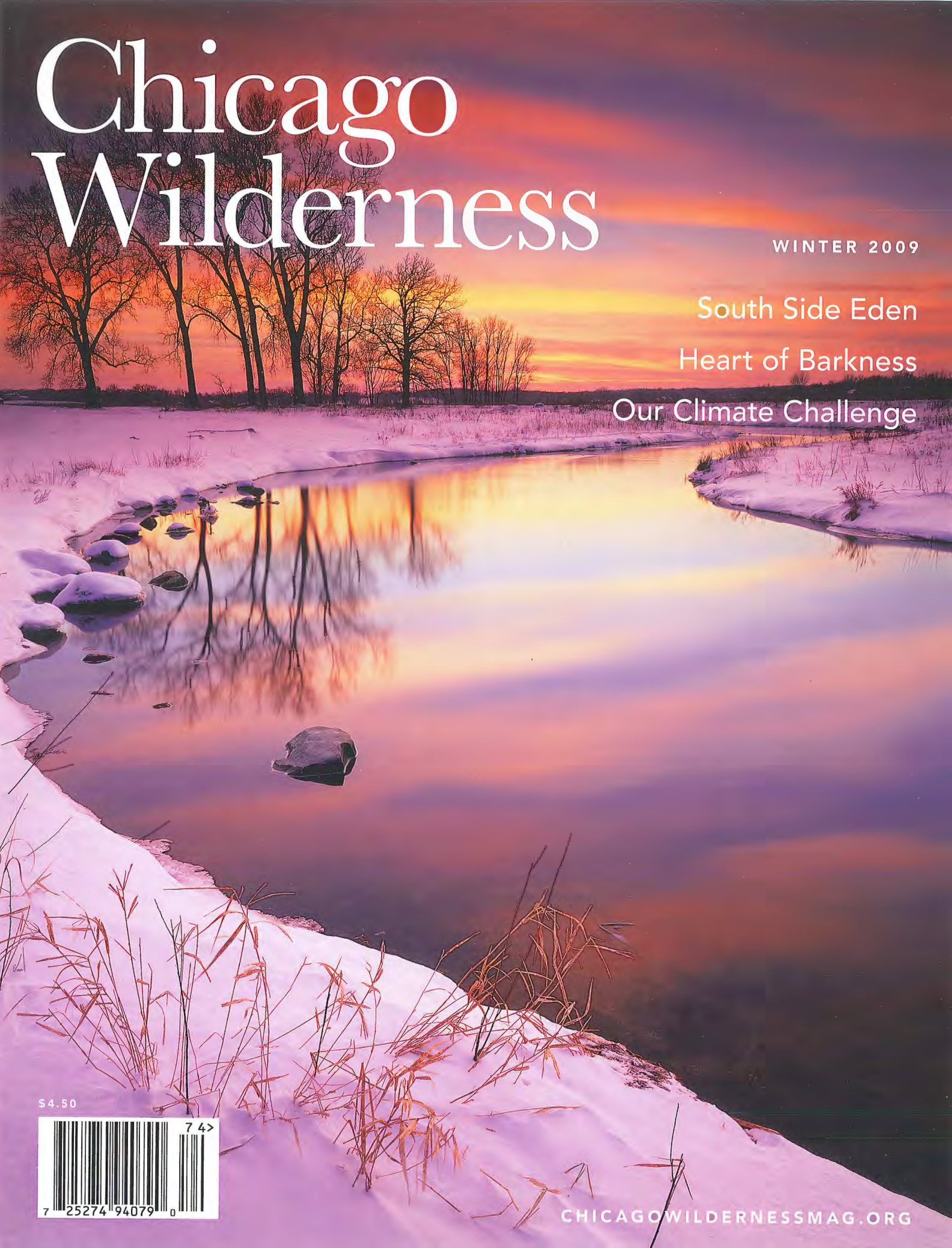
Chicago Wilderness

WINTER 2009

South Side Eden

Heart of Barkness

Our Climate Challenge



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Chicago Wilderness is a regional alliance that connects people and nature. We are 234 organizations that work together to restore local nature and improve the quality of life for all living things, by protecting the lands and waters on which we all depend.

OPPOSITE: Tracks along a frozen slough at Spears Woods Forest Preserve in the Palos Preserves. Photo by Mike MacDonald/ChicagoNature.com.

Chicago Wilderness

Priorities and Participation

It has to be a sobering time for the president-elect. Not a week after the election of Chicagoan Barack Obama as the next president of the United States, the pundits were advancing theories on how he will approach the enormous challenges facing him. Will he take a "big bang" approach—attack all fronts immediately, from economic meltdown to war to the climate crisis—or take them on one at a time?

On a regional scale, Chicago Wilderness faces an equally critical list of challenges. Consider just a few of them: Despite significant restoration efforts, many of the roughly 360,000 acres of protected natural areas still suffer from lack of management and funding. They are declining in ecological health, losing potentially irreplaceable plants and animals, becoming overwhelmed by invasive species, and languishing without the natural fire they need. Open spaces, farmland, and potential future preserves are lost daily to poorly planned development. Climate change may make it even more difficult to maintain biodiversity. And fewer children are getting the time outdoors they need to become caring stewards.

Peggy Notebaert Nature Museum

Photo: Dan Rest

Man! It's enough to cause a person to make like a prairie crayfish and head for the nearest hole in the ground.

Yet Chicago Wilderness, an alliance of conservation organizations that started 12 years ago at 34 members and now numbers 234, has done anything but. It has instead created a bold vision for this region: to foster a culture of conservation and make real change on the ground.

Chicago Wilderness has accomplished much already, as a catalyst for cooperation and a strong voice for nature. But it became clear to many of its leaders that the alliance needed to push harder on its own "big bang" approach. So Chicago Wilderness identified four core initiatives: restoring and managing ecosystems on protected lands, making conservation central to regional land-use choices, reconnecting youth with nature, and addressing climate change's effect on local ecosystems. To succeed, they believe, these fronts must all move forward simultaneously.

This issue is full of people meeting these priorities in their own ways. On page 6, we look at what a climate shift may mean for our region, and what the conservation community is doing about it. On page 12, Carol Freeman gets the word out on endangered species through her photography. And on page 28, read about Michael and Amelia Howard, who saw nature and children as integral to the future of their community and so took it upon themselves to build a nature center right in the heart of the city.

Like the Howards, we can't look to structures of authority for all of the answers. Both our president-elect and Chicago Wilderness have been emphatic: institutions can't claim sole responsibility for fixing our problems. They are powerless without the fervent participation of everyone who has a stake (and that's *everyone*). Leaders can set the tone and help identify goals, but we have to figure out where we fit in.

So try a habitat restoration workday this weekend. Take the family or class for a hike. Learn about a native animal. Testify at a city council meeting. Or volunteer with any one of Chicago Wilderness' incredible member organizations. (Find just a few of the many ways to connect at chicagowildernessmag.org.) Put your best skills to work, wherever your passion and enthusiasm lie. Sure, the problems are big and intimidating. But can we fix them? To borrow a phrase from the international man of the hour, "Yes We Can!"

A New Home Base

Chicago Wilderness magazine has a great new home at the Chicago Academy of Sciences' Peggy Notebaert Nature Museum, a place immersed in native plants and rivers of kids learning about nature. You also may notice a new look to the magazine's logo and inside cover. It's all part of a greater sharing of resources within the alliance to reach even more residents. While you may see some changes along the way, expect continued high-quality coverage, with the region's best photos and insights on the rich nature in our backyard.

—Don Parker
EDITOR

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Photo: Jack Graham

Photo: Carol Freeman

DEPARTMENTS

Photo: Dan Walters/AKM Images, Inc.

Photo: Katherine Millett

Cover: *A peaceful winter minute away from traffic and deadlines, at Glacial Park in McHenry County. Photo by Ray Mathis.*

Opposite: *The snowy owl, an occasional winter visitor to Chicago Wilderness. To read about a recent encounter with a snowy, turn to page 5. Photo by Raymond Barlow/AKM Images, Inc.*

A Letter from the Executive Director of Chicago Wilderness, Melinda Pruett-Jones

Photo courtesy Chicago Zoological Society/Jim Schulz

Many fans of *Chicago Wilderness* magazine are familiar with its commitment to telling the stories of the people and organizations who strive to protect local nature. Fewer, perhaps, are aware of the alliance of the same name. A long-time force behind the magazine, the Chicago Wilderness alliance is more than 230 organizations—ranging from small, volunteer-based groups to cultural and research institutions, to local municipalities and federal agencies—that share the magazine's commitment to engage the people of this region in preserving and protecting our natural heritage.

As editor Don Parker notes in his essay, the alliance is focusing on several initiatives to reconnect the region's residents to that heritage, and to ensure its protection for generations to come. These initiatives—to restore and manage natural habitats, to understand and mitigate the effects of climate change on local nature, to implement the Chicago Wilderness vision for a sustainable future, and to leave no child inside—reflect our commitment to combining scientific research, a collaborative approach to conservation, and a caring for both people and nature in ways that benefit all of the region's residents.

Recently the alliance and the magazine revisited our shared identity. We are now poised to engage new audiences and partners in regional conservation efforts. You may recall our original logo was the nodding wild onion, a frail plant that at one time grew on the prairies that are now Chicago's metropolitan region. It reminded us of the beauty we can lose if we don't care for the nature around us. The new Chicago Wilderness identity is bolder and conveys a stronger message. You'll see it reflected in this magazine and on the alliance's new Web site (chicagowilderness.org).

Most importantly, this new look and way of talking about our work is intended to reflect the power of our collective voice: the voice of more than 230 organizations, thousands of volunteers, and even more individuals like you who value their connection with nature. By working together, we can make the Chicago Wilderness region a vibrant and sustainable place for all who live here. I know we are up to the challenge.

Chicago Wilderness

Volume XII, Number 2

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DISCORDANT HARMONY

To the Editor,

Chicago Wilderness magazine is chock full of valuable information about the ecology of northeastern Illinois. Peppered throughout, however, are references to "balance of nature" and "natural equilibrium." I'd like to suggest another perspective.

We have been inculcated with the balance-of-nature gospel for decades. Does such a thing really exist? With the broader perspective of time (as in millennia) one can see that ecosystems are dynamic, not static. Ecosystems are always changing; populations are always in a state of flux. Sometimes change occurs abruptly with Katrina-esque drama. Sometimes the change is subtle, as in the insidious spread of suburban strip malls.

Within and amongst the flora and fauna are fluctuations driven not only by external environmental change, but also by the intrinsic evolutionary maxim: make more of yourself. A coyote doesn't "care" if there's a balance in the Illinois landscape. She just wants to make more coyotes. Prairie dock isn't concerned about a balanced prairie community. Prairie dock is hard-wired to produce more prairie dock.

Thus, natural communities comprise populations that are not headed towards balance *per se*. A more accurate description is offered by ecologist Daniel Botkin as "discordant harmony." The oak-hickory woodlands at the time of European invasion were not in an idyllic state of balance. The tallgrass prairie as the Euro-Americans saw it would have changed with or without our help. There is, indeed, discord in the transformation of the landscape, but one can hear strains of harmony in the cacophony of change.

As a naturalist and educator, I feel the balance-of-nature theme is misleading. I think it's important to communicate to people that the goal of natural areas management is to restore integrity to dynamic natural systems and to enhance biodiversity. Our woodlands, wetlands, and prairies are going to change, whether we like it or not. The beauty of nature is the Technicolor motion picture of change, not a Kodak moment in time.

Valerie Blaine
Somewhere in the Woods at the Edge of the Prairie
Kane County, IL

TURKEY TIME

Hello,

I live in Old Edgebrook in Chicago. It is surrounded by the forest and just off the river. On Sunday, August 31st, we discovered a wild turkey (male, we believe) in our yard. We took a few pictures. Upon further research I learned that pine trees over water are a favorite roosting sight. We have pine trees in our yard and are not far from the river. I have lived in Chicago a total of 40-plus years and in this home about 15 years. I have never seen a wild turkey here. There are plenty of deer, raccoon, etc. Is it unusual for this to occur?

ViDina Marie
Chicago, IL

Editors' Note: By recent estimates, there are about 130,000 wild turkeys living in Illinois. They typically live in more remote wooded areas and are more common in northwestern Illinois than in northeastern. Cook County is the last county in the state to document wild turkeys in modern times. They aren't likely to make a stronghold here, but they do turn up. There was a sighting of a small group in Lincolnshire a few years ago.

LET IT SNOW

Dear Editor,

On November 12 at 6:30 p.m., I was in Skokie, Illinois, in a parking lot at the Old Orchard mall, when I noticed a large white bird flying to my left. I assumed it was a gull since I could not see very far in the dark. But as it swooped into and then perched on the light I knew it was a snowy owl. Then all of a sudden it dove down to the ground after a rat, and my mom and I in our excitement ran over towards it. I stood probably ten feet away from the bird for about two minutes as it looked at us and we looked at it. (I was also digging for my phone to try and take a picture.) Then it flew to the top of another light stand (where I did finally get my phone and a pic) and then back into the night. I just thought it was interesting to see a snowy owl hunting in the middle of Skokie.

Ashley Jennings
Wilmette, IL

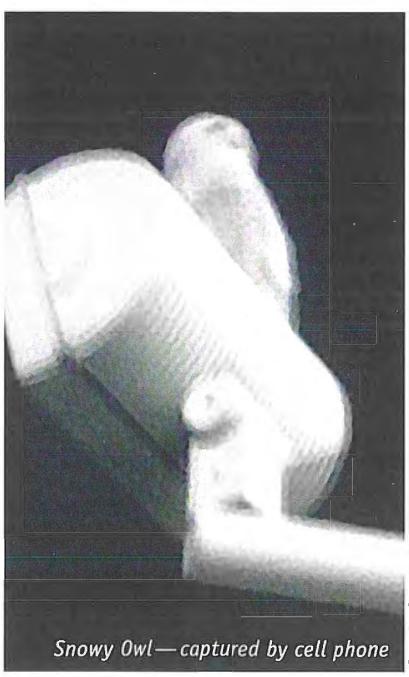

Photo: Ashley Jennings

Snowy Owl—captured by cell phone

Response from Marianne Hahn, Thorn Creek Audubon: What a wonderful sighting! Congratulations. Author Ken Brock says that November and December are the best months to see snowies. When food supplies dwindle up north young owls are forced to leave in search of better hunting grounds. The older birds have established territories, which they defend, thus we see mostly young birds coming this far south.

Migrating raptors tend to follow the shoreline of Lake Michigan, and the mall is only about four miles away. Furthermore, the mall is adjacent to a large cemetery and a big golf course. Both of these are attractive open spaces for raptors.

Snowy owls are not strictly nocturnal. I have seen them hunt in Michigan's Upper Peninsula and Chicago's lakeshore during the daytime. If you think about it, this owl normally lives in a part of the planet that has 24 hours of darkness, but also summers with 24 hours of daylight, so it cannot be too tightly bound to photoperiods.

Seeing the owl this early might mean that it will be a big year for them in Chicago. If so, good places to find them are Montrose Harbor, Northerly Island, or Navy Pier! (And see Raymond Barlow's photo opposite the table of contents in this issue.)

CORRECTIONS

The purple flower labeled as blue lobelia in "North Shore Ravines" (CW, Fall '08) was not our native lobelia. Also, Nancy Irons wrote to straighten us out: "The photo of the mud dauber wasp nests in the Natural Events (Fall '08) is displayed upside-down. The wasp always builds its nest with the opening pointing downward. If the nest pointed up, it would catch the rain and drown both the egg and stunned prey." CW regrets the errors.

Our Climate Challenge

Global climate change is a real problem. But just what impacts will it have on the Chicago region? And what does it mean for nature?

by Jill Riddell

HERE IN THE MIDWEST, we don't see much of the drama of global climate change. While scientists issue dire predictions about the effects of greenhouse gas emissions and the media reports weekly on how it all really *is* happening, we in the Chicago region aren't the ones observing polar bears floundering between ice floes. We don't have glaciers breaking apart and melting in our backyards. Rising sea levels aren't bound to swamp our homes.

Indeed, on Al Gore's famous (and frightening) map in *An Inconvenient Truth*, Chicago appears to fare relatively well in terms of its projected long-term living conditions compared with other American cities. It shows up as neither scorched nor under water.

