of these unfortunate victims. Today, this orange butterfly is uncommon in this region as its habitat has been greatly diminished. The Braidwood Dunes and Savanna in Will County does have the appropriate habitat; specifically, it has bird’s foot violets, the favorite food of the fritillary caterpillar.

Fortunately, the butterfly news is not all gloom and doom. There are some species—such as the red admiral—whose populations are holding their own, due to their ability to adapt to the urban landscape. Another example is the strikingly colored black swallowtail, whose caterpillar has found the Queen Anne’s lace to be quite tasty.

Other butterfly success stories stem from the efforts of the human species. Restoration volunteers removing brush in wetland areas such as Nelson Lake Marsh in Kane County and Bluff Spring Fen, east of Elgin in Cook County, are improving habitat for the eyed-brown butterfly. A marvelous place to see a multitude of butterflies is the Parson’s Grove of the Danada Forest Preserve in Wheaton, IL.

**Crayfish Beware**

The thousands of young crayfish living in the creeks of McHenry County had better watch out. The rare Blanding’s turtles will be hatching soon and are going to be mighty hungry. Showing excellent culinary taste, these turtles would like nothing better than to chomp on some crawdads. Always health conscious, Blanding’s turtles receive calcium from eating the shells of freshwater crustaceans.

---

**Hickory Nuts**

For many centuries, the nuts of the hickory tree were an autumn staple for the earliest residents of the Chicago Wilderness. It’s not surprising. Hickory nuts are high in protein, but perhaps more important, they taste much better than other local nuts, such as acorns and black walnuts. The sweet, delicious meat of the nut can be ground into flour and baked into dense muffins. Trivia enthusiasts will be glad to know that, when burned, hickory wood produces more British Thermal Units (BTU’s) than anthracite coal.

**Hatching Snappers**

The snapping turtle eggs that were laid during the last issue of Chicago WILDERNESS are hatching during this issue. The baby snappers are now searching for a water home, using their primitive little reptilian brain to tell them where to go and what to do. Snappers, by far the largest of this region’s turtles (some specimens reach 50 lbs.), are some common throughout our waterways. They are often unseen by the public because they spend much of their time crawling slowly along the bottom in search of carrion and crayfish.

Come explore the “Natural Wonders” of the region on a free, guided nature walk in any of a dozen spectacular natural areas!

**August**

- **Teach Your Children**
  - The sandhill crane pair that have taken residence in Pratt’s Wayne Woods in DuPage County are busy teaching their youngster how to be a good adult crane. This week’s lesson is how to catch the young bullfrogs that are swimming in the water. The crane family does not want to be embarrassed this autumn, when they will join their crane friends from Lake and McHenry Counties and travel to their winter home along the coast of Texas.

- **Picky Eaters**
  - The juvenile Franklin’s ground squirrels at Gensburg Markham Prairie (page 17) are having a hard time. This is their first time out foraging for food by themselves and, like most of us at that age, they’re picky eaters and have found nothing that tastes good. They require the shelter and food found only in the tallgrass prairie, specifically along the prairie/woodland edges, amongst the shrubs. Listen as you walk through the tallgrass prairie for the loud, bird-like whistle of the Franklin’s, a sharp ringing note that may be heard for a considerable distance.

- **Lucky 13**
  - The 13-lined ground squirrels are doing well in our area. Historically, these rodents were found on the shortgrass prairie. As the landscape was altered through settlement and development, the 13-liners were able to move east. Now they are common residents of the Chicago Wilderness, living the good life on our golf courses and public parks and the grounds of Brookfield Zoo.

- **Flutter About**
  - Do you remember those long summer drives the family took to visit your mother’s relatives? Remember all the butterflies found plastered on the car grille? Chances are good that a regal fritillary was one of these unfortunate victims. Today, this orange butterfly is uncommon in this region as its habitat has been greatly diminished. The Braidwood Dunes and Savanna in Will County does have the appropriate habitat; specifically, it has bird’s foot violets, the favorite food of the fritillary caterpillar.

  Fortunately, the butterfly news is not all gloom and doom. There are some species—such as the red admiral—whose populations are holding their own, due to their ability to adapt to the urban landscape. Another example is the strikingly colored black swallowtail, whose caterpillar has found the Queen Anne’s lace to be quite tasty.

  Other butterfly success stories stem from the efforts of the human species. Restoration volunteers removing brush in wetland areas such as Nelson Lake Marsh in Kane County and Bluff Spring Fen, east of Elgin in Cook County, are improving habitat for the eyed-brown butterfly. A marvelous place to see a multitude of butterflies is the Parson’s Grove of the Danada Forest Preserve in Wheaton, IL.

**September**

- **Hickory Nuts**
  - For many centuries, the nuts of the hickory tree were an autumn staple for the earliest residents of the Chicago Wilderness. It’s not surprising. Hickory nuts are high in protein, but perhaps more important, they taste much better than other local nuts, such as acorns and black walnuts. The sweet, delicious meat of the nut can be ground into flour and baked into dense muffins. Trivia enthusiasts will be glad to know that, when burned, hickory wood produces more British Thermal Units (BTU’s) than anthracite coal.

- **Hatching Snappers**
  - The snapping turtle eggs that were laid during the last issue of Chicago WILDERNESS are hatching during this issue. The baby snappers are now searching for a water home, using their primitive little reptilian brain to tell them where to go and what to do. Snappers, by far the largest of this region’s turtles (some specimens reach 50 lbs.), are some common throughout our waterways. They are often unseen by the public because they spend much of their time crawling slowly along the bottom in search of carrion and crayfish.

**NATURAL WONDERS**

Come explore the “Natural Wonders” of the region on a free, guided nature walk in any of a dozen spectacular natural areas!

