# RAVINIA

*An Advocate for Community Resources*

Published by Friends of the Ravines (FOR)

Spring/Summer 2010


# Ravines and Birds:

## Global Connections

*by Jim McCormac*

The ravines of Columbus harbor an extraordinary diversity of life; these mini-canyons are biological hotspots in a sea of development. Their importance as refuges for flora and fauna is increasingly apparent as natural lands elsewhere in the region dwindle.

Brace yourself for an alarming statistic: according to data from the Ohio Department of Development (DOD), over 25% of Franklin County is "impervious surfaces," an ominous term referring to land that is paved over or has otherwise lost all of its natural features. More grim stats tumble from the deluge of DOD data. Fifty-five percent of Benjamin Franklin's namesake county is either agricultural or "open urban areas," neither of which is much more environmentally friendly than the local Mickey D's parking lot. Our county sprouts nearly 475,000 houses, and over one million members of *Homo sapiens* occupy these dwellings. That means that there is an average of 880 houses and 1,852 people wedged into every square mile.

There isn't much room left for wildlife. Today's conditions are a far cry from the days when the aforementioned Ben Franklin extolled the virtues of the Wild Turkey; a time when forests blanketed much of Ohio's capital city and its environs. Life then was far easier for the feathered crowd, especially our Neotropical birds (the globetrotting migrants that winter in the American tropics and return to northerly latitudes, such as Ohio, to breed.)

In the face of such environmental change, conservation of interurban habitats, such as our treasured ravines, becomes all the more important. Linear bands of greenery oriented on an east-west plane, these wooded gulches offer oases to tired migrants winging their way back from the Caribbean, Mexico, and Central America, or even South America.

Plenty of interesting birds breed in central Ohio's ravines, as well described by Rob Thorn in the Fall 2006/Winter 2007 issue of *Ravinia*. But the importance of relict habitats in heavily developed regions is not as widely acknowledged as it ought to be in relation to migratory bird conservation.

Take the Blackpoll Warbler. Males in breeding condition are striped in zebra-like finery, their black caps recalling a chickadee, and they do their hopping on feet of gold. Blackpolls are common migrants through Columbus, and many is the time that I've heard their high-pitched, lisping notes from high in the canopy of this or that ravine. But Blackpolls are strictly transients here, engaged in one of the most monumental migrations in the songbird world. After wintering in remote Brazilian forests, these sprites launch themselves northward towards breeding habitats in the northernmost spruce-fir forests of Canada. Some individuals probably travel over 6,000 miles—one way!

*continued on page 3*

*Blackpoll Warbler. Champion long-distance migrants, Blackpolls winter in South America and breed in northern boreal forests of North America. Photo by Brian Zwiebel.*

## FROM THE CHAIR OF THE BOARD

This past winter has been one of the harshest in recent memory, with an almost constant barrage of snow, ice, and freezing temperatures. When we consider how difficult it is for us to slosh through the messy roads and sidewalks and the inconvenience of bundling up for the shortest of outdoor trips, it is important to remember the vital role ravines play in protecting our native wildlife throughout the changing Ohio seasons. This issue's cover article, written by the renowned Ohio naturalist Jim McCormac, emphasizes the necessity of ravines for providing food and shelter to the many colorful Neotropical migrants who spend a fleeting but critical period of time in Central Ohio. Friends of the Ravines continues its mission to protect and restore these areas to safeguard the ecological services they provide our native flora and fauna, all the while recognizing the substantial benefits we receive from their continued presence in our daily lives.

As I write, Columbus is shoveling out from yet another snowstorm, and our thoughts inevitably turn toward the coming of spring. The sight of spring wildflowers cannot come a moment too soon! Fortunately, Friends of the Ravines and Friends of the Lower Olentangy have scheduled a spring plant walk that should go a long way toward helping us forget the misery of this brutal winter. Led by the enthusiastic and extremely knowledgeable local botanist Dr. Robert Klips, our walk is scheduled for Sunday, April 25, from 2:30 to 4:30 in the afternoon at the amazing Camp Mary Orton, located in northern Franklin County. Not to be missed!