But Midwesterners are not immune to climate change. The signs here are more subtle, at least so far. Yet people who care about the Chicago region's natural places are urgently seeking answers about how this worldwide phenomenon is affecting us—and how it will impact the fates of plants and animals in our own backyard.

LOCAL TEMPS IN 2100?

Average increases projected for our region:

- **Best-case:** 2–6° F increase
- **Worst-case:** 6–12° F increase

The "best-case" scenario assumes carbon emissions are dramatically reduced from current levels. "Worst-case" assumes carbon emissions continue to increase. No reliable predictions exist for precipitation; it could be 20 percent wetter, 20 percent drier, or anything in between.

Source: Illinois State Climatologist Office

What We Know

Earth's surface temperatures are increasing. The unanimous declaration came in March 2007, when the United Nation's Intergovernmental Panel on Climate Change concluded that the warming of the climate system is "unequivocal" and the probability that warming is caused by natural climatic processes alone is less than 5 percent. (This leaves greenhouse gas emissions from power plants, vehicles, manufacturing, and other sources as the principal culprit.) Some warming has already occurred, more is inevitable, and we're driving it—this much is settled.

Where arguments flare is over how hot the earth will get and how fast, and what will happen in each region. For example, though the western United States shows temperature increases of two degrees Fahrenheit since the 1980s, some states in the northeastern and southeastern United States actually have become a degree or two cooler.

As for us, the Chicago region has measured a temperature increase of a half-degree since the 1980s, according to Illinois state climatologist James Angel. Models for 2100 predict a rise of between 2 and 12 degrees Fahrenheit. To put that in perspective, a 2-degree increase would put Chicago's temperatures at about what Champaign, Illinois, is now. An 8-degree increase would cause Chicago to feel like southern Illinois. Twelve degrees would put Chicago at the approximate climate of Memphis, Tennessee.

Changing Local Conditions

In June 2008, the Chicago Wilderness Climate Change Task Force prepared a list of possible shifts of local conditions due to climate change. Drawing on a range of climate data and models, the task force determined that our region is likely to

THIS HADLEY CENTRE COMPUTER MODEL PROJECTS CHANGES IN TEMPERATURE FROM 1960 TO 2100. IN THIS 'BUSINESS AS USUAL' SCENARIO, ATMOSPHERIC CARBON DIOXIDE MORE THAN DOUBLES DURING THE NEXT 90 YEARS. ORANGE REPRESENTS AN INCREASE OF 9 TO 18 F DEGREES. *SOURCE: METOFFICE.GOV.UK*

experience longer and hotter heat waves in summer. (The City of Chicago estimates that we could have as many as 31 days over 100 degrees by 2099 in a worst-case scenario.) We will have milder winters with fewer extremely cold days and less snow. Warming would lead to reduced ice cover on area lakes, including Lake Michigan, with generally warmer water temperatures.

The task force also considered changing patterns of rain and snowfall. Though more rain may fall overall, it may come as fewer rain events of greater intensity. More extreme weather events could lead both to severe dry spells and more floods. Water levels in streams, wetlands, and lakes might decline for most of the year, then swell up and flood during heavy rains.

Analyzing data from Midway Airport, James Angel notes that the Chicago region is currently in a trend wetter than the historical record. "Temperature is simpler to model because it doesn't jump around as much as precipitation," he says. "Precipitation is a lot harder to predict, even on a scale of what's going to happen tomorrow. It's not unusual for one area to get six inches of rain and another nearby to get a half-inch. But if I had to bet money on it right now, I'd bet Chicago will be on the wet side."

Shift or Shock?

What would such changes mean to the Chicago region's large network of natural areas and the life they support? First, every ecosystem is dynamic. Forest edges expand and retreat. Wetlands and bodies of water are fluid and changing. In fact, the local climate has changed dramatically in the last ten millennia. Two thousand years ago, the Chicago region was dominated by grasslands, supported by dry conditions and landscape-scale fires. Another ten thousand years before that, the landscape was cool, wet, spruce-dotted tundra.

So ecosystems can deal with change. But what happens when average temperatures shoot up over 20 years instead of 2,000? What happens when the conditions of the region shift to those of another in the span of one or two human generations? Can species adapt?

Climate change won't spell trouble for every plant and animal species and every type of community. Some will respond well, while others will atrophy. "In general, affected species have three possible responses to global climate change, which can best be summed up as 'change, move, or die,'" write scientists Robert Sullivan and Milt Clark in the *CW Journal* article, "Can Biodiversity Survive Global Warming?"

Ecosystems on the northern or southern edges of their range are likely first to be affected. The cypress swamps of the Lower Cache River in southern Illinois, which are at the northern end of their range, may fare well in the state. Volo Bog, at the southern end of bog country, may not. In mountainous regions, species may gradually move uphill where temperatures are cooler. That's obviously not going to be the case here. "As flat as we are in Illinois," says Brian Anderson, chief of the Illinois Natural History Survey, "our species shifts are going to be latitudinal—south to north—rather than altitudinal."

Sullivan and Clark report that in the Great Lakes region, the ranges of red pine, black walnut, and sugar maple are expected to contract or expand as the region becomes hotter and, in some areas, drier. Creating predictive models for 134 tree species, Dr. Louis Iverson and Anantha Prasad of the US

"IT'S NOT ALL GLOOM AND DOOM....WE MAY NEED SOME NEW GENES, NEW ALLELES. BUT WE ALREADY RESTORE. WE'LL KEEP RESTORING."

—STEPHEN PACKARD, AUDUBON-CHICAGO REGION

Photo: Dave Jagodzinski

Photo: Eric Secker

Photo: Dave Jagodzinski

Climate change appears to be giving a boost to opportunistic species such as kudzu, which drapes itself over entire landscapes. Increased levels of carbon dioxide, a greenhouse gas that causes climate change, have been found to increase not only the prevalence of poison ivy, but also how much it makes us itch. Research indicates that changing climate benefits some plants, such as Canada thistle, that already invade rich habitats.

Forest Service concluded that oak-hickory forests would likely expand across the eastern US, while cooler-weather woodlands of maple, beech, and birch would contract. Northern spruce-fir forests may disappear altogether from the nation. Physiological ecologist Dr. Hormoz BassiriRad documented significant declines in the growth of mature oaks and oak seedlings due to climate change.

"It's not all gloom and doom," says Stephen Packard, director of Audubon–Chicago Region. Packard suggests that the trend toward sugar maple die-off might actually benefit the Chicago region's threatened oak woodlands. Because of the suppression of natural fires, sugar maples are currently more successful reproducers than oaks. With climate change, maples might lose this human-created competitive edge.

CLIMATE CHANGES SO FAR

As compared to the historical record, the Chicago region has experienced slightly wetter conditions with fewer droughts since the 1980s. More specifically, we've seen:

- Average temperature rise of .5 degrees
- 10 percent increase in precipitation
- Less frequent droughts
- Increased heavy precipitation events
- Fewer days below zero degrees
- Fewer days at or above 90 degrees
- Earlier date of last spring freeze, by about 4 days
- Unchanged date of the first fall freeze

Severe weather events such as tornadoes show no change. Increases in the count of weak tornadoes are attributed to improved detection.

Temperature data (except for average temp) from Midway airport weather station, 1928 to present. Analysis by Dr. James Angel, Illinois State Climatologist.

"Many finely tuned species may get lost from small, finely tuned refuges," says Packard. "But our prairie ecosystems and savanna ecosystems extend all the way down to Texas with a lot of the same species in them. We may need some new genes, new alleles. But we can get them. Land managers already restore. We'll keep restoring. We may simply need to import some of our seeds from farther south."

Still, research suggests that populations of even widespread species may have difficulty adapting to the climate shift fast enough. A plant population that adapts to the conditions in one part of the continent over thousands of years may perish before it can migrate or be transplanted, or may not have the genetic make-up to thrive in a new site. In 2001, Julie Etterson, then a doctoral student at the University of Minnesota, studied the partridge pea, a prairie plant that grows across North America. Planting seeds from Minnesota plants in Kansas and Oklahoma, she found that the newcomers to Kansas' hotter, drier conditions (close to Minnesota's predicted conditions in coming decades) produced 84 percent fewer seeds.

At the recent Chicago Wilderness Congress, Chicago Botanic Garden conservation scientist Dr. Pati Vitt discussed the federally endangered Pitcher's thistle. Since it grows only along the shores of the Great Lakes, when its "bioclimatic envelope" shifts north of the lakes, as predicted, it will likely disappear.

Modern land development complicates matters still further. Even if plants are genetically capable of surviving swings in temperature and moisture long enough to move, their migration may be blocked by cities and vast fields of corn. It will be hard for a bog-loving species to locate another bog to love after the one it lives in grows too warm.

Weeds—those opportunistic plants that can easily take advantage of disturbed land—appear to be one group of plants with a leg up in the climate race. Capable of handling much of what both humans and an unusually unstable environment can dish out, they're also able to move great distances in a short

time. Kudzu, the "weed that ate the South" has already spread into 30 counties in Illinois. It has been found as far north as Evanston, where it inundated an acre along the el tracks.

In contrast, many native plants on the endangered species list suffer from small gene pools and exacting requirements for where they can or can't live. Such conservative species will have to add climate instability to a growing list of hardships, especially as atmospheric changes appear to favor many of the invasive species with which they already struggle.

Animals

Animals will face serious challenges as well. Because of their already precarious position, amphibians are one group that has biologists worried. Worldwide, frog and salamander populations have been dropping precipitously for the past three or more decades. One hundred sixty-eight species have gone extinct. Habitat loss is the primary cause, but amphibians are sensitive to slight changes in temperature and moisture, and rapid climate change is unlikely to improve the odds of survival.

Locally, hydrological changes in Ryerson Woods Nature Preserve in Lake County have caused vernal pools to dry up so early in the summer that the water is gone before larval blue-spotted salamanders and wood frogs can transform to the stage where they can breathe out of water. Though extensive hydrological restoration work is being conducted at Ryerson to remedy the problem, similar troubles plague other natural areas in the Chicago Wilderness region. Hotter temperatures will make existing underlying problems worse, causing water to evaporate earlier and earlier in the year.

Temperature rises in larger water bodies may also wreak havoc. Sullivan and Clark assert that the most significant effects of climate change on wildlife will be on aquatic animals such as fish, as well as other species that depend on water for breeding and feeding, such as amphibians and waterfowl.

WHAT WE NEED TO KNOW: CONSERVATION'S TOP CLIMATE QUESTIONS

1. How do we best **predict** and **track** the way regional nature is changing?
2. What will the **mismatch** between climate and habitat look like? Which species will lose sync? Which will get together?
3. Which plants and animals will **benefit**? Which will **suffer**?
4. Should we **revisit** land management practices such as using **only local seeds** in our restorations?
5. How could loss of biodiversity affect the **other services** that nature provides society?
6. Will we need to give up on saving **certain species** and take up the cause of others farther south?
7. How will habitat fragmentation and invasive species **interact** with climate change?
8. Which **key lands** and **corridors** should be protected first?

"With birds, there's evidence in the Chicago area that migration is occurring earlier in the spring and birds are staying later in the fall," says Field Museum ornithologist Doug Stotz. "Some southern birds have moved into the Chicago area. Tying that to climate change is a different issue, but I would say there's plenty of evidence, in both migratory timing and distribution, that changes are occurring in birds."

Deanna Zercher of The Nature Conservancy of Illinois points out that climate change may affect which native birds we see in our grasslands. She says that bobolinks, whose range centers to the north of us, may decline, while dickcissels, centered to our south, could become a more common sight.

A major concern is whether plants and the insects that pollinate them will remain in sync. If a particular flower blooms one week earlier every year, will its preferred pollinator also


Pitcher plant

Photo: Dave Jagodzinski


Blue-spotted salamander

Photo: Michael Redmer


Dickcissel

Photo: Rob Curtis

Climate change could affect different species in different ways. The pitcher plant, a species of northern bogs, may not be a part of Chicago Wilderness in 100 years. Salamanders may decline due to vernal pools drying up too fast. Though some species—such as the dickcissel, an important grassland bird—could increase in our region, some scientists worry the climate shuffle could result in a large net loss of biodiversity.

Photo: Jack Graham

Bogs, a type of wetland, are much more common in Minnesota and Wisconsin than they are in Chicago Wilderness, but our region is much richer for its few high-quality remnants, including Volo Bog (shown here). Scientists expect such ecosystems on the southern edge of their range to have a harder time with the warmer conditions brought about by climate change.

hatch out earlier, or will it lag behind on the old schedule? And how will that affect the birds that rely on those insect pollinators as a source of food during migration? Considering the interconnections within ecosystems, a small change could create a much larger ripple effect.

For all we are learning about the effect of climate change on local biodiversity, there is a faster-growing list of questions. INHS' Anderson says scientists have barely begun to tackle the issue. "Very little local research is currently being done related to climate change," he says. "A lot of the species-specific work that shows the impact of climate in other parts of the country is happening at high altitudes" where researchers see more pronounced climate effects. But research will be a critical tool for our region too.

Into the Future

The future is always uncertain, but swings in human population further complicate matters. The late Strachan Donnelley, founder of the Center for Humans and Nature, speculated that if conditions don't deteriorate in Chicago as badly as in other parts of the country, the region could be inundated with people moving in from the flooded East Coast and drought-stricken West. A population boom would represent its own challenges: greater pressure to expand highways and housing onto open land, increased use of forest preserves, diminishment of aquifers, high demand for Lake Michigan water, an intensifying heat island effect from pavement and buildings, and so on.

Such scenarios have made climate change a top priority for leaders across governments, organizations, and disciplines. This September, the City of Chicago released an ambitious plan to cut Chicago's greenhouse gas emissions 20 percent below 1990 levels by the year 2020. The longer term goal is to reduce emissions by 80 percent by 2050. Acknowledging the role climate is playing in nature, in 2007 the Chicago Wilderness alliance identified climate change as one of its four major initiatives.

Despite the many unknowns, leaders are urging immediate, sensible action. The mission of restoring and connecting ecosystems, creating migration corridors, and encouraging sustainable development has dominated the actions of Openlands, The Nature Conservancy, and other groups for more than a decade, but greater funding is needed now to get the job done quickly. More recently, Chicago Wilderness has created a "Green Infrastructure Vision"—a series of multi-layered maps and associated outreach efforts—to help local governments, land agencies, and communities connect natural lands across the landscape. As a final backstop, says the Chicago Botanic Garden's Vitt, who curates the National Tallgrass Prairie Seedbank, biologists are busy collecting and preserving native seeds, to preserve plants' genetic legacy in case we can't act fast enough.

Humanity is now acting on many fronts to turn the massive ship of climate change around. Nature has many ways of adapting to the changes we create, but humans can increase nature's chances of success by protecting large, varied nature preserves that will be more resilient to change. "Our goal is to manage natural areas in such a way that we keep the systems in place that keep the ecosystem healthy," says Jane Balaban, a long-time steward in preserves along the Chicago River. "When you start with something healthy and in good shape, you fare better. You're in position to respond to and be resilient in the face of what is coming. It's more important than ever to do that."

CLIMATE ACTIONS YOU CAN TAKE

- Reduce your carbon footprint and support national emissions reductions. Find out how at **epa.gov/climatechange/wycd** or **wecansolveit.org**. For local info, visit **chicagoclimateaction.org**.
- Support habitat restoration—healthy ecosystems are tougher ecosystems. Visit **chicagowildernessmag.org**.
- Support local climate and ecosystem research. Volunteer or donate **at chicagowilderness.org**.