- **August 22, 8pm-9:30pm** Moonlight Serenade, Glacial Park (MCHENRY)

- **August 29, 9am-11am** Biodiversity & Wildflowers, Chain O’ Lakes State Park, Spring Grove (LAKE)

- **August 29, 10am-12pm** Prairie Views, Spring Bluff Forest Preserve (LAKE)

- **September 29, 8am-3pm** All Day Hike, Waterfall Glen (DuPAGE)

- **September 13, 1:30pm-3:30pm** A Walk in the Bog, Volo Bog (LAKE)

- **September 19, 10am-12pm** Dune Builders, Illinois State Beach Park (LAKE)

- **September 19, 1pm-3pm** Savanna Stroll, Somme Prairie Grove (COOK)

- **September 20, 8am-3pm** All Day Hike, Waterfall Glen (DuPAGE)

- **October 10, 9am-12pm** Cowles Bog: Fall Nature Hike (Porter, IN)

- **October 10, 10am-12pm** Shake a Tail Feather, Nelson Lake Marsh (KANE)

To register, call Chicagoland Environmental Network at (708) 485-0263 x396.
Native Americans and pioneers found what they needed in the prairie. Match each prairie plant with a product used today.

Concept and information thanks to Janice Kasper and Mary Ochsenschlager of the St. Charles Park District and Danielle Ebersole of the Kane County Forest Preserve District.
Ray Schulenberg: Prairie Doc

In 1962, Ray Schulenberg accepted an assignment from the director of the Morton Arboretum in Lisle, Illinois, to propagate a planting of native plants within a tract of newly acquired property there. This was arguably the second major ecosystem restoration project in world history—the first being the one at the University of Wisconsin Arboretum in Madison.

A homestead by the 1820s, the site’s intense farming led to almost complete soil erosion in the nearly 100 acres that now comprise Morton Arboretum’s Schulenberg Prairie. After 25 years of restoration, site manager Craig Johnson says Schulenberg Prairie today is a largely self-sustaining prairie and savanna consisting of approximately 350 native plant species—including endangered or threatened species—such as white lady slipper orchids, sand milkweed, and prairie bush clover.

“I usually try to discipline myself to refer to the Morton Project as a ‘planting of prairie plants,’” says Schulenberg. “There are still many prairie plant species lacking from it. It doesn’t include all the soil microorganisms, all the little insects, mites, fungi, bacteria, and so on, that the original prairie contained, although it has been fairly successful. I’m gratified every time I go back and see how well it has maintained itself and improved itself over the passing of time.”

The intense labor that Schulenberg and his hand-trained volunteers invested in the project is legendary, and their tactics served as a model for future projects in Illinois. For the first few years, folks crawled around the property with linoleum knives and pocket whetstones, cutting weeds individually from among the native prairie seedlings. Many of these people became the beginnings of the “the restoration movement” which has spread worldwide from its apparently humble beginnings.

“By the fall of ’64, the end of the second growing season, the warm season grasses in the planting had provided enough fuel so that the prairie was ready to be burned,” Schulenberg says. They have burned two-thirds of it every year since.

Ray Schulenberg had been concerned with rapidly growing rates of extinctions since he was a child. While traveling around the continent in the ’40s, he hung around some Native American communities which led to an interest in a loss of the natural areas along with the loss of Native cultures. He earned his BS degree in horticulture, with an emphasis in landscape architecture, at Iowa State University in 1955 (he was 34 years old), and dreamed of starting his own nursery and raising native plants.

However, he landed his initial job with the Morton Arboretum through a professor of his and, once there, he met naturalist May Thielgaard Watts and became interested in prairie ecosystems.

Schulenberg contributed mightily to the early editions of the landmark...
Red bat: Camouflaged bug buster

Walk through a grove of trees in a forest preserve this summer and the region’s most colorful bat may be clinging upside down to a branch though you may never see it. The eastern red bat (Lasiurus borealis) wears a conspicuous russet fur that Henry David Thoreau likened to the hue of a ripe cattail head, but it can camouflage itself remarkably well.

The red bat lives alone—not in colonies—hanging by day among leaves, against tree trunks, or under loose bark flakes, where it might be mistaken for a dead leaf. Here, in summer, the female red bat remains suspended from a branch all day long as her two-to-five young cling to her, feasting on her milk. This species actually migrates south like birds, instead of overwintering in Midwestern caverns as do other of the region’s bats.

Red bats mate while flying, in late summer or early fall. The female stores the sperm until she ovulates in spring. By the time she migrates back north in spring, she is ready to give birth. At night, she leaves her nursing young to feed on moths and other insects. A single red bat may consume 3,000 insects in one night.

Seeing a red bat, or any of the eight bats that migrate through or bear young in the region, is difficult. Hearing their high-pitched sounds is impossible. But scientists now have a new device enabling them to “hear” bats in the field. A bat detector, which can discern different bat species’ calls, is helping the region’s researchers gain valuable information on how urbanization affects bats and which habitats attract them.

Stan Gehrt, a wildlife research biologist for the Max McGraw Wildlife Foundation in East Dundee, has worked for three years with the Cook County Forest Preserve District and The Nature Conservancy to determine the presence of bat species at 15 forest preserves including Black Partridge Woods, Sand Ridge Nature Center, and Poplar Creek. Researchers also began working at five McHenry County sites this summer.

Visiting the preserves at dusk from early June through early fall, they use the bat detector to collect and amplify sounds that are then recorded and brought back to the lab. A computer digitizes the sound patterns, which identify the bat species.

The red bat and the big brown bat were the two most common bats detected at the study sites. “We detected red bat activity at 90 percent of the preserves, and most all summer long,” says Gehrt. “These preserves may be very important habitats for the red bat, which is probably using the trees and foliage for roosting.”

—Sheryl De Vore

Barry Dredze

guide to local wild flora, *Plants of the Chicago Region* (Floyd Swink and Gerold Wilhelm. 1994. 4th ed. Indianapolis: Indiana Academy of Science). He scoured the countryside for the plant data that makes up the heart of this essential local botany tool. Renowned Morton Arboretum botanist, Floyd Swink, original author of the *Flora*, points out that Schulenberg also designed the system of maps that show the distribution of each of the Chicago region’s 2,530 plant species. Schulenberg’s demarcation of a 75-mile radius spreading outward from the center of the Chicagoland grid at State Street and Madison Avenue, spanning 22 counties in four states, has become essentially what many now recognize as Chicago Wilderness. Schulenberg presently makes his home on a 10-acre plot in his own corner of that Wilderness, along the DuPage River in Wheatland Township near Plainfield, Illinois. Though he is now 77 years old and retired, his own “yardwork” includes caring for a reconstructed prairie of roughly 70 species with his friend David Kropp. Schulenberg’s home prairie is both a passion and a mission, where he teaches plant identification by appointment, and where the only fee is the desire to learn. “I am concerned about people who think they can simply plant a few prairie plants on their school ground, on their business property, in their backyard, and succeed with it as prairie,” he says. “And they have no idea what is involved in establishing it to where it is a self-maintaining planting of prairie plants.