Reflecting back on Fall of 2009 highlights: Friends of the Ravines partnered with United Way of Central Ohio for Community Care Day. I would like to add my personal thanks to the volunteers from Affinion Group, Inc. (an information technology company with offices in Dublin), who spent September 15 in Glen Echo Park removing graffiti, clearing trash from the stream, and planting native shrubs along the slopes. Thanks to the many volunteers who helped make this event a tremendous success!

We greatly appreciate your continued support as we plan similar activities in 2010 and beyond to preserve and enhance our fragile ravine habitats throughout central Ohio.

*Brian Gara, Chair, Board of Trustees*

## NEWS FROM THE RAVINES

**Hayden Run,** located west of the Scioto River in Dublin, has a new boardwalk that was completed last year. It is now possible to walk to the beautiful waterfalls with dry feet!

**Glen Echo Ravine** was where a birder saw (or heard) 20 different species of birds, including six Blue-gray Gnatcatchers and a Ruby-crowned Kinglet—all observed in a couple of hours in the early evening on April 24, 2009.

**Linworth Ravine** will be featured in the Fall 2010/Winter 2011 issue of *Ravinia* in articles about Sharon Township, the Jeffers Hopewell Prehistoric Mound, and a nostalgia piece based on a tape recording made during the 1980s building boom in Worthington.

**Walhalla Ravine** residents reporting on sighting a woodchuck (or ground hog or whistle pig) in their surrounds sent this interesting tidbit out to their e-list: According to a *Wall Street Journal* article, Richard Thomas, a wildlife expert from New York, estimated that a woodchuck moves about 700 pounds of dirt in building its burrow, so he estimated that over that same time and effort, a woodchuck could chuck 700 pounds of wood if a woodchuck could chuck wood.

**An unnamed ravine** abutting Duranceaux Park, where bush honeysuckle was removed a few years ago, is once again home to spring ephemerals.

## Meet FOR's Newest Board Member

Alice Waldhauer is a geologist and environmental consultant who has a keen interest in preserving natural settings within the urban environment. She graduated with a B.S. in Physical Sciences from The Ohio State University and for more than 20 years has been involved with environmental remediation and water-quality assessment at industrial facilities. Her hobbies include hiking and biking in central Ohio parks, gardening, wildflower observation, and bird watching. She has lived in Clintonville between Glen Echo and Walhalla ravines for more than 15 years. In the past, Ms. Waldhauer has volunteered for other central Ohio organizations, including the Ohio Department of Natural Resources, the Soil Conservation Service (now the Franklin Soil and Water Conservation District), SWACO Hazardous Household Waste Collection Events, and the American Institute of Professional Geologists.

We welcome her to the board of Friends of the Ravines.

Imagine the energy required to fuel such a journey. Habitats lush with native plants provide cover and resting spots, along with the abundant insect prey that keep the Blackpolls rolling. That's where our ravines come into the picture. A hungry warbler, exhausted after winging 100+ miles through the night, needs friendly haunts in which to drop down as day breaks, and the urban jungle has precious little of that.

Approximately 300 species of birds appear in Ohio annually (the total state list currently contains around 420 species), and about 100 of them are Neotropical migrants. Virtually all of these Neotropical species have turned up in area ravines, and most of them regularly use our urban canyons as stopover sites in spring and fall migrations. Their ranks include everything from cuckoos to flycatchers, thrushes, vireos, and warblers.

The biological importance of the ravines to birds is indisputable. But these birds give us great pleasure, too. Many a bird walk has been held in such places as Overbrook and Walhalla ravines, and many a person has been stunned by brilliant Scarlet Tanagers, flashing orange and black Baltimore Orioles, and cinnamon and yellow Great Crested Flycatchers.