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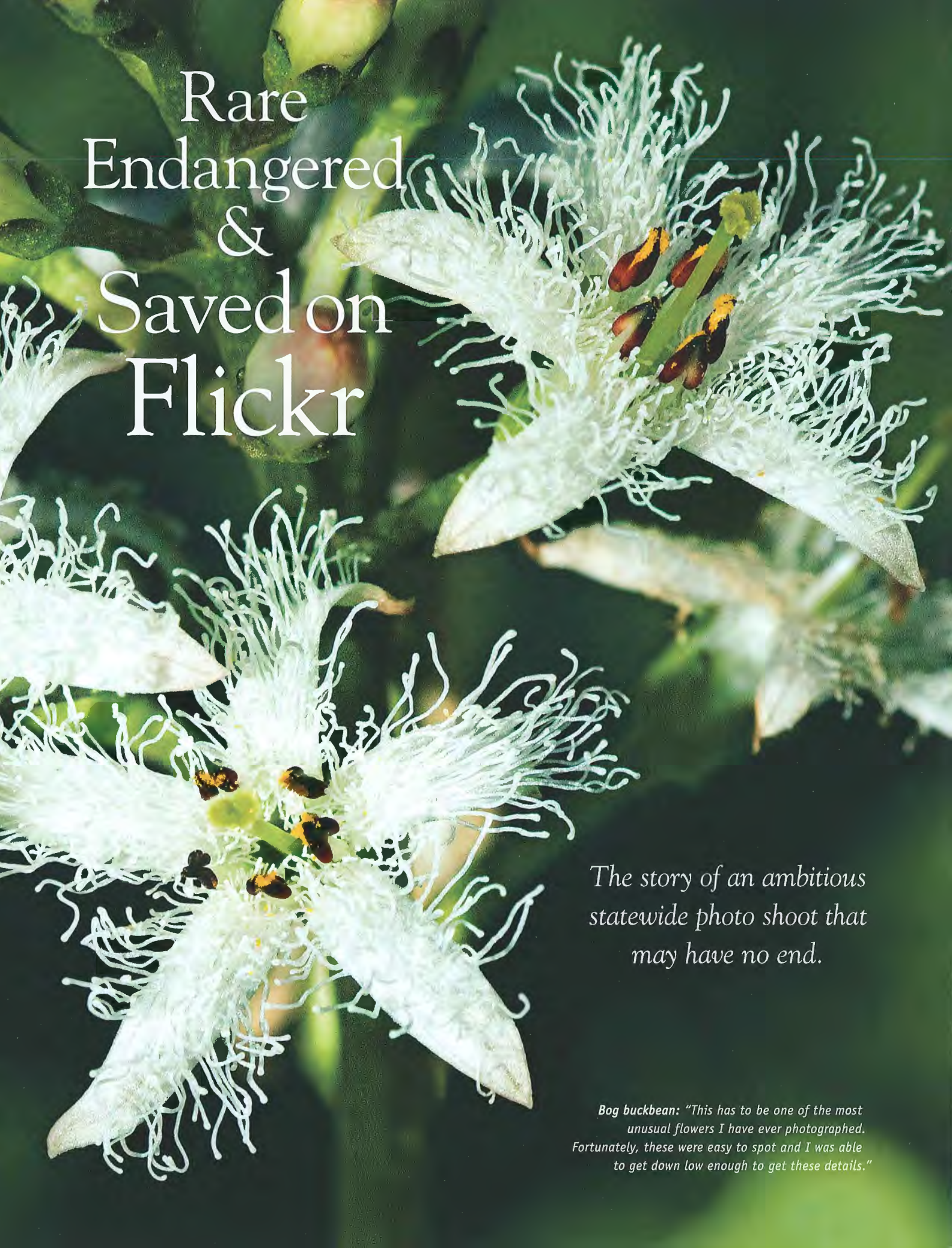
*For more information on joining the Corporate Council, call **Patricia Cassady** at **630.829.1142.***

Rare Endangered & Saved on Flickr

The story of an ambitious statewide photo shoot that may have no end.



Bog buckbean: *"This has to be one of the most unusual flowers I have ever photographed. Fortunately, these were easy to spot and I was able to get down low enough to get these details."*

PHOTOGRAPHER CAROL FREEMAN IS ON A MISSION. From her home base in Glenview, she has spent the last four years tracking down some of the rarest plants and animals in Illinois. It's part of her project to photograph each one of the state's endangered and threatened species. She recently captured #100—a fine aromatic plant called sweet fern—but the toughest may be yet to come. We asked Freeman about her process, her finds, and the long road ahead.

What is the Endangered Species Photography Project, in a nutshell?

The goal is to photograph all 483 threatened and endangered species in Illinois and use the photos for educational purposes. It officially started in 2004.

How do you go about finding these photos?

First, I dug up the latest *Checklist of Endangered and Threatened Animals and Plants of Illinois*. I contacted several naturalists I had met or worked with in the past and asked if they had any of these species on their lands that I could photograph, and it grew from there. I also work with Plants of Concern, which monitors many of the plants on the list. The monitors and I coordinate schedules and bloom times and hope we can be in the right place at the right time to get some beautiful shots. I don't want to just document these species, but to take inspirational and beautiful photos as well, so conditions such as light, blooms, wind, *et cetera* become very important.

So you've hit 100 species. What's your plan for finishing the list?

Just 383 to go! I may never get them all, and the list changes every five years. I would like to get as many as possible. But the journey here is really the important part.

Have there been any unusual situations where you thought, "What the heck am I doing here?"

Some of the species are in fairly remote locations and do require quite a hike through unfriendly terrain. The worst was a three-hour search on a very hot, humid day, for a plant growing in tick-infested brush that, in the end, we never found.

What photos are you most proud of?

The shots of the Hine's emerald dragonfly. I did the research on where to find them and went out every other week during the flight season for three years before I found the species. No expert, just me and the camera.

What was the hardest shot to get? The easiest?

The Hine's emerald took the longest to get, but the dragonfly actually flew right in front of me and landed on a cattail while I stood on the trail. The easiest was when a federally endangered plant, the leafy prairie clover, was found growing in a yard and the owner called to let me know it was there. The hardest ones are some that I have yet to get, especially the fish and the bats.

What has been the coolest species?

I just love the orchids. It still amazes me how many native orchids we have in Illinois.

Snakemouth orchid: "Many people are amazed when I tell them that Illinois has native orchids."

Barn owl: "This is a captive bird. It is unlikely I would find this species in the wild in Illinois anymore."

Purple fringed orchid: "I had to fight off hoards of mosquitoes to get this shot."

Hine's emerald dragonfly: "I went out every other week during the flight season to Lockport Prairie for 3 years until I finally spotted this female. I was in shock for days until it finally sunk in that I had actually photographed the rarest dragonfly in the US."

Mountain blue-eyed grass: *"The endangered species looks very similar to the common variety. Even an expert can sometimes get the wrong plant."*

Carex formosa: *"I look for ways to make these humble plants look good."*

Small sundrops: *"This population is in an easy-to-get-to location that made it easy to keep off the habitat."*

Sandhill crane and chick: *"Photographed at Volo Bog. What was fun was that I saw the adult first and then the bonus of this very tiny chick."*

How many miles in the car and hours in the field do you think you've logged doing this?
Many miles and many hours. The good news is I have been doing all this driving in a Prius! I always try to group shoots in an area, if possible, to cut down on driving.

What do you think about while you're in transit?
I think about what a wonderful job I have.

How many of these rare species are you finding in the Chicago region? Do you have a sense of the role our corner of Illinois plays in their survival and recovery?
About two-thirds of the species can be found in the Chicago Wilderness region. Many can't be found anywhere else in Illinois. Every bit of land—green space, park, and private property—helps provide the habitat they need, both the species that live here and the ones that migrate through. But it's really a handful of the best-managed preserves, many of them in the Chicago region, that support most of the rare stuff.

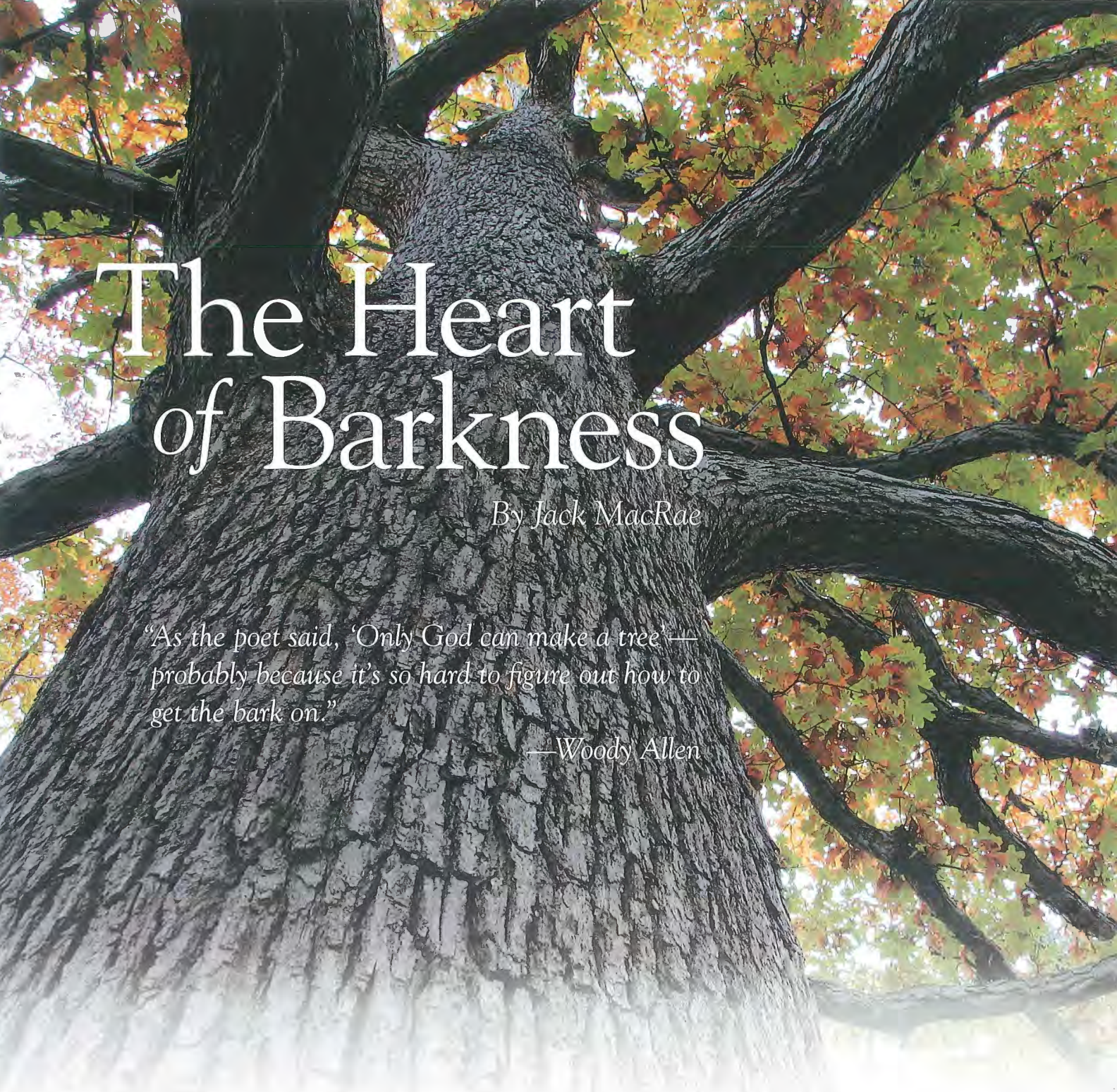
What are the greatest challenges facing these species? What is your project doing to help their situation?
I'm not a scientist, but it seems to me that land development, a lack of good management practices like controlled burns, and toxic chemicals are some of the greatest threats. I hope these photos let people know that endangered species are not only an issue in Africa or India but right here in Illinois, and we do have the power to protect and preserve many of them. Anyone can join a restoration workday or learn to monitor species. Or they can encourage local leaders to support green development and active land restoration. I also try to set a good example myself. I never bring a tripod or extra equipment while on a shoot, to minimize my impact in the field. And I do not give out the location of any plant, to protect them from possible poachers.

Why is it important that we protect these species? How much are our lives really affected if some plant or animal disappears that's so clearly difficult to find anyway?
I think protecting them gives us hope, hope that we can have a beautiful world to leave for the next generation. It also reminds us to appreciate what we have.

Is there a "holy grail" out there for you still?
I think now I would really like to get shots of the Franklin's ground squirrel. I haven't gotten any mammal photographs from the list, and this is a species people are talking about.

How will you celebrate if and when you finally photograph the last species?
I think I will move to a new state and start all over!

See more of Freeman's endangered species photos at **flickr.com/photos/inbeautyiwalk/tags/espp**.
Have a lead or a need for a rare Illinois species photo? E-mail her at **carol@carolfreemanphotography.com**.



The Heart of Barkness

By Jack MacRae

"As the poet said, 'Only God can make a tree'—probably because it's so hard to figure out how to get the bark on."

—Woody Allen

Everything you always wanted to know about tree bark but were afraid to ask.

In a roundabout way, tree bark has been a recurring factor in my livelihood. As a youth, I looked at bark with an entrepreneurial eye. My scheme was to set up a card table and sell pieces of bark to tourists on Washington Island, Wisconsin. Birch stationary was to be my cash cow; pinecones were an attempt at diversifying the inventory. I closed the stand after one day of zero sales and much sibling ridicule. As a young adult, I had a job where we built a few 18-foot birch bark canoes—obviously good work if you can get it. Currently as a naturalist, I am proficient in extolling the value of trees (generally) and bark (specifically) as I happily push the environmental agenda on new generations of school children.

I trust bark needs no introduction. It is one of the most conspicuous of all natural objects. Examples are literally all around us; chances are good that you are within 100 yards of bark as you read this. Further, bark—unlike the more celebrated leaf—is with us 12 months of the year.

But despite this omnipresence (or maybe because of it), people rarely give bark much thought. Could it be that people might possibly think bark is *boring*?

Bark determines a tree's standing in the community.

Photo: Ron Dahlborg

There is, of course, the boring definition of bark. Most basically, bark is layers of complex plant tissue found on the outside of a tree. The living inner bark transports the nutrients a tree needs for growth. The rough, dry material we're all familiar with—the outer bark—is filled with dead cells and air.

But just like the metal of some random black van isn't all that interesting until you realize it's bulletproof and it's protecting Mr. T and the rest of the A-Team (for readers under 20, that was a reference to the 1980s), it's what bark does that really gets the sap flowing.

Bark is the most protective tissue—plant or animal—in the natural world, a barrier to both freezing winter temperatures and the raging flames of a prairie fire. In a fire regime biome such as Chicago Wilderness, a plant's ability to tolerate occasional scorching ultimately influences the entire prairie-savanna-woodland matrix, which in turn determines the food webs and animal life.

Hot prairie fires incinerate most woody plants. The premier exception is the bur oak, with thickly furrowed fire retardant bark that can't even be ignited with a blowtorch (do *not* try this at home, or anywhere else for that matter). On the other hand, birch bark contains highly flammable organic molecules, such as cresol, phenol, and xylenol, that make it ignite very easily.

Tree bark is remarkably impervious to liquids. Water from outside the tree (rain, snow, lawn sprinklers) cannot get in, and fluids within the tree (sap) cannot get out. Such properties are why one layer of tree bark—the cork layer—is widely used as a bottle stopper. Bark insulates the tree from temperature extremes and protects the interior from disease and insect infestation.

Outer bark must not taste very good, as few large animals eat it on a regular basis. Rodents (beavers being an obvious exception), rabbits, and deer will eat inner bark on occasion, but typically only in late winter when more desired food is scarce. Humans eat bark. Our breakfast would not be the same without our liberal use of powdered inner bark from new shoots of the cinnamon tree.

The medicinal properties of certain barks have been recognized since ancient times. The well-documented effects of willow bark extract for treating fever, pain, and inflammation led to experiments with salicylic acid, an important ingredient in the first laboratory batches of aspirin. Tamoxifen, another well-known "bark medicine," comes from the Pacific yew tree and is a leading weapon in the fight against breast and ovarian cancer.

Bark speaks in volumes, serving as a public record of a tree's life. Many old trees are marred from a lifetime of battles with beetles, fire, fungus, woodpeckers, and pocketknives. These scars are on permanent display; even small wounds leave a mark that can last for years. Interestingly, due to a tree's manner of growing, bark scars always stay at the same height no matter how tall the tree grows.

Bark also tells the story of the land. Naturalists can trace the outlines of old farmsteads by noticing the straight lines of Osage orange with its gold-tinged bark. Rivers and streams can be spotted at a distance by looking for the dark-barked alders and white barked sycamore. Clumps of thick-barked cottonwood can indicate damp ground.

Bark is what gives our trees and forests their identity and, literally, their standing. Using your mind as a bark search engine can provide a new insight into the woods. One astute person said having "bark eyes" is like being given super powers of perception where certain trees pop out of the landscape. Bark boring? Hardly.