At a time when proponents of prairies and native plant species butt heads with surging development, Schulenberg strains for hope that these natural communities will not only be appreciated, but preserved and restored. “These little efforts to set aside land as preserves are about the only positive things I can see,” he says. “And those preserves are so small in terms of the total acreage that is being so utterly devastated.” Schulenberg’s words sound grim, but his actions speak louder. His vision and dedication are restoring the spirit of the prairie state.

—Barry Dredze
Hoffman Dam River Rats:  
Reversing the river of no return

Late in March of 1996, Chicago Police Officer Jason Gorski stood knee deep in the Des Plaines River, fishing pole poised just below the Hoffman Dam where the river flows through the western suburb of Riverside. He was dubious about this dirty river, but he figured wading through the frigid waters of early spring would give his bum ankle the cold-pack therapy he needed for ligaments torn and cartilage ripped while on duty.

But when the first fish caught hold of his line, nature caught hold of him. Gorski reeled in a walleye pike, a species prized by sport fishermen, from a river so badly degraded that it should only have supported rough fish like carp. Prior to this visit, he had seen everything from raw sewage to car parts float past as he walked by this stretch of river. The walleye, he decided, was just a passing fluke. Before long, he reeled in three more. After decades of mistreatment, this river was gasping back to life.

“Something inside me said I had to do something to protect it,” Gorski says now. “So I adopted it. It became personal.”

So personal that Gorski recruited 1,000 people to sign a petition to save the river, prompting the Illinois Department of Natural Resources (IDNR) to declare the Des Plaines River a special management zone, imposing restrictions designed to preserve populations of highly desirable, native sport fish like small- and large-mouth bass.

To help enforce those regulations, Gorski founded the Hoffman Dam River Rats, a club that now coordinates 200 amateur volunteers who work with DNR biologists to restore and enhance the fisheries and spawning grounds of the river. To ensure that their work is not ruined by more pollution, the River Rats also keep an eye on the 20 businesses that are still allowed to dump waste into the river. Eventually they hope to get any further dumping of contaminants.

“Due to the pollution, fish still display disfigurements like sores, cancers, and fin deformations,” Gorski says. “And the spawning habitat had been destroyed for years and years.”

IDNR biologists Bob Rung and Steve Pescitelli have taught the River Rats to take a multi-angle approach to their project—from clean-up, to habitat restoration, to pollution prevention.

Every April and October, the River Rats sponsor a clean-up along the banks and down the middle of the Des Plaines, between Riverside Lawn and Riverside. So far, they have hauled out fifteen 55-gallon drums, numerous bicycles, folding chairs, rods and reels, firehoses, housing insulation, chain link fencing, tires, and a few bank safes. A 300-gallon heating oil tank remains submerged because they haven’t figured out yet how to lift it.

Last fall they began an effort to stabilize the riverbanks by planting 1,600 native plants known as lizard’s tails. This spring they poked more holes in mud along the banks and plugged in 1,000 blue flag iris. Next year they plan to plant 20,000 more aquatics, all raised from native stock. The restoration species list will expand to include waterwillow, bur reed, sweet flag, and buttonbush. In the surrounding forest preserves, the River Rats clear away impenetrable non-native undergrowth so that light can reach the plantings and so one of the region’s other species—those of the human kind—are more likely to visit. The wide field of view also allows them to patrol for poachers.

With Rung and Pescitelli as mentors, the River Rats do most of the biological grunt work of data collection—catching, counting, monitoring, and measuring fish, aquatic insects, and other macroinvertebrates. Because each species has its own specific tolerance rating for pollution, they use the data to assess changes in the healthiness of the river.

And, Rung says, the grades are improving. In 1983, the river’s Index of Biotic Integrity (IBI) averaged 27, resulting in a ‘D’ rating. Last year the IBI increased to 36, giving the river a ‘C’.

The fish count is even more encouraging. In 1983, 1,008 fish, 32 species in all were collected. In 1997, volunteers collected 3,374 fish, 40 species in all, with an increase in native species, and a decrease in rough species. In that same time period, numbers of northern pike went from three to 24; walleye from zero to six; and large-mouth bass, a native species more tolerant of pollution, from 49 to 91. Small-mouth bass, a species very intolerant to siltation and habitat degradation, increased from one to 54. The river is breathing once again.

Gorski says, “The fish are struggling. We need to respect them and give them a chance to survive.” This is one police officer who extends his beat to the natural world, which he’ll serve and protect.

River Rats meetings are open to the public and held at 6:30 p.m. the second Tuesday of every month. Drop by 27 Riverside Road in Riverside Township, or call Jason Gorski or Howard Brundage at (773) 585-4004.

― Eugene Bender
Prairie walkingstick: Native grassland dweller

Childhood forays into the woods or backyards in summer often reveal surprises—such as a twig that suddenly starts moving and turns out to be an interesting insect called the walkingstick.

But not all walkingsticks are the same—and there’s one that you’ll only find in the region’s native prairies. It’s called the prairie walkingstick (Diapheromera blatchleyi).

In 1907, W.S. Blatchley, an early 20th century entomologist, wrote that the prairie walkingstick “prefers rank prairie vegetation and is found throughout Illinois,” in the book, Orthoptera of Northeastern America. At that time, Blatchley was one of a handful of scientists who understood about the true native prairie, says Ron Panzer, a biologist at Northeastern Illinois University who is studying walkingsticks and other insects in the region. Walkingsticks are tied to the native mesic and wet prairies of the region. Panzer said he’s found them living in at least three places in the Chicago Wilderness region: Illinois Beach State Park in Lake County, IL, and the Indian Boundary Prairies and the Chicago Ridge Prairie in Cook County, IL.