Providing places where migrant birds can forage is vital. But so is saving places where people can watch them. Rich urban glens full of spring migrants offer a special respite from the hustle and bustle of the surrounding city. Our ravines provide convenient places for school groups to learn about nature and perhaps see some birds. Who knows, a gaudy Hooded Warbler popping up in front of some fifth grader in Iuka Ravine might inspire the next Roger Tory Peterson.

Warblers certainly have been many birders "spark," the catalyst that stimulated them to get caught up in the pleasures of birding. But let's take a glance at how conservation of our ravines plays a bigger global role in warbler conservation. Thirty-seven warbler species routinely migrate through Ohio or nest here. Of those, at least 35 might be found annually in Columbus-area ravines in spring or during fall migration, many of them in large numbers.

*Connecticut Warbler. Finding a rare and coveted Connecticut is a like discovering a feathered jewel. They are poorly known in their Amazonian wintering haunts and breed in mosquito-choked spruce bogs in the northern U.S. and Canada. Photo by Brian Zwiebel.*

These showy sprites use our urban habitats to rest and refuel: vital roadside rest stops on journeys covering thousands of miles. Doing our part to help warblers get where they are going has ramifications far beyond Franklin County. Those 35 species of warblers that visit our ravines each year radiate out across much of the northern U.S. and Canada to nest. After breeding, most of them will slip back to the tropics and collectively occupy nearly every country in the Caribbean and Central and South America.

*Once known as Sycamore Warblers, Yellow-throated Warblers require mature sycamore trees as breeding habitat. They winter primarily in the Caribbean and nest along central Ohio streams and in some ravines. Photo by Brian Zwiebel.*

As warblers rank high among birders' favorites, they stimulate lots of ecotourism. During the frenzy of May migration at the world-famous Magee Marsh Wildlife Area on Lake Erie, ten thousand or more birders might visit. They come from everywhere: almost all U.S. states, Brits from across the great pond, and fanatics from elsewhere on the globe. Favorite group of birds for most? Warblers, without a doubt.

Warblers weave their magic elsewhere, too. The tiny Central American country of Costa Rica—the size of West Virginia—has plenty of "our" migrating warblers in winter. Every species found in Ohio, with the exception of Kirtland's Warbler, is found there, many of them frequently. Not only do they look right at home in the jungle, these warblers contribute mightily to the allure of Costa Rican birding. Birding is an important economic driver for Costa Rica: the second largest revenue source and an enormous part of their Gross National Product. How we manage our habitats has a profound influence on far-flung places and vice-versa.

While our work to protect and manage the ravines of Columbus may seem a very small piece of the global picture of migratory bird conservation, it is an important one. The efforts of the Friends of the Ravines provide high visibility and education-rich opportunities to help urban dwellers appreciate the importance of habitat conservation.

With luck, our accomplishments will inspire others to take up the mantle of environmentalism. The birds will certainly thank us for our work.

*Jim McCormac works for the Ohio Division of Wildlife and is author of* **Birds of Ohio, Great Lakes Nature Guide,** *and* **Wild Ohio: The Best of Our Natural Heritage**. *His natural history blog can be found at http://jimmccormac.blogspot.com/.*

# A New Urban Wildlife Haven

*By Heather Starck & Heather Raymond*

Just south of downtown Columbus, along the banks of the Scioto River, lies a haven for birds and other wildlife. Forested riparian corridors, the large wooded Greenlawn Cemetery, and even some gravel pit ponds provide respite each year for thousands of migrating birds as well as being a home for many breeding birds. The area has received national recognition as the Scioto Greenlawn Important Bird Area, and local residents have been working to maintain and improve the habitat for birds and other wildlife that rely on it. Bald eagles and Baltimore orioles nest here; peregrine falcons use it as a training ground for teaching their young to hunt, and an array of candy-colored warblers, beautiful birds that many people have never even heard of, stop here to fuel up on their journeys to northern breeding grounds.