BARK ID HINTS

Look at leaves. Spring through fall, look at a tree's bark and then its leaves. Associate them in your mind. (Even in winter, you can often find leaves still on trees or on the ground underneath.)

Look around. Rather than identifying a single tree, try scanning around you and counting similar trees by the general look of their bark. (Are they dark? Rough? What?) Seeing many examples of a species can help you home in on the essence of its form, its gestalt.

Use other senses. You may get funny looks, but don't be afraid to really examine that bark. Look at it up close—there are clues to life in the nooks and crannies. Feel its texture. Smell it—different species can have different scents. Heck, even listen to it. (You may want to stop short of the taste test, though.)

Practice age discrimination. A sapling usually has much smoother bark than an adult tree, so beginners may want to start with adults. Go on a guided hike and ask lots of questions.

Photos: cherry and white oak, Gerald D. Tang; shagbark hickory, thomasbentley.com; sycamore and cottonwood, Don Parker; bur oak and hackberry, Kohout Productions/Root Resources; musclewood, Jack Shouba

SEEING THE FOREST FOR THE TRUNKS

Learning to identify trees in winter—that is, without leaves—is a fine cold-weather activity. With very little practice, one can learn to identify a half-dozen Chicago Wilderness trees by their bark. While some tree species can be challenging to ID, many have bark truly unlike any other.

The **cherry tree** has bark consisting of small dark flakes that look like burnt potato chips. Ironically, these trees thrive in areas where there are few fires.

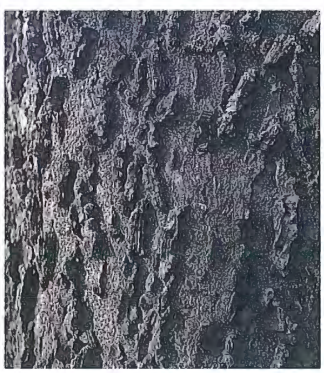
Our great **white oaks** have a flattened, pale bark. They can often be recognized in open woodlands by the wide, pale gray bands around their thick trunks (not shown here). This band is caused by *Aleurodiscus oakesii*, a crust fungus that is actively decomposing the thick outer bark.

Living near the white oaks are the appropriately named **shagbark hickories**. Their trunk is covered with extra large scruffy pieces of peeling gray bark.

Growing along the watersides is the stately **sycamore**, called the "ghost tree" due to its unique bark. The bark in the middle of the trunk is a mottled palette of white, cream, tan, brown, and a range of greens.

The **eastern cottonwood** is the Brian Urlacher of trees—massive and fast-growing. Superficially similar to red and bur oaks, its heavy ridges are even coarser and thicker, resembling fat, flat-topped corduroy fabric.

Bur oak bark is thick and gnarly, with deep, craggy furrows. Its corky bark makes it a survivor in the savanna and on the edges of the prairie. It lacks the shiny plates of the red oak.



The light gray bark of **hackberry** is covered with warty bumps and protuberances. Their layering can evoke the Grand Canyon or other western landscapes.

Musclewood (aka blue beech or *Carpinus caroliniana*) has a smooth bark that easily reveals its twisting, smooth form, resembling arm or leg muscles.

A few bur oaks plus a sticky snow add up to one gorgeous day in the forest preserve.

For some, snow brings to mind tedious shoveling and dangerous driving. But the white stuff is also great to play in. Regardless of your point of view, here are a few fun facts for those snowy days just around the corner.

Compiled by Ron Trigg

Photo: Brian Tang

In the Palos Preserves

Into the Wild: A Little About Snow

The Basics About Snow Formation

The basic building blocks of snow are ice crystals that form from water vapor in clouds. Most of the time they grow around freezing nuclei, which can be specks of dust or floating organic debris such as bacteria, fungi, or pollen. Crystals come in an infinite variety, but almost all are six-sided, ranging from simple hexagons to finely branched stars. As they tumble toward earth, they collide and clump together into snowflakes, which can contain up to 100 ice crystals and be more than an inch across.

Fluffy or Wet

While the Inuit people of the Arctic may have as many as 200 words to describe snow, most of us think of it as being either dry and fluffy (easy to sweep off the driveway) or wet and heavy (a heart attack in the waiting). **Temperature and wind direction** determine which type we receive. When temperatures are close to or above the freezing mark, heavy, wet snow comes down. Colder temperatures in the teens or 20s produce light, fluffy snow. Winds from the northwest (the so-called Alberta Clippers) and lake-effect snow events bring light, fluffy snow, while weather systems coming up from the Gulf of Mexico tend to produce the heavy, wet stuff.

Human Fun in the Snow

Dry snow, often called **powder**, is the preferred variety for downhill skiing and snowboarding. Backyard adventurers, however, do better with wet snow that packs well—it's always the best for building snow forts or making snowballs or snowmen. A layer of well-packed snow also enhances sledding. Indeed, the powdery stuff can be blown off the hill by the wind before you get a chance to enjoy it. A light dusting of snow, however, is best for observing animal tracks, which may reveal the existence of seldom seen mammals such as mink, fox, or even bobcat.

Animals in the Snow

Snow on the ground affects all animals, forcing them to change tactics for feeding, moving about, and finding shelter. Deer are poorly adapted for getting around in deep snow, and they often gather in large groups on **"yards"** of packed snow, where they quickly deplete all available food and may suffer from starvation. Birds such as robins, which can generally tolerate the cold, will migrate when snow cover of as little as three millimeters blocks access to food sources. Small mammals—mice, voles, shrews—carve out an existence in the **subnivian zone** between the ground and the snow layer, where a pocket of above-freezing air allows them to move around in relative warmth. But those same tunnels can also be a death trap if surface snow melts during the day and then freezes solid at night.

Plants in the Snow

While snow cover reflects away some of the sun's warmth, it also provides **insulation** from the worst of winter's cold for many plants. A layer of snow also protects by hiding many green plants from the voracious appetites of deer. On the other hand, shrubs and trees may suffer under these same circumstances. It's not uncommon to find a **browse line** on shrubs and small trees where deer have eaten everything up to the highest level they can reach.

Snow of Many Types

Ice crystals, sometimes called **snow crystals**, are almost all six-sided, but they come in a great variety of shapes—needles, columns, plates, stars, and delicately branched stars (dendrites), to name a few.

Snow grains are small, soft, white crystals of ice that fall to the ground in small amounts, somewhat like a frozen form of drizzle.

Snowflakes are hexagonally shaped conglomerations of many ice crystals.

Snow pellets or **graupel** are actually snowflakes that acquire frozen droplets of water during their fall to the ground. Sometimes called soft hail, they are crunchy underfoot.

Snowballs in History

Some accounts have it that the American Revolution began with a barrage of snowballs. A group of Bostonians, it is said, pelted British troops with rocks and snowballs on March 5, 1770, in Boston. This provoked the Redcoats into opening fire on the locals, resulting in the Boston Massacre.

Photo: Lloyd and Mary McCarthy

Into the Wild: Kane County

Johnson's Mound Forest Preserve

At a Glance

THE SCENE Wooded mound rises 50 feet above savanna and grasslands

HIGHLIGHTS Glacial kame (highest point in county), quality upland forest with spectacular spring wildflowers, sledding hill

STATS 743 acres, picnic areas, foot trails, water fountain, restrooms

BEHIND THE SCENES Ancient site of Native American treaties

GETTING THERE At 41W600 Hughes Rd in Elburn, about 1 mile west of Fabyan Pkwy. Entrance on north side of road

THE HIGHEST POINT IN KANE COUNTY is a natural feature. Unlike some of the other landfill high points in the Chicago area, Johnson's Mound is a kame, which is a glacial hill of gravel and sand. It was deposited 10,000 years ago by a retreating glacier, leaving a 50-foot-high hill in the surrounding rolling prairie landscape. The preserve also includes a savanna restoration, a large grassland, a small fen, and Blackberry Creek.

The only high point for miles around, Johnson's Mound was a meeting place, notably for an Indian treaty signing. The place is marked by the famous Shabbona Elm tree. Hundreds of years old and named for Chief Shabbona, a Pottawatomie chief, the tree grew to an enormous 36 inches in diameter before Dutch elm disease claimed it in 1972.

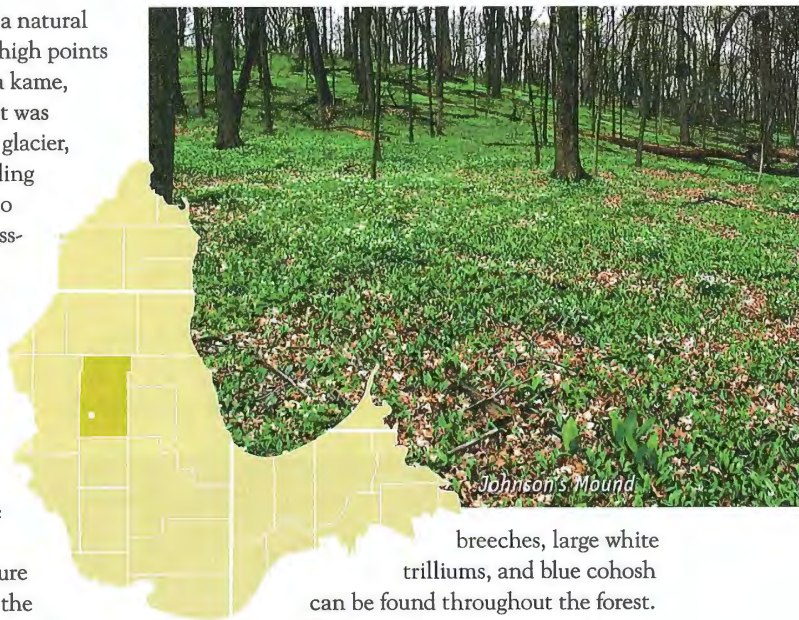
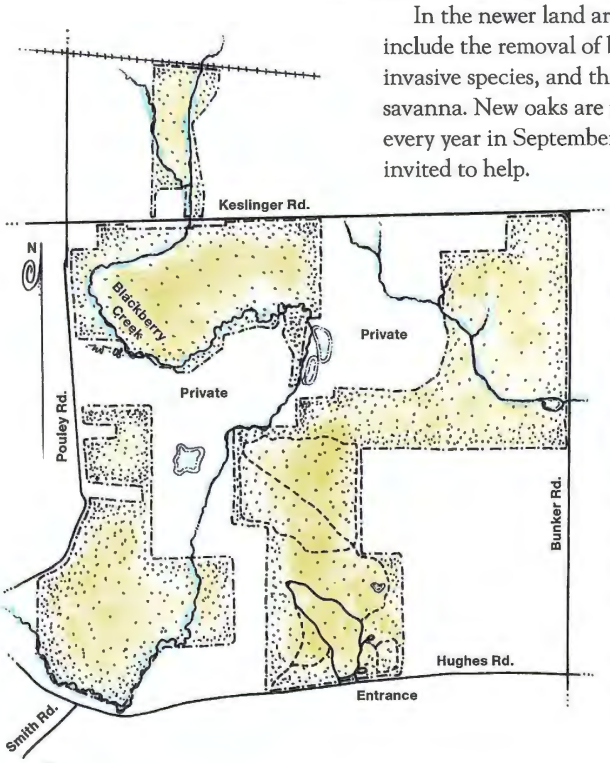


Photo: Richard Witkiewicz

Prior to European settlement, this feature was a "bald" prairie kame. Fires driven by the westerly prevailing winds suppressed the growth of most trees. The forest grew as European settlers arrived in the 1840s and suppressed the natural fires. The Johnsons for whom the preserve is named once hosted Abraham Lincoln in their home.

Johnson's Mound was one of the first three forest preserves in Kane County. The 97-acre parcel containing the kame was first acquired in 1927 and is an Illinois Nature Preserve. Recently, the preserve has grown to 743 acres.

In the newer land areas, restoration projects include the removal of black locust and other invasive species, and the restoration of the savanna. New oaks are planted in the savanna every year in September and the public is invited to help.



The mixed hardwood forest is primarily sugar maple, white ash, slippery elm, and basswood. Bur and white oaks grow on the drier west and southwest slope. The understory includes ironwood, blue ash, and hazelnut. Woodland forbs grow richly and include shooting stars and violet wood sorrel where the canopy opens on the western slopes. Dutchman's breeches, large white trilliums, and blue cohosh can be found throughout the forest.

The upland forests attract warblers, wrens, and woodpeckers. Tufted titmice and barred owls are year-round residents. Swainson's hawks nested here as recently as 14 years ago. Winter raptors hunt in the nearby fields. In winter, the road leading to the top of the kame is unplowed and closed to vehicles, making a walk up the road an adventure in animal tracking. Mammals known to live here include coyote, red fox, chipmunk, and white-tailed deer.

A paved road loops around the kame to a stone picnic pavilion at the summit. Other walking paths wind down through the preserve. A cabin is available for small groups. The sledding hill with warming house is very popular on snowy winter days and the quiet woods and fields are ideal for snowshoeing, hiking, birding, and animal tracking. Maple sugaring happens the second weekend in March.

The preserve is open from 8 a.m. to sunset. For more information, call (630) 232-5980.

—Jodi Zamirowski

Photo: Gerald D. Tang

Into the Wild: Cook County

McClaughry Spring Woods

TAKE A HIKE THROUGH MCCLAUGHRY SPRING WOODS and you might feel as if you've discovered a bit of Wisconsin tucked away in the southwestern suburbs. Head down the trail and you'll soon feel far away amid the densely wooded ridges and ravines of this scenic 250-acre forest preserve in Palos Park.

McClaughry Spring Woods is connected to a larger network of Palos Forest Preserves, and before the construction of the Cal-Sag Channel, the northern section of the site was part of the larger Saganashkee Wetland. The area features a 100-foot moraine slope and a stream that winds through shady ravines. It's also a great place to spot a variety of migratory and resident bird species.

From the parking lot, follow the gravel trail to a bridge crossing the lovely meandering stream. The trail continues up a fairly steep hill and into a stretch of oak woodlands. This trail is great for hiking, and is open for bicycling, horseback riding, and cross-country skiing. However, the hilly sections can be difficult to negotiate if the ground is icy, and could be challenging on skis. If you are on a bike or on horseback, be sure to stay on the wide multipurpose Sag Valley trail to avoid damaging plants or contributing to erosion along the creek.

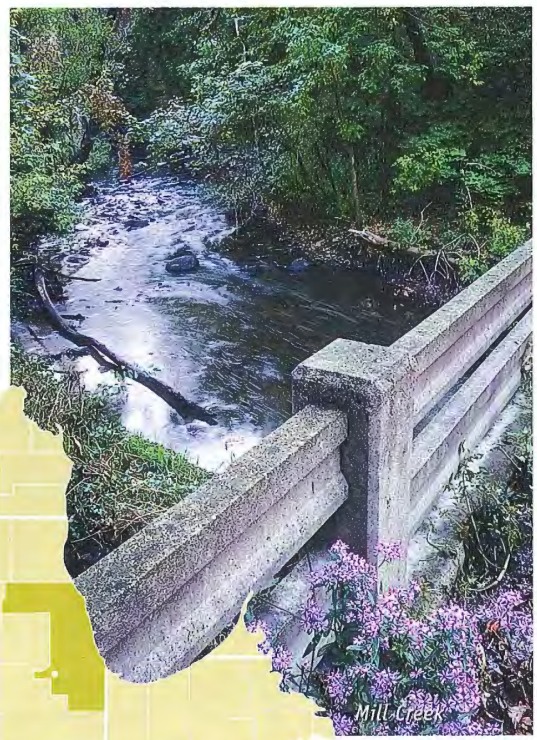


Photo: Richard Witkiewicz

All along the trail you'll see majestic old trees, including large oaks, walnuts, and sycamores. When the trees are bare in the winter, you'll be able to see the top of the moraine slope and other details of the topography that are concealed by foliage the rest of the year. As you explore, watch for nuthatches and brown creepers flitting up and down the trunks of trees. Volunteer steward Diana Krug says she has seen signs of great horned owls and has spotted the tail of a fox as it slipped away into the brush. She has even heard on occasion the lonesome call of coyotes.