As with all insects, a walkingstick possesses a head, thorax, abdomen, and six legs. A walkingstick, however, has no wings. Thus, to protect itself from predators such as birds and mice, it uses camouflage. The walkingstick’s long, thin, bumpy body looks like a tree twig or a branch from a prairie forb. As the prairie grasses turn from green to brown when seasons pass from spring to autumn, the prairie walkingstick’s body color changes, too.

In spring, a nymph hatches from overwintering eggs that resemble tiny black seeds and have hard protective shells. The nymph looks like a miniature adult and molts or sheds its skin several times before reaching about four inches in length. The adults then mate and the female lays eggs that will overwinter, before she and the other adults die.

Little is known about the prairie walkingstick, says Panzer. “We don’t even know how many eggs the female lays, though it’s probably at least 100,” he says. “We do know that the eggs are laid above ground,” where fire would likely destroy them. That fact presents a puzzle regarding some recent information he has gained by studying these creatures at Illinois Beach State Park.

Prairie walkingsticks are “fire positive,” says Panzer. That means that fire used to restore and manage prairies has probably increased the prairie walkingstick population. Panzer says he thinks the prairie walkingstick is doing well in the region because entire areas are not burned all at once. That way overwintering eggs in an area that has not been burned develop into young walkingsticks that seem to have a penchant for recently burned vegetation. They just migrate over to the rich, nutritious emerging grasses.

Panzer is also researching a close relative, the western walkingstick (Diapheromera velei), which feeds specifically on a prairie legume called scurfy pea (Psoralia tenuflora). The plant, which grows only in small numbers at a few Chicago Wilderness sites, still thrives on hill prairies in west-central Illinois. The western and prairie walkingsticks look extremely similar, yet each has its own biological niche. As Panzer's studies continue, more may be learned about the walkingsticks that still find a place to live in our native prairies.

— Sheryl De Vore
1 RARE FERN APPEARS
Last summer while walking his dog in an abandoned gravel pit in the Blackhawk Forest Preserve in Kane County, Jon Duerr spied a green shape in the shade of some tar- tarian honeysuckle. As Director of Field Services for the Kane County Forest Preserve District, Duerr’s plant identification skills are darn good, but this one stumped him. He sent a sample for identification to fern expert Dr. Warren Wagner at the University of Michigan. The finding? Botrychium campestre, from a family of plants known as grape ferns. Though native to the western prairie, this species has never been found in Illinois. “I don’t know if the spores blew across that distance on the wind or were brought here on train cars from the west, but the fern seems to like the gravelly soil of that pit,” Duerr said. “It’s just another exciting example of the crossroads of habitat that typifies Chicago Wilderness.” —Mark Sheehy

2 VOYAGEUR CANOEISTS
Musket shots—fired early in the morning of June 12th, in Swan Lake Park, Wisconsin—launched a 75-mile Voyageur Canoe Expedition down the Des Plaines River ending near Romeoville, Illinois. These canoes, 26 feet long and weighing 300 pounds, are replicas of those used by the original French Canadian voyageurs, the “truckers” of the fur trade for hundreds of years. The expedition made 21 stops along the way to pick up and drop off elected officials, agency staff, print media reporters, and others (including three county board commissioners from Lake, Cook, and DuPage Counties). Paul Stack, Mayor of Riverside, announced that “Riverside has always looked at the river as a liability. Now, we are going to develop the river as a recreational asset.” Gary Mechanic, coordinator of the expedition, hoped the event would foster alliance-building: “Paddlers, bikers, runners, bird watchers, fishers—all want the same thing, a continuous greenway and water trail stretching the length of the Des Plaines River. We all meet at the water’s edge.” The voyageurs helped kick off the Des Plaines River Watershed Conference and a proposed Friends of the Des Plaines River. If you live, work, or play in the Des Plaines River watershed and want to get involved, contact Gary Mechanic (773) 267-0146 or LStroker@aol.com. —Becky Polivka

3 BANDED KILLIFISH
The banded killifish, known from only eight other locations in Illinois, was discov- ered last February in a remote Lake County bog. Employees from Integrated Lakes Management had been hired to remove non- native shrubs that were choking out the bog at Grant Woods Forest Preserve near Fox Lake. Crew leader Pete Winkler had been noticing thousands of small fish under the clear ice when one somehow flopped out through a hole onto the ice in front of him. Recognizing that the fish was unusual, Winkler took it back to his Gurnee office, where the firm’s director, Jim Bland, identified it. “We were ecstatic,” says Bland. “Its presence raises interesting questions about the bog’s connection to nearby lakes and streams. This might be a relict population, completely isolated from other killifish.” Once common throughout northern Illinois, the four-inch-long darter is considered threatened by the Illinois Endangered Species Protection Board. Reasons for the species’ decline are not well understood, but ecologists point to poor water quality and possibly unnatural diseases and competition (unintentionally introduced by anglers who may dump out extra live baitfish at the end of the day).

4 OSPREYS?
KEEP YOUR DISTANCE!
The Birds of Illinois asserts that ospreys have not nested in Cook County in the 20th century. Not, that is, until now. Like its better known cousin, the bald eagle, the osprey has made a remarkable comeback in North America since DDT was banned, and this summer a pair of these fish-eating birds hatched three young in a stick nest beside a Cook County Forest Preserve slough. Avid bird monitor Craig Thayer first saw the downy nestlings on June 21. Although ospreys generally are tolerant of humans, they are—like other birds—still susceptible to nest failure if bothered too greatly during incubation and brooding. According to the Canadian Wildlife Service, “Predation of young by crows, owls, gulls and raccoons does not usually happen unless parents have been disturbed by humans.” Thayer hopes that visitors to the site respect these magnificent birds and will not be tempted to bushwhack their way too close to the nest site. The birds are easily viewed from a distance with a spotting scope. Since ospreys show great site fidelity to an eyrie, they may return to breed in their Palos region pre- serve for many years.