For years, Columbus Audubon has been leading bird walks to introduce people to this dazzling bird diversity, and starting in 2006 it began collecting monthly avian census data to better track which birds were using the area and at what times of year. All in all, over 200 species of birds have been seen in this important bird area, with new birds turning up all the time.

*A male Baltimore oriole and its woven basket-like nest. Many pairs of these beautiful birds nest in the Scioto Greenlawn Important Bird Area.*

The amazing thing to many visitors to the area is that it lies in the heart of a developed urban landscape, within walking distance of the state capitol. This area, especially the 160-acre Whittier Peninsula located on the east bank of the Scioto, had long suffered from remnants of an industrial past: old warehouses and rail yards, an abandoned steel plant and other manufacturing facilities, and an old municipal landfill were vying for space with the birds and other wildlife. But local leaders saw the importance of this area as a green space and began to work on making their green vision a reality.

About nine years ago, the city developed a Riverfront Vision Plan that called for the reclamation of the Whittier Peninsula. The goal was simple: transform 87 acres of mistreated jewel into a natural metro park, and adapt the remaining 73 acres for sensitive urban redevelopment. Leaders from the City of Columbus, Franklin County Metro Parks, and Audubon Ohio came together to plan for the future of this urban green space.

The culmination of this collaboration is the LEED-certified Grange Insurance Audubon Center, the first such center in Audubon's storied history that will bring hands-on conservation and nature-based, world-class learning into the core of a major American city. This impressive public/private partnership was a strong collaboration from the beginning, and each partner played an important role in the center's future. Foundations, businesses, and individuals contributed generously. And the City of Columbus and Franklin County Metro Parks spent tens of millions of dollars reclaiming the site, remediating environmental problems, and developing park infrastructure.

The Grange Insurance Audubon Center is a natural asset that will provide educational, recreational and entertainment opportunities for children, residents, tourists, educators, businesses, neighborhood groups, and community organizations alike. The benefits of the center to the community and its children will be enormous. There are 59 schools within a five-mile radius of the center, in which 80 percent of the student population is economically disadvantaged—and less than half of these students are passing their science proficiency tests. The center will provide an invaluable educational resource to these students and help them better understand and value their local natural landscape.

The heart of Audubon's mission is environmental conservation and restoration, and this ethic guides all of the center's programming and education activities. For example, the center used the avian diversity data collected from within the important bird area—Whittier Peninsula, Greenlawn Cemetery and a portion of the riparian corridor south of downtown—to help develop a comprehensive conservation plan for the region, and it is working with Metro Parks and other partners to implement the plan. Already, acres of invasive species have been removed and replaced with native vegetation, and new wetlands are replacing abandoned warehouses. This is happening in conjunction with detailed environmental monitoring to help evaluate the success of the restoration efforts. At every level, neighborhood children and adult community members are involved in the restoration, helping create a sense of pride in their local environmental accomplishments.

There are many opportunities to learn more about the Grange Insurance Audubon Center and to assist in its conservation goals. Bird walks are led by Columbus Audubon on the first

Wednesday of every month, starting at 7 A.M., and meeting at the Whittier Street Boat Ramp. Additional nature walks and various programs are held during the week and on weekends at the center. In addition, the center is always looking for volunteers to help with data collection and habitat restoration. The new "Birding for a Better Columbus" program pairs birding experts with novices to teach the basics of avian monitoring to collect data for conservation programs. No prior birding or habitat restoration experience is needed to volunteer! To learn more about the available educational programs and volunteer opportunities, visit the Grange Insurance Audubon website at: **www.grangeinsuranceauduboncenter.org**. Columbus Audubon also maintains a calendar of events on its website at: **www.columbusaudubon.org**.