Giant sycamore

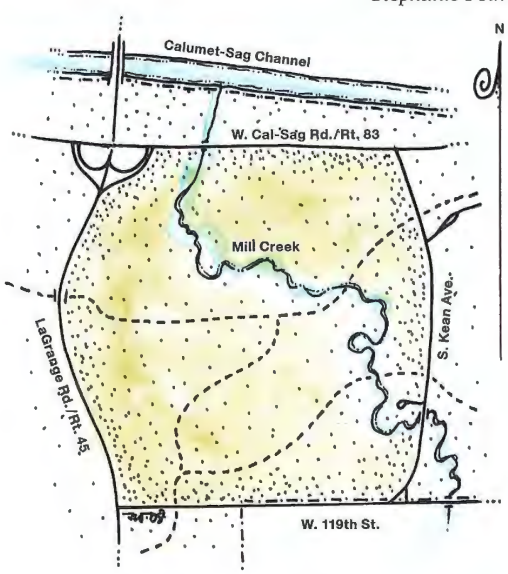
Photo: Jack Shouba

You'll also see restoration work underway. Volunteers have been working since 1999 to pull garlic mustard and remove invasive shrubs including honeysuckle, buckthorn, and barberry. Krug says the volunteers are looking forward to seeing native vegetation return to the areas they've been working to restore.

Visit the area in the spring, and you can expect to see toothwort, spring beauty, marsh marigold, May apple, Virginia bluebells, trillium, and woodland phlox. Head to the portion of the preserve north of the moraine slope, and you'll discover a prairie habitat that features plants such as big bluestem, blazing star, and yellow coneflower.

Exploring McClaughry Spring Woods can be a great escape at any time of year, and with its striking hills and ravines, it makes for a magical winter destination. If you still feel like exploring after your hike in this preserve, there are hundreds more acres of Palos Preserves to discover nearby.

—Stephanie Folk



Maps: Lynda Wallis

At a Glance

THE SCENE Scenic creek meanders through hilly morainal landscape

HIGHLIGHTS 100-foot moraine slope with ridges and ravines

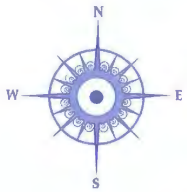
STATS 250-acre section of the Palos forest preserves

BEHIND THE SCENES Volunteers are working to remove invasive plants

GETTING THERE Take I-55 to LaGrange Rd. Go south on LaGrange to Rt. 83. Go east on 83 and take the first right onto Kean Ave. Parking lot is on right, just past entrance to Palos Park Woods-North parking lot

Richard Bong State Recreation Area

by Sheryl DeVore



HUNKERED DOWN IN GRASSY FIELDS so no one can see them, the creatures wait to rise. Finally, when barely a hint of daylight remains, one of them decides it's time. It lifts into the air, appearing like a large moth, flapping its wings as it flies just above the horizon searching for voles.

This is what nature lovers come to see in winter at the 4,515-acre Richard Bong State Recreation Area in southeastern Wisconsin—the emergence of short-eared owls at dusk. However, there's so much more to experience in every season at this multi-use area named after America's most distinguished fighter pilot, Richard Ira Bong.


Bur oak at Bong

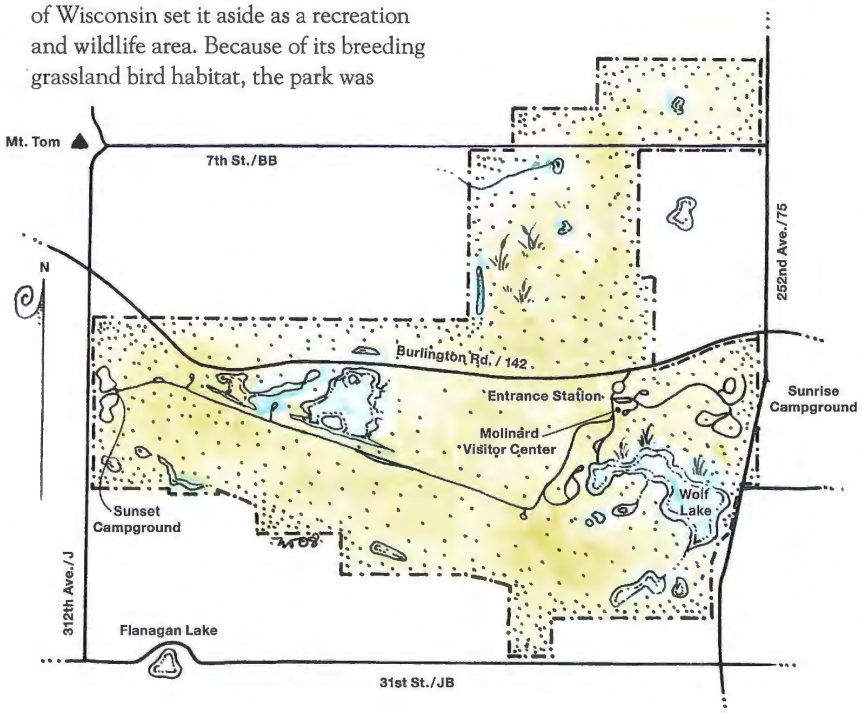
About 1,200 acres contain old fields, mostly the remainder of a scrapped federal project to build a jet fighter-interceptor base. The rest of the area holds remnant prairie, sedge meadows, oak savannas, wetlands, and a manmade lake. The park was almost developed into an industrial complex, but in 1974, the state of Wisconsin set it aside as a recreation and wildlife area. Because of its breeding grassland bird habitat, the park was designated in 2005 as an Important Bird Area.

Some 235 bird species call the recreation area home for at least part of the year. Park naturalist Beth Goeppinger loves winter there—and admits her favorite activity is driving the main road along the Special Use Area looking for owls, rough-legged hawks, and northern harriers. These raptors breed across Canada, and retreat to the Midwest for winter. Northern shrikes also come from the north and set up territories in shrubby grasslands in winter, where they cache voles in trees for later consumption.

Parts of the Special Use Area are used, mostly in the warmer months, for dog trial runs, all-terrain vehicles, and model airplane flying. Hunting is allowed on the property at certain times of the year. Snowmobilers also park their vehicles in the recreation area's lots, but Goeppinger says they are not allowed on the property. "They use the county trails around the park," she says. "They don't disturb the short-eared owls, and the ATVs have to be out by sunset."

Those wanting peace and quiet should take to the trails, which wind through grassland, woodland, wetlands, and shrublands. "We see bluebirds, waxwings, yellow-rumped warblers, and robins all winter," says Goeppinger. "And the bur oaks are so spectacular. To see them in winter without their leaves, stretching to the sky is so amazing."

Come spring, the ephemeral wildflowers get their day in the sun. A walk along the Blue Trail in May is a feast for the eyes, with colorful migratory birds flitting in the trees, and hepatica, shooting star,



Map: Lynda Wallis

Photo: John Zwiebel

columbine, wild leek, wild ginger, and prairie trillium blooming below.

Five hundred acres of grassland are protected for breeding birds, and no one can enter that space from May 1 through July 15. But you can see and hear bobolinks everywhere, just by driving slowly along the main road. Eastern meadowlarks are plentiful, giving their five-syllable melancholy song through spring and summer. And if you're lucky, you'll even hear the wolf-whistle call of the upland sandpiper as it does its sky dance to attract females.

In July, the prairie is in bloom with coneflower, black-eyed Susan, wild bergamot, compass plant, and other grassland natives. To keep the prairie forbs and grasses growing and the breeding birds happy, land managers perform controlled burns at least once every three years in 13 designated areas.

Waterfowl pause to rest and feed in the wetlands in spring and fall; sandhill cranes roost, up to 500 at one time, in the wetlands at night in early autumn.

Visit bongnaturalistassociation.org or call (262) 878-5600 for more information.

Photo: Beth Goeppinger

Daytripping

Just a few miles west of the state recreation area off Highway 142 is **Aeppel Treow Winery** (262) 878-5354, which offers tastes of apple and pear wines and ciders. The fruit to make the beverages comes from the next-door sister operation, **Brighton Woods Apple Orchard,** (262) 878-3000. The nearest town, about six miles west, is historic Burlington where you can visit antique shops and sample chocolate at the **Chocolate Museum,** 113 E. Chestnut, (262) 763-6044. **The Spinning Top and Yo Yo Museum** on Highway 36 gives you a chance to remember your favorite toys and games from childhood. Call (262) 763-3946.

Wetland refuge

Foraging

Plenty of good eateries are available in Burlington. There's **Fred's World's Best Burgers,** (262) 763-8370, which is reportedly a must-visit when in town. Up for some ghost stories? **Chances,** housed in an 1843 historic building, is rumored to have ghosts (262) 534-2772, and the waitresses will tell you all about them. **Sheila Mae's Town Fryer,** (262) 763-9940, has been operating for more than 50 years. **Cottonpicker Restaurant** and lodge, (262) 534-5151, features certified Angus beef and is tucked in a quiet, country setting.

Roaming

In winter, you can spend a whole day at the recreation area cross-country skiing, hiking, and snowshoeing. When the snow is gone, get out your hiking shoes and bicycle gear. One of the nicest prairies to see by foot is behind the EF group campsites at the Sunrise Campground. Though closed in winter, in other seasons visitors can walk the one-mile **Vista Nature Trail.** It's isolated from the rest of the park and is the least used and most peaceful. For information about all the trails in the park, visit them online at bongnaturalistassociation.org/trail_descriptions.htm.

Events

Bird hikes are offered year-round at Richard Bong Recreation Area. A Crane Watch is featured in early October.

In November, visitors can attend a short-eared owl program, and in January, visitors go prowling for great horned owls at night. Call the park at (262) 878-5600 for exact dates.

The town of Burlington has lots of events including the **Apple Holler Apple Pickin' and Scarecrow Festival** in October. For more information, call (262) 763-6044.

Short-eared owl

Photo: Rob Curtis

Bedding Down

Bong Recreation Area campsites are open from early March through mid-December. Call (262) 878-5600 to reserve your spot. A very nice bed and breakfast near Burlington is **Hillcrest Inn,** 540 Storle Avenue, (800) 313-9030. In town, there's the **AmericInn Motel of Burlington,** 2709 South Browns Lake Drive, (262) 534-2125.

At a Glance

THE SCENE Old field, remnant prairie, sedge meadow, oak savanna, wetlands, and a manmade lake

HIGHLIGHTS Wintering owls, harriers, and shrikes; wildflowers; breeding grassland birds

STATS 4,515 acres

BEHIND THE SCENES At dusk in late September and October, sandhill cranes roost in the wetlands. Short-eared owls ply the fields at dusk in late fall and early winter

GETTING THERE From I-94/41 in southeastern Wisconsin, take exit 340 to Burlington. Merge onto 120th Ave, then turn left onto Rte 142 west. Follow 142 to park. Entrance is on left. A parking sticker is required for entry: $7 per day for Wisconsin residents; $10 for others

Want to know more?

For more information and links to all of the natural and cultural destinations mentioned here, please visit us at chicagowildernessmag.org/issues/winter2009/weekendexplorer.html.

Into the Wild: DuPage County, IL

Winfield Mounds

At a Glance

THE SCENE
Oak-hickory savanna, prairie, and floodplain along DuPage River

HIGHLIGHTS
Prehistoric burial mounds, good birding, Geneva spur of the Illinois Prairie Path

STATS
360 acres, 1 mile of trails, 3 mounds

BEHIND THE SCENES
Mounds have been excavated twice

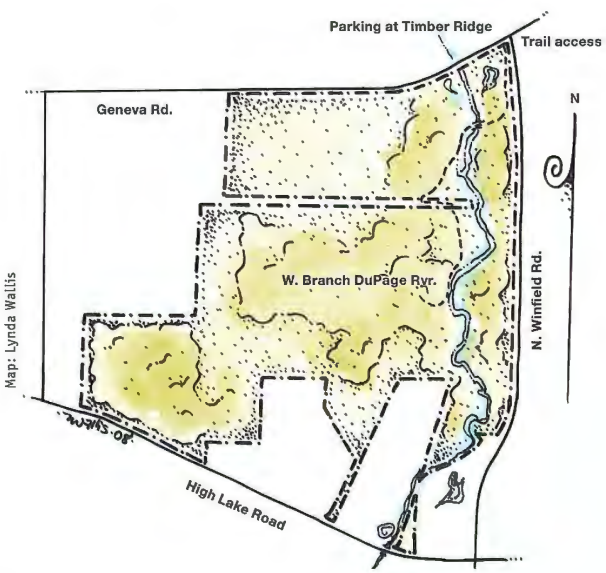
GETTING THERE
Take I-88 to Winfield Rd and go north 6 miles to intersection of Winfield and Geneva Rds. Parking along Winfield, southwest corner of intersection

AMID THE CONGESTION AND SPRAWL OF DUPAGE COUNTY, it's easy to forget about our region's early residents. But there is one place where one can glimpse that distant human past. At Winfield Mounds Forest Preserve, on the western side of the county, are three prehistoric burial mounds near the site of an ancient village. Here, along a bluff about 40 feet above the west branch of the DuPage River, hunter-gatherers first made their homes more than 2,000 years ago.

The burial mounds blend in with nature.

The river that drew those human inhabitants also serves as the centerpiece of this preserve, which is home to a variety of flora and fauna. It is an important wildlife corridor in a greenbelt that extends north to the Timber Ridge preserve and Kline Creek Farm and south to West DuPage Woods, according to Scott Kobal, ecologist with the Forest Preserve District of DuPage County.

Trails lead hikers through varied landscapes reflecting history and local events. The oak plantings set in rows along Winfield Road were part of the district's 1970s-era reforestation efforts. Where the trail crosses the river, a large bottomland with bent foliage shows evidence of September's floods. West of the river, the trail winds through a prairie of head-high big bluestem and Indian grass and leads into an oak-hickory savanna. Hikers would do well to wear a hat in autumn when the shagbark hickories shed their harvest with a hail of clattering nuts. The area is popular with birders looking for waterfowl, seasonal migrants such as warblers, resident woodpeckers, and the Cooper's hawks that hunt there.



Map: Lynda Wallis

The site's three dome-shaped mounds are the only known prehistoric burial sites in the county. Arranged in a triangular pattern, they rest in a bucolic, wooded area. The area was never farmed, and, according to forest preserve naturalist Jack MacRae, still looks much like it must have in prehistoric times. The site is far from undisturbed, though. Vandals trashed the mounds in the early part of the 20th century; later excavations by archaeologists also dismantled some of the mounds. (They turned up only shards of pottery and a single burial bundle that disintegrated upon disinterment.)

Researchers have determined that there were two occupations of hunter-gatherers. The first was during the Middle Woodland Period, dating from about 50 BC to 400 AD. The second was the Late Woodland Period, dating from 800 AD to at least 1000 AD, which is the era when the mounds were constructed.

Visitors hoping for a spectacular view, though, might be disappointed. The three mounds, which are marked by a sign, are smallish humps and hard to make out, and the village site is not marked at all. That's why MacRae conducts periodic hikes to the site, a happy task, he says, because "this is one of my favorite places in DuPage County."

For a schedule of hikes to Winfield Mounds, visit dupageforest.com or call (630) 933-7200.

—LeAnn Spencer

Into the Wild: Winter 2009

Natural Events

Here's what's debuting on nature's stage in Chicago Wilderness *by Jack MacRae*

Early Winter

DIETING DEER Whitetail bucks and does substantially reduce their food intake at the start of winter. Being in rut, they've got other things on their mind. Despite the fact that they need dramatically more energy to stay warm in cold weather, deer eat little during mating season. They will browse on current annual growth of woody twigs, but more important to their survival, deer tap into a reserve of fat they grew while eating high-calorie acorns in the fall. By the time new vegetation appears in spring, white-tailed deer may have lost 20 percent of their weight.

Photo: Dave Jagodzinski

Sparse browsing

Photo: Forest Preserve District of DuPage County

EMPTY NESTERS Early winter is a great time to take a visual inventory of abandoned bird nests in your front yard, back yard, and all your neighbor's yards. The trees have few leaves to obstruct your view, and the snow and blustery winds of midwinter haven't taken their toll yet on the stick and mud structures. It's common to find the nests of catbirds, goldfinch, cardinals, and blue jays close to houses. You may be surprised to see where the new generation of birds were hatched and fledged this past year.