5 THE SECOND LIFE
OF PECK FARM
Citizens rescued Peck Farm from bulldozers in 1991, when they voted to approve funds needed by the Geneva Park District to purchase the site. Peck Farm was once nationally recognized for its flocks of pure-bred Merino sheep. Later years saw evolution of the farm into row crops and a cattle feed lot. The third generation George Peck family, tired of seeing nearby farmland con- verted to housing developments, decided this site could be a memorial to founder Eli Peck. Landscape architects and restoration ecologists have been hard at work; native seed and a prescribed burning program are rapidly reclaiming nature lost during years of agricul- tural cultivation. Some old-fashioned farm gardens will be retained as well. The property, located near Kaneville Rd. and Fabyan Parkway, will feature a 20-acre shallow pot-hole lake, 88 acres of planted mesic and wet prairies, seven acres devoted to educational buildings and open spaces, and 18 acres for recreational fields. The 1860s farmhouse will contain two public rooms devoted to history and nature discovery; the corn crib will be converted to an orientation theater providing an overlook to the prairie and wetlands, and walking trails will give visitors a closer glimpse of bluebirds and waterfowl. Peck Farm, a showpiece celebrating a bygone era and the restoration of native landscapes, opens in August. —Cathi De Grenier
6 NATIONAL PARK QUIZ

Trick question: What national park is dominated by oaks, dunes, and wetlands and has tens of thousands of visitors annually? Trick hints: This park’s wide range of flora and fauna surprise many people, especially because proximity to a major urban center poses threats, including habitat fragmentation, air and water pollution, and disrupted ground and surface water.

Surprise answer! There are two: Indiana Dunes National Lakeshore and Poland’s Kampinos Park Narodowy (Kampinos National Park). As of April 15, 1998, these national parks on the fringes of Chicago and Warsaw have been designated sister parks. On that day in Warsaw, officials signed memoranda announcing that the National Park Service and the Board of Polish National Parks will exchange personnel, data, technology, training, and experience. The parks are hoping to embark on cooperative research projects on hydrology and European bison (saved from extinction and living in the wild only in Poland’s parks).

7 FIRE SPARKS PRAIRIE

It was only last October that a series of wildfires burned alongside a stretch of the Chicago and Northwestern railroad in Barrington, but already a variety of prairie and savanna plants have taken advantage of them. Since 1850, the easement of the railway has sheltered native plants from farming and grazing. This right-of-way continued to be burnt regularly, by design or accident, as late as the 1960s, maintaining now-rare prairie and even rarer open savanna ecosystems alongside the tracks. The 1997 fire, sparked by a faulty train wheel, ignited dry patches of prairie remnant; it cleared brush and encouraged the growth of several prairie and savanna species, including such rarities as veyny pea and Leiberg’s panic grass. Tom Vanderpoel, a member of Barrington’s Citizens for Conservation, calls the increase in plant diversity “tremendous,” and considers the site “one of our best examples” of the prairie-savanna continuum. Unfortunately, the unmanged site has severe problems with aggressive species and will gradually become degraded unless an agreement with the railroad concerning management can be reached. In the meantime, Vanderpoel collects seed from the site and continues to study it. — Bridget Illian

8 HEAD START FOR TURTLES

In early July, 25 immature Blanding’s turtles waddled off to new homes in the DuPage County Forest Preserves. After 10 months of captive rearing at the County’s Willowbrook Wildlife Center, these youths are the second group of captive born and reared turtles to be released under the District’s wildlife restoration program. District ecologists have been attempting to restore populations of these rare turtles ever since they were located in DuPage County during an amphibian and reptile survey in 1994. Once prevalent in DuPage (and much of the region), these domed-shell, yellow-throated creatures have lost much of their original wetland habitat. Moreover, skunks and raccoons prey heavily upon turtle eggs in today’s small preserves and adult turtles are often run over on the highways while searching for mates.

“We feel that we can offset these problems by giving young turtles a head start that avoids some predation, and through proper habitat management,” said District Animal Ecologist Dan Ludwig. Rearing young turtles in captivity also accelerates their growth so that they begin reproducing sooner than the usual 13 to 18 years. As part of the program, the District’s Department of Grounds and Resources is writing a Blanding’s turtle recovery plan with the assistance of geneticists and nutritionists from Brookfield Zoo and Blanding’s turtle experts from the United States and Canada. “This is the first time the Zoo has applied its population viability analysis model, used for endangered species conservation planning around the world, to a local threatened population,” said Tim Sullivan, Chair of Conservation Biology at Brookfield Zoo. “We hope this can be a model for how to develop species management plans for other priority species in Chicago Wilderness.” — Mark Sheehy

9 FAIRWAY FROGS

The gray treefrog never expected to be fused over by so many agencies. But a novel collaborative effort (by the Forest Preserve District of Will County, the Will County Land Use Department, the USDA Natural Resources Conservation Services, and Providence Development Corporation) has protected a vernal pool where this frog breeds. The Fairways Wetlands Restoration Project, named for the Fairways Townhomes in Crete, lies adjacent to Goodnow Forest Preserve. The vernal pool, a seasonally wet depression, is just under an acre in size and 1.5 feet at its deepest, yet provides valuable breeding habitat for several amphibian species such as the blue-spotted salamander, the spring peeper, and the eastern gray treefrog. Most vernal pools like this one are too small to be protected under the Clean Water Protection Act and, as a result, developers frequently fill them in or convert them to larger ponds (where fish may eat the vernal pond amphibians). This site was destined for the same fate until interviews with nearby residents showed that many moved there to be close to the forest preserve and have a strong interest in wildlife and natural settings. These interviews, conducted by the county Land Use Department, convinced the developers to approve the restoration proposal. “We’re hoping the project will be viewed as a model to developers, planners, and researchers,” says Bruce Hodgdon of the Forest Preserve District.

10 WILD TURKEY (the bird)

Three Thorn Creek Audubon birders had an exciting morning on June 15 while surveying breeding birds for the Bird Conservation Network Survey ’98. While walking a trail towards the Boy Scout Camp in Cook County’s Zanders Woods, they saw a large shape in a tree. At first they thought it was a hawk or a turkey vulture, until birder Daniela Herman spotted the identifying blue on the head and light-colored legs of a wild turkey before it flew off into the woods. “We were so excited to see such an unusual sight,” said Herman. It is not unusual to find wild turkeys in savannas, and this is a restored oak savanna, but wild turkeys have not been recorded in Cook County since 1878, and were considered extirpated from the state by 1900, according to Chicago Area Birds. In recent decades, wild turkeys—distinguished from their domestic cousins by their dark rather than white tail tips—have been released in various parts of rural Illinois to re-establish the turkey as a game bird. “This is indeed a significant sighting,” said the Illinois Ornithological Society’s Eric Walters. “There have been only a handful of sightings of these birds in the wild in northeastern Illinois since they disappeared, and none that I know of in Cook County.”