*The LEED-certified Grange Insurance Audubon Center is an excellent example of local green architecture. It offers numerous environmental education programs and is a center for local conservation efforts. It is located just south of downtown Columbus at 505 West Whittier Street.*

The Grange Insurance Audubon Center showcases the resilience of nature and the power of conservation-minded design. It is a national landmark for urban renewal, brownfield reclamation, and green architecture. It serves as a model of what public-private cooperation and civic pride can do to revitalize urban decay and reclaim natural environments for future generations. It brings an educational nature experience for all ages to the urban core. That's the beauty of the Grange Insurance Audubon Center. We hope you will visit to experience it for yourself!

References for this article and helpful links are posted on Friends of the Ravines' website: friendsoftheravines.org

* * * *

*Heather Starck is the executive director of the Grange Insurance Audubon Center. She can be reached at: hstarck@audubon.org. For more information on the center, visit www.audubon.org or call 614-545-5475.*

*Heather Raymond is the Vice President for Columbus Audubon and can be reached at: heather_columbus_audubon@yahoo.com. Information on Columbus Audubon programs is available at: www.columbusaudubon.org.*

*Photographs for the Audubon Center article were provided by the center's architect, The Design Group.*

# More Spring Haiku

*by Jeanne Desy*

colorless birds
fluttering in bare branches
spring rain

in the melt after the spring blizzard
the creek is brown satin
rolling off the bolt

sunrise
last year's oak leaves
glow like paper lanterns

in this instant world
last fall's seeds
still hang gracefully

* * * *

*The 2009 Spring Summer Anniversary Issue of* Ravinia
*featured Spring Haiku by the gifted Columbus poet Jeanne Desy.*

# Spouting Off About Downspouts

*By Alice Waldhauer*

A colleague of mine used to say that water in an arid region is a precious commodity, but in the Midwest it is a ubiquitous nuisance—and nuisances need to be managed. Downspouts and gutters are the homeowner's first line of defense against problems that arise from the lack of water management. Rotted wood and flooded basements may ensue if water isn't effectively directed away from the foundation of a structure, but other problems can arise if the water is allowed to erode sloped ground or if it is directed to the city's sewer system. For those of us who are lucky enough to live adjacent to a central Ohio ravine, a little thought about water management can help us protect that desirable landscape. Even those who live away from a ravine environment can help protect the ravine settings by following some simple water management techniques. These techniques help homeowners live in harmony with their surroundings and help the City of Columbus tackle some of the most expensive water management challenges in decades.

More than a century ago, Columbus was a growing city, and engineers took advantage of convenient elevation differences in designing sewers to carry water away from city neighborhoods. Sewer lines were constructed in area ravines to ensure that piping would have enough elevation drop to make it operate efficiently in using gravity drainage. Columbus constructed its first sewer in 1841. In the days before we had indoor plumbing, sewers were used to drain excess storm water and dump it into nearby waterways. As cities grew and indoor plumbing became a standard feature of urban living, homeowners and businesses eagerly hooked up their facilities to the existing storm sewers. Before long, local waterways were turned into fetid, pestilent rivers, and typhoid fever was common.

Columbus opened its first sewage treatment plant in 1908, treating a combination of storm water and sanitary waste. During dry weather, the combined sewer systems operate like sanitary sewers. However, these combined systems tend to be overwhelmed in wet weather, causing overflows to be directed through engineered relief outlets to waterways. Modern sewer systems require separate systems for storm and sanitary flows, with storm water directed to nearby waterways and sanitary wastes sent to treatment plants for neutralization.

Under the consent order with the Ohio EPA, the City of Columbus continues its work to separate the combined sanitary and storm water sewers. The Wet Weather Management Plan and Project Clean Rivers also provide for elimination of sanitary sewer overflows with the construction of three massive tunnels to provide storage capacity for wet weather events that can overwhelm the sewage treatment plants. According to the Columbus Department of Public Utilities, "the combined sewer system overflows are responsible for more than 90 percent of the bacteria in the Scioto River in an average year." Why does wet weather affect the capacity of sanitary sewers? Because the aging sewer system leaks at a significant rate, with rainwater infiltrating into the system.