Middle Winter

LITTLE FOXES Glen Ellyn foxes mate in January. Following a gestation period of 51 days, the females give birth to their kits (also called pups) in March. Their homes are secretive; the well-concealed entrance can be smaller than a 16-inch softball. The eternally cautious female will typically move her family to new dens several times over the next few weeks. This practice is fraught with danger, but it is one that fox moms have been doing forever. Last March, a two-week-old pup was rescued from a west-suburban driveway where it had been left behind. Fortunately it was located—hungry, frightened, suffering from mange and conjunctivitis—and brought to a fox doctor for treatment. The little fox recovered nicely and was placed with a nice fox family in town.

STRONG GRASS Of the many, many plant species that live in our region, only one—marram grass—can withstand the winter winds that whip across exposed sand dunes. The extensive system of tuberous roots grips the shifting grains of sand and keeps the plant anchored despite the relentless winds that can cover or uncover a plant in hours. This cool plant actually thrives on being buried in sand, which stimulates the rhizomes to grow vertically toward the surface.

Late Winter

BIG BIRDS In the final weeks of winter, pileated woodpeckers are the pinnacle of avian elegance. Both male and female dress in basic black tie and tails with stylish white accents on the shoulder, neck, and under the wings. They both sport dashing scarlet crests. Their faces are striped horizontally, and he has wicked red lines extending back from his bill. I think they've got wild, crazy eyes. Local reports of pileateds are scarce, but appear to be on the increase.

Pileated woodpecker

Photo: Brian Tang

The Cook County Forest Preserves in both the upper and lower stretches of the Des Plaines River Valley have had reliable sightings in recent years. Top-notch photographer Brian Tang spotted a pair in the heart of the Palos Preserve and an individual in Palos Park Woods, North Grove #1. I know where I'm going to be looking this winter.

TOO CUTE The Ross' goose is one cute goose. The smallest North American goose, about the size of a mallard, adults are white with black wing tips. They have short necks, little pink bills, and small round heads with tiny black eyes. They're not common—Chicago Wilderness isn't in the path of their traditional migratory flyway—but they have been showing up in the region with increasing frequency. Last year in the first week of March, my co-workers Ron and Wendy and I took an early lunch to watch the five Ross' geese that had been reported from a Fermilab field. Unlike many of their goose brethren, Ross' geese are strict vegetarians.

Ross' goose with Canada goose

Photo: Rob Curtis

Red Fox: crafting its niche

Photo: Dan Walters/AKM Images, Inc.

As the human population grows and the Chicago area's landscape continues to transform, the red fox (*Vulpes vulpes*) is one species that has learned to adapt and survive. The phrase "sly as a fox" came from the accurate perception of the fox as crafty and intelligent, and it's a trait that has paid off for the species. The fox's ability to withstand habitat loss, predation, and disease with minimal population decline is impressive.

Although its bushy red tail gives the illusion of size, the red fox, the largest of all true foxes, is actually about the size of a housecat. Red foxes are significantly smaller than their canid relatives and frequent neighbors, the coyotes. They can vary in color from yellowish-red to silver, but most often have a deep reddish coat, white belly, black lower legs, and white or black tip of the tail. Mature foxes have yellow eyes and dark brown or black noses.

It should be no surprise that the red fox adapts well to a changing environment—it is the most widely distributed carnivore in the world. Red foxes are found throughout most of North America, Europe, Asia, and northern Africa. They were introduced to Australia, where they're considered a problem invasive species. Their habitats include forest, prairie, desert, mountains, farmland, and urban areas, from sea level to high elevations. Their widespread population is in no small part due to their adaptability as omnivores, eating everything from small rodents to plants to insects.

But some express concern for the red fox's long-term welfare. "Having grown up in DuPage County, I'm certain the red fox used to be more common," says Dan Thompson, ecologist for the Forest Preserve District of DuPage County. "But with human development and changes to the landscape, I'm not seeing them nearly as often in the forest preserves." In DuPage County, for example, 75 percent of farmland has vanished over the last three decades, leaving many animals with fewer places to go. The red fox, however, has readily moved to urban and suburban areas, denning under buildings and foraging along roadsides and railroad tracks.

A 1998 study by the Forest Preserve District of DuPage County's Willowbrook Wildlife Center found that coyotes and red foxes seldom occupy the same territory. This may be due to the fact that coyotes often kill and drive out foxes from their territory because they compete for the same resources. The two also prefer different travel corridors, foxes often taking to the railways while coyotes more often opt for waterways.

As coyotes move into what traditionally have been red fox habitats, the foxes are taking up suburban living. Because of their smaller size and solitary nature, they are capable of surviving in areas that can't sustain large numbers of coyotes. As a result, some people are getting their first sightings of wild red foxes in their neighborhoods.

At Willowbrook Wildlife Center, most people calling about neighborhood fox sightings are concerned about their own safety or the safety of children and pets. In fact, foxes are quite fearful of people and will avoid interaction if at all possible. Humans are their most lethal predator—80 percent of young foxes die before adulthood, mostly from cars and hunters. They are not considered to be a significant source of disease.

If a fox has moved into your yard and you have questions, call the Willowbrook Wildlife Center at (630) 942-6200 for advice. There is little need for concern, though. "They've been living amongst us for so long, and how many have been peaceful encounters?" asks Thompson. "Nearly all of them."

Indeed, seeing a red fox, especially in its natural habitat, is a great reason to get excited.

—Jennifer Hardy

Red foxes work out their differences

Photo: Rob Curtis

Greg Rajsky: heavy metal botanist

Greg Rajsky's professional titles—vice president of a Wauconda association management company, where he doubles as president of the Aluminum Anodizer Council and executive director for the Extrusion Technology Foundation—fade to the background when he talks about another: natural areas steward.

With long, neatly cropped hair that shows just a hint of grey, the soft-spoken but self-assured Rajsky (pronounced "Rice-key"), 52, describes himself as "an assemblage of predilections": pacifist, Harley rider, botanist, executive, writer, educator, vegetarian. Born in Hinsdale but now a Woodstock resident, Rajsky serves as a volunteer habitat steward in both counties: at Lone Oak Fen in McHenry County and at Bluff Savanna, part of Waterfall Glen Forest Preserve, in DuPage. His eyes glisten with excitement as he describes his sites and his work there, especially that of identifying and monitoring plant species.

Though he has no formal academic training in environmental sciences, that hasn't stopped Rajsky from developing an encyclopedic knowledge of plants and their names, both scientific and common. He collects botanical data on woods and grasslands for the Chicago Wilderness Land Audits, and leads plant identification walks to help other plant monitors sharpen their skills, often arriving by "chopper" with engine revving.

His e-mail name, "quirkaceae," is both a testament to his eclectic passions and a play on one of his favorite tree genera, the *Quercus*, or oak. One of Rajsky's many roles is as an "Oak Keeper" for the Land Conservancy of McHenry County's Project Quercus. Along with other volunteers, he's gathering data on the county's privately owned oak woodlands. By studying historical records and comparing them to present-day growth patterns, the group has already determined that the area has lost 87 percent of its oak forest since 1830. Project Quercus is now working with landowners to preserve the remaining oaks and ensure that there are new generations.

Rajsky's lifelong passion for nature found its current expression in 1990 when, deciding to "get his hands dirty," he attended a stewardship seminar. He remembers hearing stump speeches—delivered on top of actual tree stumps—by environmental advocates such as Stephen Packard, on the effectiveness of and need for stewards. He was hooked.

Photo: WEG

At Lone Oak Fen

Rajsky's management skills have stood him in good stead as an organizer for large events such as the Chicago Wilderness Wild Things conference. He co-chaired the program committee in 2005, the first conference, and in 2007. That year he also presented a session on "ecological anachronisms," plants that have evolved in the presence of some pollinating or seed-dispersing animal that has since disappeared.

Rajsky wants to use the next Wild Things conference in February as a springboard to communicate the importance of environmental education. He also wants to help faith-based organizations become more involved in the natural world. Nature and the outdoors help nourish divine connections, he says, and all facets of religion could benefit from more outdoor experiences.

Out in the field, it's easy to tell that nature has become second nature to Rajsky. When asked how he can possibly remember so many scientific plant names, he first looks a bit puzzled, and then replies: "They are my friends. How could I not remember the names of my friends?"

—*David Rigby*

The Secret Garden

After years of facing down gangs, lead contamination, apathy, and even firebombs, Eden Place Nature Center keeps spreading good things to Fuller Park. But this restored green space isn't done growing yet.

by Katherine Millett

A surprising aroma of wildflowers rides a breeze through Fuller Park, the smallest neighborhood in Chicago. The spicy scent seems out of place as it hovers around barred and boarded windows, collapsed fences, and the rumble of freight trains and highway traffic that border this narrow strip of city on the South Side.

But if you follow the scent, you'll come to an assembly of concrete blocks at 44th Street and Stewart Avenue, abandoned after construction of the Dan Ryan Expressway. Newly painted with butterflies, flowers, and rainbows, these stone sentinels lead to the gates of Eden Place Nature Center.

On a warm September morning, about 30 children try to suppress their wiggles as they walk through the gates, into the green oasis. They are clearly thrilled by the sudden softness of grass underfoot, the yellow leaves falling from a grove of cottonwood trees, the wetland pond that reflects their faces. Before Eden Place, nature was for other people, in other places.

Dressed in the navy-blue skirts and trousers of school uniforms, the children are kindergartners and pre-kindergartners from Hendricks Elementary Community Academy, a school around the corner. They hop and skip behind Amelia Howard, who is one of their teachers.

"These children are my heart," says Amelia, her thoughtful face framed by a mane of salt-and-pepper hair. Amelia grew up in Fuller Park, moved away, but returned years later with her husband, Michael, to reclaim the family house, raise their five children, and rebuild the kind of community that had nurtured her as a child.

The Howards could have settled in a wealthier neighborhood. They met while working as portfolio analysts at a Loop brokerage firm. "Things started pulling us back," Amelia explains. "We were looking for farmland out of the city when life redirected us back to the house I grew up in. When I was young, it was a tightly knit neighborhood. Everybody raised each other's kids, corrected each other's kids."

Times changed, however. Churches that Amelia and her friends had walked to as children closed their doors. Neighbors moved away, and crime rates rose. "Michael and I came back to a new situation," she says. "There were gang problems, drug problems, a low-income atmosphere."

At first, Michael was not welcomed. He brought from the outside a vision of community and a degree of optimism that threatened the assumptions of local residents who had become frightened and isolated. The Howards hoped to fix up their house, help neighbors buy and repair the houses they were renting, and then, as a neighborhood, turn a debris-ridden vacant lot into a nature center. It was an ambitious plan.

"There were people who liked the status quo and did not like me bringing in new ideas and new people," Michael says. "One of my toughest problems was dealing with the naysayers. They kept saying, 'They're not going to let you have this.' They meant the gangs."

"THERE WERE PEOPLE WHO LIKED THE STATUS QUO AND DID NOT LIKE ME BRINGING IN NEW IDEAS AND NEW PEOPLE. ONE OF MY TOUGHEST PROBLEMS WAS DEALING WITH THE NAYSAYERS. THEY KEPT SAYING, 'THEY'RE NOT GOING TO LET YOU HAVE THIS.' THEY MEANT THE GANGS."

During the afternoon of June 22, 2000, Michael found a firebomb in his mailbox. It was badly made and did not explode. "I called the police," he says, "and they threw it in the trash can. I guess they weren't taking me seriously.

"But that night, at 2 a.m., gang members threw Molotov cocktails through the windows of my house. They threw another one on top, to burn the roof. Then they tried to kick in my door. But I'm a carpenter, and my door doesn't kick in. I had two fire extinguishers. I was fighting the fire inside with those, and the fire department came right away to fight the fire outside. We saved the house.

"The police were wonderful after that. They gave me 24-hour protection for a month, and the station chief became a very good friend. The police caught the three young men who did it, and they're in jail. We haven't had problems since."

Michael is, indeed, a carpenter. When the couple decided to leave the brokerage firm in 1982, Amelia became a teacher's aide, and Michael began a successful construction company based in Beverly-Morgan Park. He rehabbed houses all over Chicago using both the skills and the entrepreneurial spirit he had cultivated as a teenager growing up in Bronzeville.

"As a high-school kid," he says, "I'd go around to construction sites and offer to work for free if they'd train me. I was always a big kid, so they figured they could work me hard. What they didn't know was that I was also a quick learner. I worked with these Old World craftsmen and soaked up what they taught me." And so he became a practicing electrician, plumber, and drywaller, as well as a carpenter, who now teaches construction skills to young adults through his Southpoint Academy. (Along with volunteers from church groups and the neighborhood, Southpoint students have helped build Eden Place by hauling soil, designing and planting a savanna, wetland, and prairie, building a gazebo, and weaving a wigwam big enough to hold a large tribe of neighbors and schoolchildren.)

After fixing up their own house, the Howards turned their attention across the street. There lay a hopeless mess. The three-acre tract of land had been part of the Chicago stockyards, which closed in 1971. It saw continued abuse for the next 30 years, as midnight dumpers deposited truckloads of construction debris, much of it contaminated by lead paint and asbestos. In Fuller Park, according to a 1995 federal study, 20 percent of children under the age of six had elevated lead counts.

Undaunted, Michael and Amelia asked neighbors to help clean it up. They fired up a small barbecue to cook food and attract volunteers. The people came, and they worked hard to pile up bricks and trash along the edge of the property.

"The city saw us being so faithful they took pity on us," Michael says. "We made neat piles, and they hauled them away." Next, he borrowed a bulldozer for a week and "turned up the energy" to clear the rubble all the way down to ground level. When he found crumbling foundations under the cottonwoods, he borrowed a jackhammer to break up the concrete. It took five years, from 1996 to 2001, to remove 40 tons of concrete and debris from the site.

In the following years, Eden Place would partner with organizations such as The Nature Conservancy, North Park Village Nature Center, Audubon, Brookfield Zoo, the US Fish & Wildlife Service, Openlands, and others. The groups contributed services and materials to install the site's small ecosystems and develop the center's educational workshops.

Yet a serious financial crisis threatened the property shortly before Christmas in 2002. Eden Place was ready for planting, but nine lots were about to be lost at a tax sale. Owners of those lots had donated them to the Fuller Park Community Development Corporation, the umbrella organization for Eden Place, but they had not paid back taxes. In a flurry of activity, Michael contacted his friends in the environmental community, many of whom he had met through Chicago Wilderness. He furiously faxed financials, and his efforts were rewarded when the Gaylord and Dorothy Donnelley Foundation made an unusual discretionary grant to pay the taxes.

Photo: Katherine Millett

Eden Place offers Fuller Park families a place to get a little wild in a natural setting near home.

Eden Place is truly a community effort, but it hinges on the energy, learning, and charisma of the Howards. "If it weren't for Michael," says Shelly Hope, a teacher who travels from Humboldt Park to organize pumpkin festivals and other events, "these kids wouldn't know where vegetables come from."

Facing the children on that September morning, Michael raises a bullhorn to his mouth. "Today we're going to pick some of the tomatoes you planted last spring. What did we plant?" he calls out.

"Flowers!" The children answer.

"What else did we plant?" he asks again, laughing.

"Seeds!" they answer.

"What kind of seeds?"

"Tomato!"

"And what did we get?" he asks.

"Tomatoes!"

With a "Hut! Hut! Hut!" reminiscent of his three years in the Army, he leads the children to a fenced garden. Inside, each child picks a cherry tomato that grows among rows of pumpkins, eggplants, squash, and pole beans.

The Howards encourage the children and their parents to start gardens at home. By Michael's estimate, they've helped establish about 15 gardens in the community, while the nature center garden supplements the diets of about 25 people. "Especially in this economy," says Amelia, "there is so much economical value to growing your own vegetables. And they feel such pride when they plant a tomato in a pot, give it the love and nurturing it needs, and a tomato forms! It's a beautiful thing to watch."

Growing food is just one example of how use of the land has evolved with community participation. Early on, the Howards enlisted a group of neighbors to help design the landscape. Plans called for restoring native plants and the kind of terrain that existed for Native Americans.

But the group modified those plans on the advice of a neighbor. Walking down the alley one day, the woman asked what was going on. Mrs. Green, a member of the board of directors, told her about the prairie grasses and sedges. "Those are just *weeds*!" the woman said with disdain. "You need some pretty flowers for these city black people!" While the native habitats stayed, they were joined by a perennial bed and grand lawn.