Stories compiled by Elizabeth Sanders with help this issue from Dilip Das, Dale Endquist, Marianne Hahn, Tim Houston, Wes Serafin, and Fred Szarka.
IS HERBICIDE GOOD?

There is an herbicide called Poast (rhymes with toast) which has a bad reputation with two groups of people. Some land managers who use herbicides regularly think Poast is too weak to bother with. Then there are other folks who believe that all herbicides are the work of the Devil, and this one’s no better.

Bob and Betty Coffin of Long Grove are the proud owners of a wetland. Years ago when they learned that the area behind their house was habitat for the endangered prairie white-fringed orchid, they legally and permanently dedicated their 10 acres as an Illinois Nature Preserve. Now it’s protected for all time, they thought.

But one plant that had sneaked into the Coffins’ marsh was reed canary grass. This invasive and aggressive species (there’s debate about how native it is) often becomes so dense as to eliminate most other plants. Gradually, the Coffins noticed that larger and larger portions of the preserve were losing the rich diversity of native species that were theoretically preserved there.

Steve Byers of the Illinois Nature Preserves Commission recommended control of the reed canary grass. But how?

Land stewards have long used herbicides, considering them necessary evils when all else fails. But here the dreaded grass was spreading among all the rare sedge meadow species the Coffins sought to conserve.

Enter Poast. This is a weak and selective herbicide. It has no observable effect on wildflowers, or even on the grasses’ close relatives like rushes and sedges. It’s used to kill grass, but there was little information about its effectiveness in complex native ecosystems.

“This entire population of endangered orchids and the diverse ecosystem that supported it were definitely in danger of being completely lost,” says June Keibler, head of the Orchard Recovery Project sponsored by the U.S. Fish & Wildlife Service and The Nature Conservancy (see CW news, Fall 1997). “So all things considered, it seemed worth a try.”

Keibler and the Coffins chose a strip 30’ wide by 100’ long, in the heart of the worst reed canary infestation. They sprayed it with Poast, saw little results, waited a few weeks, and sprayed the whole patch again. This was in accord with the EPA-approved directions for the herbicide. Because of its comparative weakness, Poast is effective only with repeated applications. The following year they sprayed again—it seemed to be slowly working—and then a fourth time.

This year that treated strip is largely empty of the killer grass. But more important is what has returned. “Tussock sedges everywhere,” says Keibler. “Turk’s cap lilies, swamp milkweed, and, although we can hardly believe it ourselves, five handsome healthy orchids.”

This herbicide will probably continue to have a bad reputation with some people. “But,” says Steve Byers, “if you’re facing reed canary grass and you’re trying to rescue an ancient natural community, you might want to check it out.”

BIG BUGS INVADE CHICAGO

These invaders have no intention of taking over—in fact, they’ll be gone by October 25. They are dinosaur-sized insect sculptures made from trees, dried branches, roots, vines, and bark by New York artist David Rogers. They’ve descended, temporarily, at the Chicago Botanic Garden. The creatures include three 700-lb. ants, three ladybugs, two dragonflies, a butterfly, assassin bug, praying mantis, grasshopper, beetle, earwig, and spider (complete with 15-foot web). A variety of educational activities, exhibits, and programs accompany the bugs. The “Bigness of Bugs” features big facts about these small creatures as well as close-up insect portraits by Chicago photographer James Rowan. Cultural treasures from the Field Museum of Natural History show how insects have inspired people. Also offered are storytelling and informal discussions for children and adult classes about how insects can benefit lawn and garden.

Time: 8:00 a.m.–sunset daily
Place: Chicago Botanic Garden 1000 Lake Cook Road Glencoe
Admission: Free; parking is $5/weekdays and $6/weekends
Information: (847) 835-5440

CRANE AND RABB HONORED

Dr. Peter Crane (CW Winter ’98), paleobotanist and Vice President for Academic Affairs at the Field Museum, has been named a Fellow of The Royal Society in his native England. Election to The Royal Society is considered one of the high honors in the scientific world. (Founded in 1660, it has included such luminaries as Isaac Newton.) Crane’s research concerns the origin and early evolution of angiosperms—flowering plants—and their massive ecological impact on plant and animal life throughout the world.

Dr. George Rabb, director of The Brookfield Zoo since 1976, has also served as Chair of the World Conservation Union’s (IUCN) Species Survival Commission, an organization that is devoted to, well, saving the earth’s species. In recognition of his contributions to world conservation, Rabb received the Silver Medal from the Royal Zoological Society of London and the service award in 1998 from the Society for Conservation Biology.

TRAIL OF HISTORY

This highly-popular annual living history event portrays the interrelationship between nature, people, and cultural development. Interpreters from across the country demonstrate life as it was from 1670 and 1850 in the former Northwest territory, which encompassed present-day Illinois, Wisconsin, Indiana, Michigan, Ohio, and portions of Minnesota.

Date: Saturday, October 17 and Sunday, October 18
Time: 9 a.m. to 4 p.m.
Location: Glacial Park, McHenry County Conservation District’s largest and most diverse natural area. 6512 Harts Road in Ringwood, IL.
Information: (815) 678-4431

NEIGHBORS SUPPORT BARTLETT WOODS

Judy Piszczek and Mary Ellen Knuth share their neighborhood with migratory birds, frogs, foxes, muskrats, and snakes. Last December, they also noticed workmen taking soil samples. They phoned Bartlett village hall and found out that the “Wendt farm” —88.4 acres including 36 acres of wetlands—was under contract to a developer with plans to build 74 single-family luxury homes.

“I’ve seen a great egret landing here,” said Piszczek. “He probably had a nest in the wetlands. I see that and think, let’s not lose all this.” So she and Knuth got on the phone. What they learned prompted them to alert their neighbors.