Another cause of the sewer capacity problem is the number of downspouts and other storm water sources that are still connected to city sewers. Columbus has been tackling infrastructure upgrades by using techniques to clean, inspect, and repair many sewer lines from the inside. These in-situ repair methods are far more cost effective than digging up sewer lines and building new ones. Still, as ratepayers for city water well know, the multi-billion-dollar cost projected for this work over 40 years is enormous.

While the City of Columbus is engineering its way out of its sewer system problems, the City of Cincinnati is experimenting with a different approach. Both cities are the proud owners of aging sewer systems, with similar problems of leakage, combined sanitary and storm water lines, and sanitary sewer overflows. Both cities faced lawsuits over the way their wastes are managed because they were not in compliance with the federal Clean Water Act. But Cincinnati is making a bigger effort to bring green management practices into the equation with incentives to use bioswales, retention basins, permeable pavement, and rain gardens to lessen the burden on aging sewer systems. As in Columbus's tunnels, these practices are designed to provide storage capacity during peak rain events and promote infiltration into soil so that water never enters the sewer system in the first place, thus reducing costs for capture, storage, and treatment. These techniques are giving hope to city managers that some taxpayer costs can be avoided with modernized sewer systems. Rain gardens are starting to appear in the central Ohio landscape, but many more rain gardens and drainage basins will be needed to dampen peak flows to sewer systems during heavy rains.

Why should we care about accommodating peak storm water flows? For taxpayers and utility ratepayers, it makes financial sense for everyone to help curb storm water flows. For example, if you have a problem of water around your foundation, directing water away from it is simple enough, but you must make sure you don't put your neighbor's basement in jeopardy in the process. Flexible corrugated hose is easily attached to your downspout and directed to the lawn or landscaping plants. Since water will come out of the hose at a fast rate during a heavy rain, fasten it securely and place it so that the water won't excavate your favorite flowers. You can use a splash block or arrange stones to slow the water velocity as it exits the hose. For those who are lucky enough to live on the edge of a ravine, you should manage rainwater so that it won't erode slopes or flood basements. Ideally, you should steer rainwater away from ravine slopes and to flat ground, where it will filter into the soil and be used by vegetation. If you have no alternative to sending water down a slope, consider securing hose all the way to the bottom of the slope so that it discharges to a level area where established vegetation

can hold soil in place and minimize erosion. Keep in mind that discharging roof runoff directly to area streams is frowned upon (and may be prohibited by city code). Ravine homeowners should be particularly cautious in the placement of drainage devices so that slopes below their houses won't be undercut or oversaturated, increasing the potential for slides or slumps that could put their homes in structural jeopardy. Vigorous, deep-rooted vegetation at the toe of a slope helps hold soil in place, further minimizing the danger of slope failure. More information on managing ravine slopes can be found in "Guide to Protecting Urban Ravines," available at the Friends of the Ravines website: www.friendsoftheravines.org.

People who live on flat ground away from slopes can help protect ravines, too. Many residences are equipped with downspouts connected to underground drainage tiles that empty to the street, and the water flows along the gutter to a nearby storm drain. Other residences have downspouts that are still connected to the sanitary sewer, although it was outlawed in 1963 under Columbus City Code. Using a splash block or flexible hose to divert water away from a building's foundation can be a much better solution. These water management techniques may not work everywhere, and some trial and error may be needed to find the best solution. If standing water remains for more than a day or two after a heavy rain, some changes are in order. But water that is allowed to percolate into soil reduces the peak flows observed in sewers and ravines, reducing the volume of water needing treatment, and reducing the erosive power of water as it rushes through ditches, creeks, and ravines.