Michael laughs and slaps his knee as he tells the story. It is one of many that illustrate cultural differences about environmental matters. "Changing attitudes is our biggest focus," he says. "We're here to be the doorway to nature for the South Side of Chicago."

Eden Place was featured in a Public Broadcasting Service documentary and book called *Edens Lost and Found* in 2006. At the time, Michael Howard said, "People think the environment is a white people thing, but I tell them it's a human being thing. We all breathe the same air, drink the same water, and eat the same food."

Michael Howard shows off a mantis

In the prairie with Amelia and Michael

The Eden Place wigwam

Pumpkin Fest

Photos, clockwise from top left: Eden Place, Katherine Millett, Eden Place, Katherine Millett

Photo: Katherine Millett

The nature center appears poised to begin a new chapter. With directors of the Fuller Park Community Development Corporation, the Howards are now raising money for a permanent structure to replace the construction trailer at the site. Designed by graduate students at the architecture school of the Illinois Institute of Technology, the project calls for two small buildings under a common roof. Michael proudly displays the students' model on a long table in the trailer. The building signals permanence and solidity, not to mention a practical staging area, with bathrooms and other facilities, for visitors and incoming field trips.

Eden Place also finds itself near the center of a growing regional and national children's education movement. Expanding on its successes with public schools and the local neighborhood, Eden Place has become a vital part of the Leave No Child Inside initiative, a cooperative effort launched by Chicago Wilderness in 2007 to reconnect children and nature. The Howards are key players in the campaign, planning programs for the summer.

Despite the steady use of Eden Place by school groups—and the popularity of occasional music festivals, where Michael may be heard singing ballads to his own guitar accompaniment—the Howards struggle to maintain adequate funding and a roster of reliable volunteers. Even their own children, who have helped out since the beginning, are moving on to college and the making of their own families. Their son, Troy, still helps, but as Michael fondly puts it, "We're losing our base."

He views it as a cultural disconnect. "A problem we have in this neighborhood," he says, "is that donating money and working as a volunteer just aren't the culture. People see me and they say, 'Mr. Howard, you don't need anything.' But I tell them the chickens need to eat, and the grass needs to be cut."

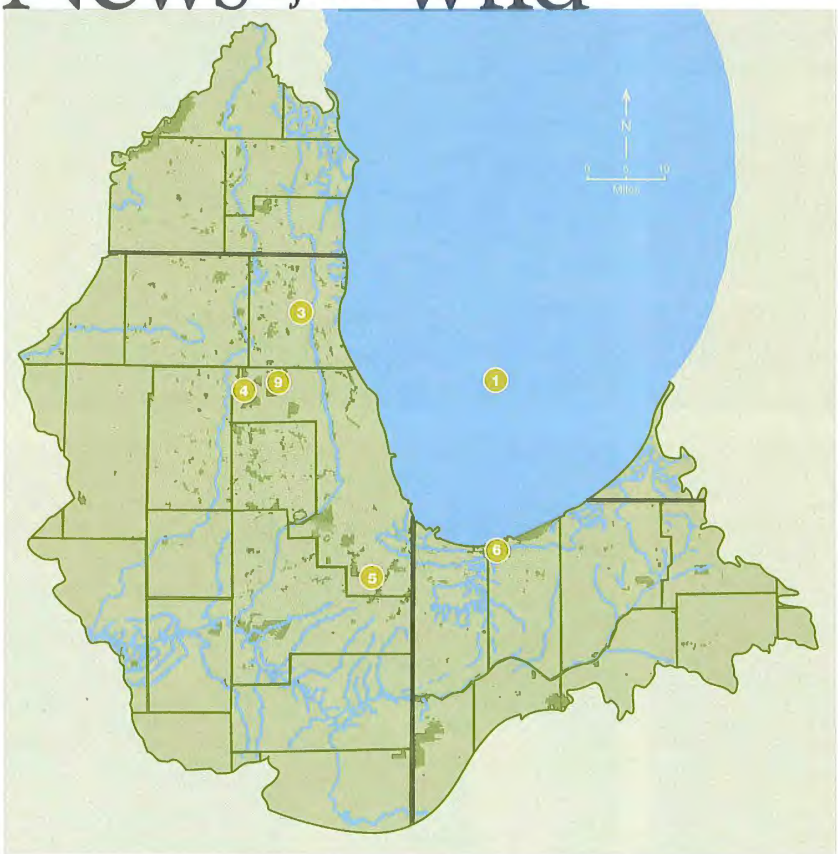
Stalwart supporters such as Hope feel confident that with more time and dedication, Eden Place will flourish. "Church groups help during the summer, and they work so hard he sometimes runs out of things for them to do, but we need volunteers from the neighborhood. Michael is the most hard-working man. He will never give up. "

And why would he? Eden Place has transformed children, adults, and families by connecting them with the natural world. It is trying to restore the kind of community that shaped Amelia. Such transformations may seem subtle and fleeting, but they can be profound.

"We started a Family Fun Fest," says Michael, "for people who had forgotten how to do something as simple as bring a picnic to the park, sit on the grass, and listen to music. We brought in kites to fly, and gunny sacks so they could have a sack race. I was making a little video of a man playing with his kids, and his wife was moved to tears. She said she'd never seen him play with his kids before." As Amelia says, it's a beautiful thing to watch.

To learn more about Eden Place, visit edenplacenaturecenter.com.
For more on Leave No Child Inside, visit kidsoutside.info.

News of the wild



1 Lake Michigan Water To Stay Put

The Great Lakes achieved a significant victory in October when President Bush signed the Great Lakes Compact into law. Designed to prevent the diversion of water from the Great Lakes to thirstier parts of the world, the Compact prevents remote states or countries from tapping into the lakes, their streams, or the groundwater of their drainage basins.

The measure capped years of work by many organizations and citizens, as each of the eight states and two Canadian provinces bordering the lakes first had to approve the measure.

"The passage of the Compact is a victory for the present generation and, even more important, for the generations of tomorrow," said Ted Beattie, president and CEO of Shedd Aquarium. "It will be extraordinarily gratifying to witness the ripple effect this historic water management agreement will have on tomorrow's leaders."

Great Lakes governors began considering new water protections a decade ago, after a proposal to ship lake water to Asia in tankers caused a public outcry.

—Elizabeth Latenser

2 Illinois Still Set to Close Parks

In response to massive public outcry against the planned closing of 11 Illinois state parks and 15 state historic sites due to budget shortfalls, the General Assembly took action in October. First "sweeping" $220 million from other state programs (including $20 million from conservation programs) into a "general revenue fund," they then passed a supplemental appropriations bill, SB 1103, which directs $2.1 million back to the Illinois Department of Natural Resources (IDNR) to keep state parks open. On November 20, Governor Blagojevich approved the $2.1 million for parks, but announced that only 4 of the 11 parks will remain open. The rest will close on November 30.

Illinois wildlife and open spaces face tough times regardless of the parks funding. The money swept from funds such as Conservation 2000, Fish & Wildlife Endowment, and the Illinois Habitat Endowment Trust means state and local plans to purchase and enhance wildlife habitat will go unfunded. Furthermore, an estimated $14.6 million in federal matching dollars will be lost.

Many conservation groups across Illinois have expressed their displeasure. Some urged the General Assembly to vote against the sweeps bill, fully knowing its impact upon the state parks.

The impending closing of state parks and historic sites are only one impact of budget cuts to the IDNR, which has lost a quarter of its staff since 2001. Even with the parks funding, services for education, land management, and outdoor recreation will be eliminated.

—Douglas Chien

3 Lake County Votes for Historic Land Funds

The election of Barack Obama wasn't the only historic vote in the Chicago area on November 4. In record numbers, voters in Lake County, Illinois, approved one of the largest open space referenda in the nation's history. Despite the country's economic woes, 66 percent of voters approved a bond issue that gives the Lake County Forest Preserves $148 million to buy land and $37 million to restore wildlife habitat, create trails, and provide more public access. Remarkably, residents won't see a tax increase because old bonds are being retired and new ones will simply replace them.

In its endorsement of the measure, the *Chicago Tribune* called for other counties to follow suit: "The preserves are our buffer zones, the quieter places that paradoxically let us escape without leaving....A fortunate alignment of depressed real estate values, low interest rates, and willing sellers makes this an ideal time for county forest districts to be growing their footprints. The only question here is why all Chicagoland counties aren't taking advantage of the same economic trends—talk about a buyer's market—to increase their holdings too."

The Lake County Forest Preserve District hopes to buy as many as 3,000 additional acres with the new funds. In the county that is home to more threatened and endangered species than any other in Illinois, passage of this referendum is especially good news.

"The people who live here really value open space," said forest preserve district president Bonnie Thomson Carter. "They know it's important to have somewhere peaceful to go, and refuges for our native plant and animal communities."

—Alison Carney Brown

4 Healy Prairie Gives Back

It's been 18 years since volunteers peeled Healy Road Prairie from its ancient gravel hilltop in Elgin and lugged it six miles away to a new home at Bluff Spring Fen Nature Preserve. Soils, plants, insects, and other small animals were carried off to a barren manmade hill in a brave effort to save the tiny prairie from the fate of gravel mining.

This past autumn, the prairie was finally healthy enough to pay it forward. In October, volunteers met at the relocated prairie to collect seed from its valuable genetic lineages. It was an historic moment, the culmination of years of loving care.

Initially, the prairie's survival was tenuous. During the first summer, the City of Elgin built an irrigation system to water the frail transplants. But as plants recovered, stewards and volunteers burned the prairie and it gradually blossomed with good health. All plant species survived the move, and the hill now blends seamlessly with the surrounding terrain. This fall, the prairie produced sufficient seed for volunteers to gather some for use at a nearby restoration site in need of ancient native stock.

The weather was raw, but spirits were bright. Volunteers from several nearby sites joined together: Bluff Spring Fen, Spring Creek Forest Preserve, Poplar Creek Prairie, Somme Prairie Grove, and the Citizens for Conservation sites. They gathered little bluestem, lead plant, coreopsis, rough blazing star, prairie cinquefoil, sky blue aster, and purple prairie clover. Though not especially rare species, the genes of all are irreplaceable. These species have grown for thousands of years in this locale, products of the microclimate and soils. At press time, other volunteers were preparing the seeds for sowing at Spring Creek Forest Preserve near Barrington Hills.

Everyone understood the significance of this event. Jim Voris, steward for Spring Creek Forest Preserve, summed it up best when he said, "their progeny will ripple down through history."

—Meredith Tucker

Seed-gathering at Bluff Spring Fen

Photo: Jasmine Scott

5 Rare Butterflies Settle In at Gensburg-Markham

With help from a picnic cooler and some potted plants, the Chicago area's rarest and possibly most spectacular butterfly—

the regal fritillary—is finally settling in at one of its former stomping grounds.

The reintroduced regal fritillaries appear to be doing well at Gensburg-Markham Prairie, in the south Chicago suburbs. At least that's what *Chicago Wilderness* photographer Thomas Bentley found when he photographed them over the summer. (See his photos at thomasbentley.com.)

Right now, though, in the dead of winter, the tiny regal caterpillars are lying dormant on the prairie ground, waiting for spring.

That the regals are getting established in their new home is highly encouraging to researchers Doug Taron, of the Peggy Notebaert Nature Museum, and Ron Panzer, of Northeastern Illinois University. The flashy insect disappeared from Gensburg-Markham Prairie in the late 1970s, an unintended victim of human encroachment. In late 2007, however, the biologists drove to a small prairie at Beaver Lake Nature Preserve, just over the border in Indiana, where the nearest population survives. With the blessing of the site's owner, The Nature Conservancy, they collected a handful of pregnant females and tucked them into a chilled picnic cooler for the ride back to the office. Once in the museum lab, the butterflies were shown to potted wooly blue violets (violets are the sole food of the regal fritillary caterpillar) and both were covered with a swath of cotton muslin fabric. Sure enough, the butterflies laid eggs, which hatched into caterpillars. Once they had formed cocoons, the butterflies rode in their picnic cooler to the high-quality Gensburg-Markham Prairie. There, the cocoons were affixed to wild plants.

While most butterflies lay eggs directly on their host plant, regals lay their eggs throughout the prairie in late fall. The newborn caterpillars overwinter, waiting to eat until spring, when the leaves of violets emerge.

—*Kelly McIntyre*

6 Dunes Buzzing Over New Bee Research

A recent study of bees in northwest Indiana reveals the importance of fire and open landscapes to this diverse group of animals.

Ralph Grundel, research ecologist with the U.S. Geological Survey, led a team of specialists in an examination of more than 160 native species of bees to see how they are affected by fire, changing habitat, and availability of nesting materials in and around the Indiana Dunes National Lakeshore.

The one-year survey was conducted in five habitats that varied in the amount of trees and shrubs they contained: grassland, savanna, woodland, scrubland, and forest. Grundel's team found that the number of bee species increased as the concentration of trees and shrubs in an area decreased—that is, more species favored the open habitats of grasslands and savannas. They also found that the number of species increased in sites that had been burned more frequently.

The researchers also investigated other factors affecting bees, such as availability of dead wood, an important nesting material. The study found that bee diversity increased in areas with greater amounts of dead wood.

Grundel also found that species richness in bee populations changed dramatically over short distances and changes

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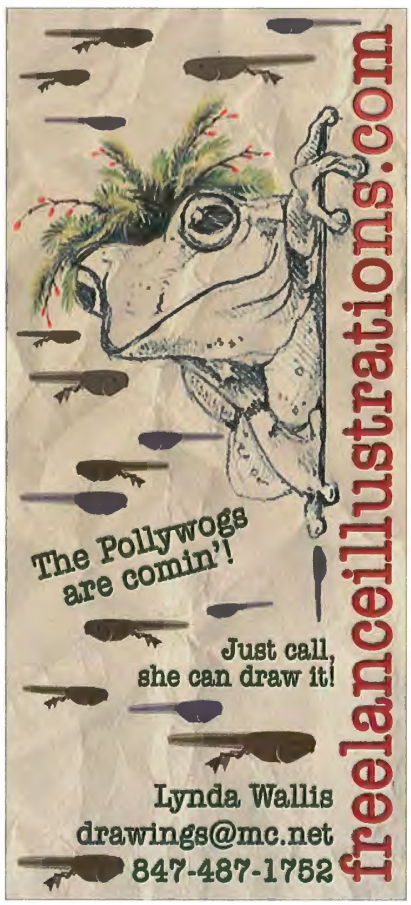

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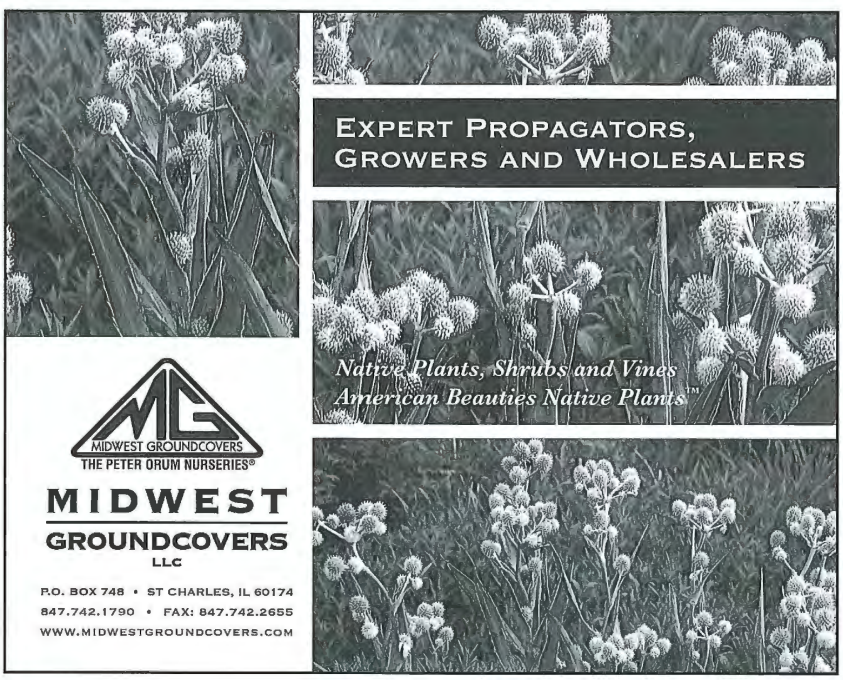
in the landscape, suggesting that habitat restoration in even small areas can make a big difference for bees.