The Wendt property wetlands are designated “critical” by the DuPage County Department of Environmental Concern and, as such, any development would be monitored closely. To accommodate the additional runoff that occurs from stripping topsoil for homes, the developer would have...
to establish a conservancy area that includes enlarging the wetland acreage to 42.2 acres.

The proposed development would require extending existing streets and building new ones on 1.9 acres of the wetland. The impact of increased traffic and road chemicals on wildlife raised questions from trustees and a standing-room only crowd of neighbors attending a Village of Bartlett board meeting on January 20. The developer, Dartmoor Homes based in Hoffman Estates, requested a variety of zoning variances.

The Illinois Department of Natural Resources requires a 50-foot conservation easement from the edge of a wetland. The proposed development includes this 50 feet as part of the new homes’ backyards with building restrictions. Neighbors feared that this design, coupled with a requested variance in side and front yard size to accommodate larger homes, would change the character of the area entirely and displace wildlife as well. At the Village meeting, a resident and volunteer steward stated that the adjacent Wayne Grove Forest Preserve is home to animals on the Illinois Endangered Species list. A subsequent study, requested by the Bartlett trustees, revealed that the Wendt property serves as a significant wildlife corridor between Wayne Grove and the Sunrise Lake Outdoor Education Center.

Piszczek and Knuth discovered that the Forest Preserve District of DuPage County has begun identifying and acquiring key parcels as result of a $75 million bond referendum that passed last November. They felt the location and quality of the Wendt property would complement the County’s land preservation goals. In hopes of protecting the open spaces they had sought in moving to Bartlett, neighbors wrote the Forest Preserve District to encourage the purchase of the property.

In March, Piszczek and Knuth submitted a petition with 533 signatures requesting that the Bartlett Village Board endorse the District’s purchase of the Wendt property. On May 19, the Forest Preserve Board of Commissioners approved the acquisition of this property, more than doubling Wayne Grove Forest Preserve. “This is the highest quality parcel in District 6 that we’re considering for acquisition. It combines wetland, marsh, and woodland all together,” said Janice Roehll, Land Acquisition Manager for the Forest Preserve District.

The neighbors had originally hoped only to ensure responsible development. Now Piszczek says, “I can see this area becoming the heart of Bartlett, with trails and a nature center.”

But on July 8, negotiations at a standstill, the Forest Preserve District filed papers to condemn the land for conservation. That same day, 30 minutes earlier, the Village of Bartlett supported the developer by filing to condemn parts of the woodland for streets and sewers. “The citizens of Bartlett brought us a property, that through the process of evaluation came out at the very top of our list as environmentally valuable,” commented Forest Preserve District Commissioner Linda Kurtawa. “The Village’s proposed east-west street connection requires removing a vast number of trees out of the woodland. Roads and sewers are incompatible with why we sought to acquire this property.”

News of the Wild will follow this story in future issues.

—Alison Camey Brown
I traveled a long way in life until I came to a prairie.

Perhaps there were some prairie patches in southwestern Michigan where I grew up—or the Chicago suburbs I lived in after college. But no one ever told me about them.

Though I learned the geography of faraway places, there was no mention of prairie in any of my schooling from kindergarten through a master’s degree. I enjoyed nature and traveled to see mountains, seashores, caves, forests, rock formations, lakes. I didn’t meet any prairies there.

While I knew the value of faraway rainforests through television, I never saw a Nature or National Geographic television program on prairies, the natural heritage of this area. Prairies were not part of my roles as a housewife, single parent raising two children, and as a professional environmental manager. The culture I had lived in had such little pride and knowledge of its natural heritage that it had been unable to give itself, including me, a prairie experience.

I first walked a prairie in August 1990 when I was in my fifties. I had been contributing to The Nature Conservancy for several years and decided to take the Markham Prairie walk they offered members. The guide told us that the misfortune of the Depression had saved the Markham Prairie from the development which surrounds it and that people had discarded trash on it for years.

It was a hot day. Walking along trying to hear what the guide said, I distractedly waved and slapped at the mosquitoes attacking me from a nearby ditch. There were no defined paths on the prairie, and we were enveloped by the tall grasses and flowers. Being inside of nature instead of on the outskirts was a new, multi-sensory experience for me, which my conscious mind could not digest. Outwardly, I was sweating and slapping and pushing grass out of my face, not a promising first encounter. But at another level, only realized in retrospect, I liked being close to nature.

Not knowing anything of prairies, I had no knowledge to build on. I didn’t learn a lot on that first prairie walk. I did learn that a tall, rose-pink, spiked flower was commonly called a blazing star and that its flowers bloomed from the top down instead of from the bottom up. Shortly thereafter, I felt proud of myself when I could identify a blazing star in a bouquet at a funeral I attended. But I also wondered why they were in a florist’s bouquet and not in local gardens when they were native to the midwest? Why didn’t I know about these beautiful flowers sooner?

The other thing I remember is touching a green snake, a resident of the prairie. One of the guides was an herpetologist. He had brought a green snake and let us touch it. He coaxed us out of our deep fear of snakes by telling us that touching the brilliant neon green snake would be a sensuous experience. I was intrigued by that. He was right: the snake did feel good.

Like Eve interacting with the snake in the Garden of Eden, meeting that snake in a prairie was for me a seminal experience. It awakened me to the joy of prairies and ignited a passion that would determine my path in the years since then. Trying to make up for lost time, for not seeing prairie flowers in bloom more than half my life, I have walked that path with ardor. I have taken nature hikes and naturalist classes. I have poked around in wild-looking places searching for evidence of prairies. Soon I recognized a common thread among prairies in our area. While there were patches of virgin prairie, there were no pristine prairies. They all seem to have been degraded, if not destroyed. Functionally on the edge of extinction, the remaining prairie remnants are all in some state of rescue, restoration, or reconstruction.

I have read books and written letters to government officials and newspapers concerning natural areas. I became a volunteer worker at two local prairies, Liberty Prairie in Grayslake and Buffalo Grove Prairie in Buffalo Grove. Outraged that it took me more than half a century to discover a prairie, the natural heritage of the areas where I’ve lived my whole life, I am determined that prairies should
S U M M E R 1 9 9 8

thrive. I am determined that today's children can experience the prairie many times before they are 50.