If you want more information, you can find references for this article and helpful links on Friends of the Ravines' website: www.friendsoftheravines.org.

# Yard Waste Pickup

Spring heralds the return of yard waste pickup in Columbus. We hope our ravines will be free of such unwelcome packages as these bags of leaves that showed up in Walhalla Ravine last fall. However, the city won't pick up leaves as pictured. They accept only paper or reusable containers.

**YES! I WANT TO BE A SUPPORTING MEMBER OF FRIENDS OF THE RAVINES.**

Name_____ E-Mail_____ Phone_____

Address_____ City/State/Zip_____

Indicate any special instructions for listing of your name in the Roster of supporting members. _____

**Membership Category** *Make Check Payable to* Friends of the Ravines.

___ Friend: $15 ___ Sponsor: $35 ___ Sustainer: $50

___ Contributor: $25 ___ Household: $40 ___ Patron: $100 ___Corporate (Over $100) _____

I want to volunteer to help Friends of the Ravines carry out its mission to protect ravine areas and educate the public. I can help by:

__ Distributing *Ravinia* __ Writing Articles for *Ravinia* __ Preparing Mailings

__ Assisting with the Website __ Giving Computer Advice __ Helping with Ravine Cleanups

__ Planning Community Forums __ Removing Invasive Plants in Ravines __ Becoming an On-Call Volunteer

My special area of expertise is _____.

My favorite ravine is _____.

Friends of the Ravines, PO Box 82021, Columbus, Ohio 43202

# Supporting Members

***(Received from November 9, 1009 to March 12, 2010)***

Anonymous
John and Meg Adams
John A. Caprio
Ellen Carter
Tom and Pam Clanton
Philip and Barbara Courtad
Maureen Crossmaker
Michael L. DeKay
Chris Demos
Bruce Dudonis
Patricia Eiben
Daniel and Karen Grafner
Richard Hand
Tom Hawk
Becky Lineberger
Alan Magnuson
Jackie Mayo
Mary McRury
Carrie Morrow
Anne Paterson
Jack Perigo
Laura Plachta
Linda and John Ridihalgh
Craige Roberts
Judy Robinson
Margaret Ann Samuels
Paul D. Sandstrom
Catherine Stewart
Craig & Hedda Stewart
Jim and Virginia Wagner
Ted & Jean Williams
Worthington Condomiums

# Thank You:

**Hosting FOR's Annual Community Forum:**
Clinton Heights Lutheran Church

**Operating Assistance:**
Clintonville-Beechwold Community Resources Center
Kenwel Printers
Mid-Ohio Regional Planning Commission

**Ravinia Design and Production:**
AJaX Designs

**Ravinia Copy Editor:**
K Adamson

*Ravinia* is the official publication of Friends of the Ravines.

**CONTRIBUTORS**

Martha Harter Buckalew
Jeanne Desy
Brian Gara
Heather Raymond
Heather Starck
The Design Group
Jim McCormac
Alex Silbajoris
Alice Waldhauer

*Ravinia* is funded through donations from supporting members. The mission of Friends of the Ravines is to foster the protection and restoration of ravine areas in Franklin County through community education and conservation.

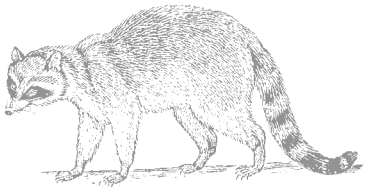
*Submissions and suggestions are welcome.*

**FRIENDS OF THE RAVINES BOARD OF TRUSTEES**

Martha Harter Buckalew
Maureen Crossmaker
Sherrill Massey
Jack Cooley
Brian Gara
Carrie Morrow
Alice Waldhauer

Web site: www.friendsoftheravines.org
e-mail: mhbuckalew@sbcglobal.net

Ravinia
P.O. Box 82021
Columbus, Ohio 43202



100% recycled paper, 20% post-consumer waste