Our native bees, most of which are solitary and docile, are not easy to study. One species in the study gathered pollen from a flower that opened only at night. Some species hadn't yet been named and described by science. And males of several species were collected for the first time ever. "Sometimes even the experts don't know how to identify some species," explains Grundel, who adds that while this is not unusual for insects, it's an added obstacle.

Grundel's team hopes to one day establish a nationwide study of bees to assess large-scale trends in native populations. Observed declines in commercial bee populations since the 1970s, as well as the recent emergence of Colony Collapse Disorder in colonies of the honeybee (a nonnative species), have heightened the need for monitoring of native bee populations, which also serve as important plant pollinators. Grundel is up to the task.

"Working with insects can be particularly interesting because the activities of insects are typically hidden from casual observation," says Grundel. "There's a lot going on. When you realize how much of nature is hidden from us, it becomes a privilege to obtain an insight few others enjoy."

—*Katie Chelminski*



7 September's Floods Point to Need for Wetlands

It began life as Tropical Depression Nine, a low-pressure system rotating away from the west coast of Africa. By the end, Hurricane Ike devastated the Texas coast and, along with its two brothers, Lowell and Gustav, dumped 13 inches of rain in parts of the Chicago region between September 13 and 14.

In Illinois, the Metropolitan Water Reclamation District opened gates and locks at Wilmette Harbor, the mouth of the Chicago River, and the Calumet River, allowing stormwater overflow to discharge into Lake Michigan. North and west of Chicago, the swollen DuPage, Fox, and Des Plaines Rivers all reached flood stage, shutting down roads and flooding homes. Rain pounded Indiana Dunes National Lakeshore, and water pouring from the Little Calumet River into Burns Ditch battered marinas. At Ogden Dunes in northwest Indiana, fast moving river runoff dumped sediment and debris on the beach.

While such rain events will always cause floods, saving open space along waterways can significantly reduce their extent, say environmental advocates.

Donald Hey, director of Wetlands Research, Inc., points out that artificial systems—canals, pipes, culverts, parking lots, buildings, and drains—aggravate flooding by forcing fast-moving water through erosion-prone passages. Instead of holding the water for the time it needs to soak into the ground, these systems move water off the land quickly. Hey says that restoring wetlands, prohibiting development in floodplains, and slowing water are the best ways to control floods.

Currently, excess nitrogen and phosphates flowing off the land cause catastrophic damage to aquatic systems. But wetlands planted on floodplains can remove these pollutants, pull carbon dioxide from the atmosphere, and clean and store rainwater.

Wetlands Research is proposing that industries and cities that discharge water purchase "nutrient removal credits" for the services wetlands provide. The money would be used for restoring millions acres of wetlands that have been lost. Hey believes that this "nutrient farming" is the future of flood control.

Hey looks to the future and sees a healthier landscape. "Picture in your

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mind these perpendicular structures, these weirs, going all across the river, blocking the water, holding it back, creating pools. Our streams would turn into a series of 'riffle, pool, riffle, pool' that would slow the water down. The result is cleaner water, less flood damage, and a better environment for humans."

—*Elizabeth Riotto*

8 Kids Bill Passes House

Kids, take notice! In September, the US House of Representatives passed HR 3036, the No Child Left Inside Act, with a large bipartisan majority. The bill seeks to authorize $100 million per year for five years to fund hands-on outdoor education for children, kindergarten through 12th grade. It will likely go to the Senate in January.

At the Chicago Wilderness Congress in November, Chicago Park District manager of outdoor and environmental education Peggy Stewart presented the Children's Outdoor Bill of Rights, listing the "top ten things children should do" to be happy and healthy. Not actual legislation, the list includes "Camp Under the Stars," "Catch and Release Fish, Frogs, and Insects," and "Discover Chicago Wilderness."

Read the full list at kidsoutside.info/billofrights.

9 Road Project Runs Into Cook County's Oldest Preserve

A proposal to widen a one-mile stretch of Quentin Road as it cuts through the Chicago area's oldest forest preserve is gaining attention in Cook County.

From its first acquisition in 1916, Deer Grove Forest Preserve near Palatine has

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grown into a beloved 1,800-acre haven that features an oak forest, rolling topography, and picturesque creeks. But now, according to Pete Jackson, a volunteer steward at the site, a proposed county road project designed to reduce traffic congestion is threatening to destroy trees and wetlands, pollute Salt Creek, and cause mortality for a suite of amphibians and reptiles that includes the rare Blanding's turtle.

The project calls for widening the road from two lanes to four, building a new bridge across Salt Creek, and adding an underpass for pedestrian, bicycle, and equestrian traffic as well as a bike trail along the road. The total cost is estimated at $7.5 million, with $3 million sought from federal funds.

Benjamin Cox, executive director of Friends of the Forest Preserves, says several modifications would reduce impacts to the preserve while still meeting project goals. His recommendations include building the trail on the other side of the road, building an overpass rather than an underpass, and using curbs and gutters or structures such as culverts, so reptiles and amphibians can safely cross the road. To date, the Highway Department has proposed no alternatives to its plan.

Cook County commissioners have given the plan preliminary approval, and are required to review and vote on it again. Commissioner Mike Quigley, who led opposition to the project, said, "This is an example of how the board is conflicted in its roles as county commissioners and forest preserve commissioners." In Cook County, as in Lake, the same individuals serve on both boards.

—Barbara Hill

10 Gray Wolf Back Under ESA

The population of gray wolves living in the western Great Lakes, which had been removed from the federal Endangered Species List in early 2007 following reintroduction successes, is once again under the list's protection.

After reviewing complaints from several groups, a US judge declared that the removal of the gray wolf "might have been based on a misinterpretation of the Endangered Species Act," according

Chicago Wilderness

Thank You for Your Support of the Autumn Benefit Dinner, November 11, 2008

All proceeds support the work of Chicago Wilderness to protect, restore, study and manage the natural ecosystems of the Chicago region, contribute to the conservation of global biodiversity, enrich local residents' quality of life and make conservation a part of our culture.

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In November, **Mayor Richard M. Daley** accepted the **Chicago Wilderness Quality of Life Award** on behalf of himself and Mrs. Maggie Daley.

The award recognizes extraordinary leadership in making our region a healthier and more sustainable place to live. Chicago Wilderness executive director **Melinda Pruett-Jones** and photographer **Mike MacDonald** presented the mayor with one of MacDonald's signature photos on canvas.

The award was part of a week that included the Chicago Wilderness Congress, a biennial gathering of the alliance. The day culminated with an address on climate change by renowned ecologist **Dr. Thomas Lovejoy**.

to Laura Ragan, regional endangered species listing coordinator with the US Fish & Wildlife Service.

The relisting means that states where gray wolves are established—Wisconsin, Michigan, and Minnesota—can, according to Ragan, "no longer implement…lethal control of problem wolves in Wisconsin and Michigan. Wolves in [those states] that are attacking domestic animals can no longer be killed by anyone. In Minnesota, wolves attacking domestic animals can be killed only by designated government agents."

The gray wolf was once a top predator of the Chicago region. One was found dead near the Chain O' Lakes in 2005, and others are suspected to have passed through undetected, likely from territories to the north.

—*Shelli Bruno*

For a listing of winter events, visit chicagowildernessmag.org/calendar.

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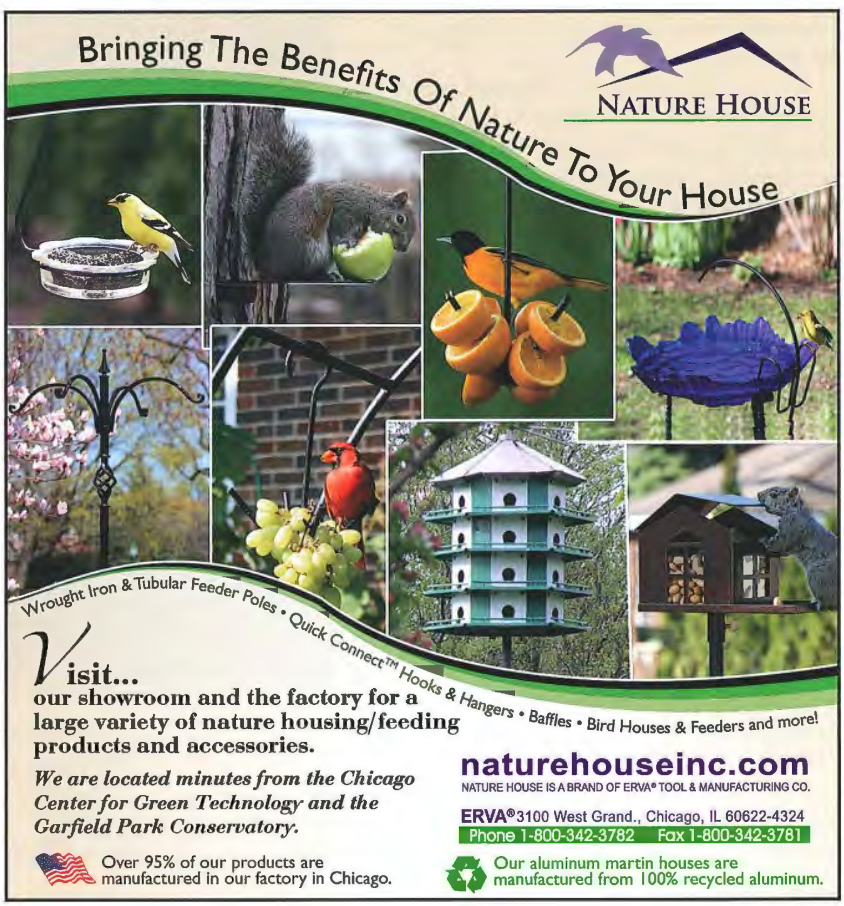
Thank you to the Chicago Wilderness Corporate Council for serving as the premier sponsor for the Chicago Wilderness Autumn Benefit. Such generosity furthers the Chicago Wilderness Corporate Council mission to bring the resources, skills, capabilities, and influence of its members to foster widespread awareness of the region's biodiversity and to develop broad-based support for its protection, restoration, and stewardship.



Physics, Biology, and Wealth

Here, one of the classic scenes of Chicago Wilderness is transformed by winter from a story of biology to one of physics. In times of warmth, last and next summer, this scene exults in rare plants and animals. Now, it is crystals and geology.

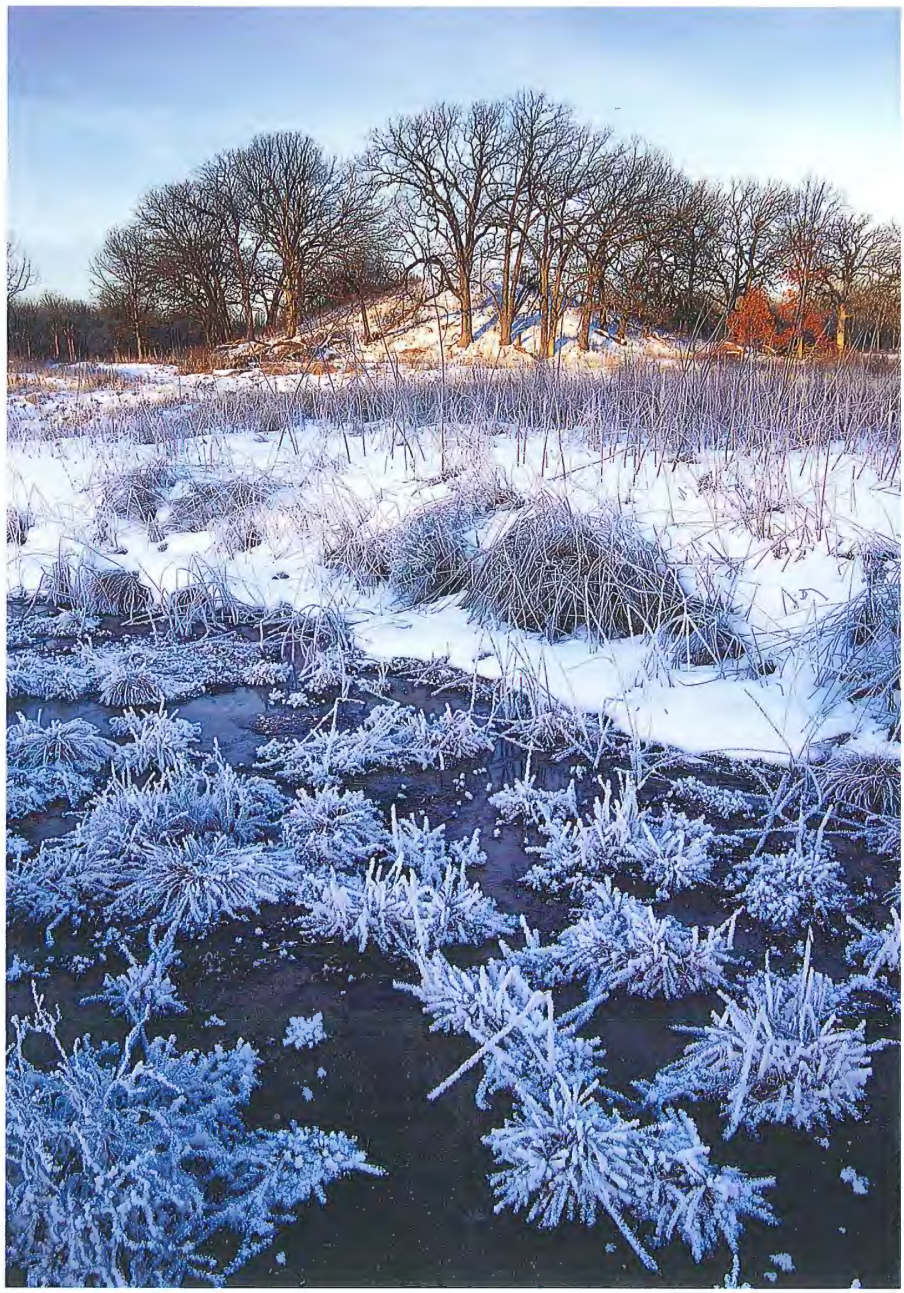
The spring, in the foreground, flows no matter how cold the season gets. Spires of ice radiate from the center of grass clumps, a phenomenon of this place. The tufted hair grass blooms each June in the flowing alkaline water, as cool then as it is now.

The bank behind the spring bursts forth throughout the growing season with rare orchids, lilies, gentians, and others. Among them thrive rare dragonflies, butterflies, and bees. Now, the scene waits, its dried grasses and herbs expecting the fires of spring, rare species secure in roots and burrows. This peaty area is the fen proper. Saturated with limey water, building up for more than ten millennia, peat takes the place of soil for fen plants.

In all, this photo shows six layers of rich ecosystem. The two above the fen are sedge meadow and prairie. Then come bur oaks, a collar around three sides of the hill, with rare woodland and savanna biology underneath. Red baneberry blooms in May. And then the hilltop is one of the most exquisite little hill prairies you might ever hope to see. Though ripped for years by rampaging vehicle recreationists with no one recognizing the richness being rent by tires, it's now protected. Grooved yellow flax, prairie smoke, and pale purple coneflower are among the treasures from the patches of original prairie that are gradually re-colonizing former vehicle scars.

Architecture of dark-barked oaks makes a visual statement that takes us back hundreds of years. But the hill itself goes back twelve thousand years to when the rapid waters of a river of glacial melt neatly piled this gravel in a conical hill. This kame, one of the distinctive hills of Chicago Wilderness, feeds the rainwaters of this age into the fens below.

I met a hiker on the trail. She said, "I never feel richer than when I walk here." For many of us, the physics, biologies, metaphors, and people of nature are among of the deepest wealths of our lives.



Photograph by Mike MacDonald/ChicagoNature.com. Words by Stephen Packard. Bluff Spring Fen protected by the Metropolitan Water Reclamation District of Greater Chicago, Forest Preserve District of Cook County, Bluff City Cemetery, Illinois Nature Preserves Commission, and Friends of the Fen. Find more at bluffspringfen.org.

Clockwise starting top left: Caño Negro Wildlife Refuge; Tortuguero Park Canal Cruise; White Faced Monkey; Keel Billed Toucan; Manuel Antonio Park; Rainforest Hike

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