W hat the prairie tourist learns is that prairies are exciting places—a true secret garden—rich with diversity, alive in the rhythm of the seasons. Experience the prairie in June and bask in the cream colors of wild indigo. Experience it a few weeks later dressed in yellow and pink as the grasses start to rise. Then, by August, you're in it instead of over it, turkey-foot grass over your head and ladies' tresses orchids at your feet. Charles Darwin notwithstanding, prairies are a testament not so much to survival of the fittest but to harmony of the diverse. And as such, they are models to human organizations.

Many midwestern towns have an historical museum depicting the lives of their settlers. Few, however, have a living museum of the area's natural heritage. This is particularly strange considering how tallgrass prairies have supported human advancement. The decay of the roots of prairie plants over millennia built the black soil of the midwest. The invention of the steel plow enabled settlers to break through the thick prairie sod and to plant crops. Prairies rapidly became this country's breadbasket to feed an expanding country, to feed the world. Despite this tremendous contribution prairies have made to human history, we are culturally illiterate about them.

As I have come to know prairies, the natural heritage of this region, I have come to love this place where I live. Before, I always had an itch to travel and see the natural wonders of faraway places. I accepted the harsh assessment people gave the northeastern Illinois terrain. Like others, I called our landscape flat and boring and, in doing so felt a low self-esteem for living here. As I've become familiar with prairies, I realize that whatever boredom exists in our landscapes is recent and unnecessary. In learning the inner and outer stories of prairies, I find I don't want to go away or I may miss the bloom of butterflyweed or the seeding of big bluestem. Like the long, long roots of many prairie plants, I have become happily rooted in a wonderful place, Chicago Wilderness.

Like the long, long roots of many prairie plants, I have become happily rooted in a wonderful place, Chicago Wilderness.

—Verie Sandborg
The three species in this photo are engaged in an ancient ritual. The camouflaged caterpillar, as it eats rare flowers, is attended by ants. Soon the ant on the back of the pink caterpillar will begin to stroke it. Something wonderful is in process.

The fat caterpillar would tempt many an insect predator, were it not for the ants that guard it. Nice ants, huh? Yet these are also selfish ants, perhaps even addicted ants. They softly brush that larval body with their antennae, they caress it, and it reciprocates by producing droplets of a fluid that the attendants devour greedily. Yes, an intimate relationship proceeds in these rare flowers.

Many of the gossamer-winged butterflies—the coppers, the blues, the hairstreaks—have co-evolved with certain ants to supply each others’ needs. The butterfly caterpillar makes substances that are highly sought-after by the ant, and the ants ward off parasites and predators that would otherwise eat the future butterfly. When full and fat, the caterpillar may head down into the thick of the ant’s underground nest to pupate, overwinter, and emerge as a butterfly the following spring.

What does the plant get out of this? Perhaps nothing, but perhaps the ants protect it too. Ants do protect many plant species that provide them with special services. When ants were experimentally removed from certain other plant species, the plants were consumed utterly by hordes of herbivores the ants had fended off.

This caterpillar is the larva of the silvery blue—a butterfly thought extinct in Illinois until the 1980s. At that time, interest in re-discovering the savanna inspired biologists to look in new places. Where botanists found remnant populations of savanna flora, ornithologists found rare birds, mycologists found rare mushrooms, and lepidopterists found rare butterflies.

The silvery blue was rediscovered by Ron Panzer at Wadsworth Savanna, a site first identified by botanists for its rare plants, like the veiny pea which the rare caterpillar was busily eating. The Lake County Forest Preserve District bought the land, and restoration management began.

That’s conservation. Without it we lose species, but “species loss” sounds so thin. What’s really lost is millions of thriving lives. The fragrances, the bird calls overhead, the stroking. Millions of years of evolution thrive in Chicago Wilderness. Conservation saves the ancient drama, and keeps its life fresh with ours.

A hummingbird moth hovers near milkweed at the Schulenberg Prairie at the Morton Arboretum.
Photo: Karen Engstrom

Chicago Wilderness Members:

Brookfield Zoo
Butterfield Creek Steering Committee
Calumet Ecological Park Association
Campton Historic Agricultural Lands, Inc.
Canal Corridor Association
Chicago Academy of Sciences
Chicago Botanic Garden
Chicago Ornithological Society
Chicago Park District
Citizens for Conservation
City of Chicago, Department of Environment
The Conservation Foundation
Conservation Research Institute
The Field Museum
Forest Preserve District of Cook County
Forest Preserve District of DuPage County
Forest Preserve District of Kane County
Forest Preserve District of Will County
Fort Dearborn Chapter, Illinois Audubon Society
Friends of the Chicago River
Friends of the Parks
The Grove National Historic Landmark
Hammond Environmental Education Center
Illinois Department of Natural Resources
Illinois Natural History Survey
Illinois Nature Preserves Commission
Indiana University Northwest
Lake County Forest Preserves
Lake Co. Stormwater Management Commission

Lake Michigan Federation
Lincoln Park Zoo
Long Grove Park District
Max McGraw Wildlife Foundation
McHenry County Conservation District
Metropolitan Water Reclamation District of Greater Chicago
Morton Arboretum
The Nature Conservancy
No. Cook County Soil & Water Conservation District
Northeastern Illinois Planning Commission
Openlands Project
Prairie Woods Audubon Society
Save the Prairie Society
Schaumburg Park District
John G. Shedd Aquarium
Shirley Heinze Environmental Fund
Sierra Club, Illinois Chapter
St. Charles Park District
Sustain, The Environmental Information Group
Thorn Creek Audubon Society
Urban Resources Partnership
US Army Corp of Engineers, Chicago District
US Dept. of Energy, Argonne National Laboratory
US Dept. of Energy, Fermi National Accelerator Laboratory
US Environmental Protection Agency, Region 5
US EPA Great Lakes National Program Office
USDA Forest Service
USDA Natural Resources Conservation Service
USDI Fish & Wildlife Service
USDI National Park Service
The Wetlands Initiative
Wild Ones Natural Landscapers, Ltd.
Chicago WILDERNESS
P. O. Box 268
Downers Grove, Illinois 60515-0268