

RAVINIA

An Advocate for Community Resources Published by Friends of the Ravines (FOR) Spring/Summer 2017

BIOBLITZ-Fall 2016

Text by Maureen Lorenz Photos by Michael Graziano

"You don't know what you got till it's gone," sang Joni Mitchell in her "Parking Lot" song. But the September 17, 2016 BioBlitz in Glen Echo Ravine was held to make sure we know what we have. It was an overcast day with a drizzle now and again, but that did not dampen the enthusiasm

of scientists and citizen-scientists who went out that day to discover and record the ravine's biodiversity. 2016 was the first late-summer BioBlitz held in Glen Echo, and it was a good one.

ncredibly, 440 species were identified and recorded in the 12 hours of the BioBlitz. Identified in the ravine were:

- 4 species of amphibians,
- 1 species of reptiles,
- 2 fish species,
- 9 mammal species,
- 78 species of birds,
- 106 invertebrate species including 32 species of spiders
- 8 species of fungi

232 plant species of which 60 were identified as introduced to the ravine and of these, 25 species are listed on the ODNR invasive species list.

Biodiversity by definition is the variety of life existing in the world, in a particular habitat, or in an ecosystem. The scope of biodiversity covers everything from the vastness of the Amazon, to the Glen Echo Ravine, as well as our backyards. Biodiversity includes any and all ecosystems—even the urban environment.

The earth needs biodiversity. It is the network of interactions among species, and that network of linkages among ecosystem processes is complex.



Great Spreadwing (Archilestes grandis)

FROM THE CHAIR OF THE BOARD

Approximate an appearance this year. Perhaps a late winter/early spring snowfall has cascaded through the trees to settle on the emerging spring wildflowers! Even with this mild winter, the sight of new growth and the promise of spring blooms are always welcome. What have you discovered in the ravines this spring? Share your discoveries with us! Email us or start a conversation on our facebook page. We want to hear from you!

As you look through the pages of this edition, you will see the incredible ravine-inspired artwork that the children of central Ohio submitted to this year's Ravine Art Contest. To see their remarkable art in color, please visit our website, *www.friendsoftheravines.org*. We want to thank all the participating schools, students, teachers, volunteers, and donors, for making this year's contest the best yet!

This issue presents the findings from last year's BioBlitz in Glen Echo ravine, which attracted people with varied knowledge of natural history. It is astonishing how much diversity can exist in a small urban environment. Ravines are truly amazing! Keep turning the pages and you can discover how to turn your yard into a home for wildlife or read about the relentless problem of litter in our ravines.

Do you buy groceries at Kroger? You can help FOR by participating in the Kroger Community Rewards program. You can help send funds to FOR every time you shop! Just register your Kroger plus card to Friends of the Ravines. Thanks to all who already participate in this program!

Here's a reminder that the Board of the Friends of the Ravines is all-volunteer, and we welcome energy and input from talented, passionate folks. You can help us bring our mission of protecting and restoring Franklin County's ravines by fostering community partnerships through education and conservation. If you are interested in sharing your talents, please contact us at *friendsoftheravines@gmail.com*. Do you have any comments or suggestions? We would love to hear from you! You can also follow us on our Facebook page.

We hope to see you soon in the Ravines!

Carrie R. Morrow, Chair

If you would prefer to read *Ravinia* on the Web instead of receiving a paper copy, please send an e-mail to <u>friendsoftheravines@gmail.com</u> and let us know.

We'll e-mail you when a new issue is ready to read.

NEWS FROM THE RAVINES

GLEN ECHO RAVINE'S south rim between North Fourth and Summit Streets will be the site of pollinator plantings funded by the Lucky's Market Bags-for-Change Program. The top of the slope will be identified by *Conservation Area* signage paid for by a grant from The Columbus Foundation & the United Way's Neighborhood Partnership Program.

SEVERAL RAVINES that are contained in areas recently designated as Nature Preserves are Beechwold Parkland, Hayden Run, Kenney Park (located in Bill Moose Ravine), Mock Park (which contains several un-named ravines), Rush Run, and Webster Park.

WALHALLA RAVINE, home to the recent FOR Plant Walk, is working on replanting this spring, having received several hundred trees and shrubs for Earth Day events through Green Columbus. The primary aim is to stabilize stream banks in areas currently populated with bush honeysuckle. A mixture of trees will replace those killed by the emerald ash borer.



A Weed Wrench works well for removing unwanted intruders.

KNOW YOUR STREAM!

Please call **614-645-STREAM (7873)** to report pollution in our rivers and streams or to report anything other than rain entering a storm drain. **Columbus.gov/stormwater**

BIOBLITZ—Fall 2016 continued from page 1

It is an important part of the ecological services that make life sustainable. For example, plants do everything from cleaning water to absorbing chemicals, which wetlands do.

Biodiversity by definition is the variety of life existing in the world, in a particular habitat, or in an ecosystem.

They provide oxygen for us to breathe—one of the many things that have great impact on our quality of life. The 2016 BioBlitz provided an opportunity to explore nature, educate participants, and record a moment in the life of a ravine.



Witches Butter (Tremelia mesenterica)

A special thank-you goes to Michael Graziano for his leadership and expertise; he was accompanied by scientist colleagues who led participants on walks and identified many of the plants and animals. We encourage readers to check out the Spring/Summer 2014 Ravinia, available at our websitefriendsoftheravines.org; there is an excellent article written by Michael describing the 2013 BioBlitz and includes the genesis of the BioBlitz effort. As true today, as then, is Michael's hopeful message that "amidst a worldwide biodiversity crisis and loss of habitat, life is resilient."

Organizations hosting this event included the Lower Olentangy Urban Arboretum (LOUA), the Friends of the Lower Olentangy Watershed (FLOW), the Friends of the Ravines (FOR), and the Glen Echo Bird Club.



Fairy ring fungi (Leplota sp.)

Variable turkeytail (Trametes versicolor)

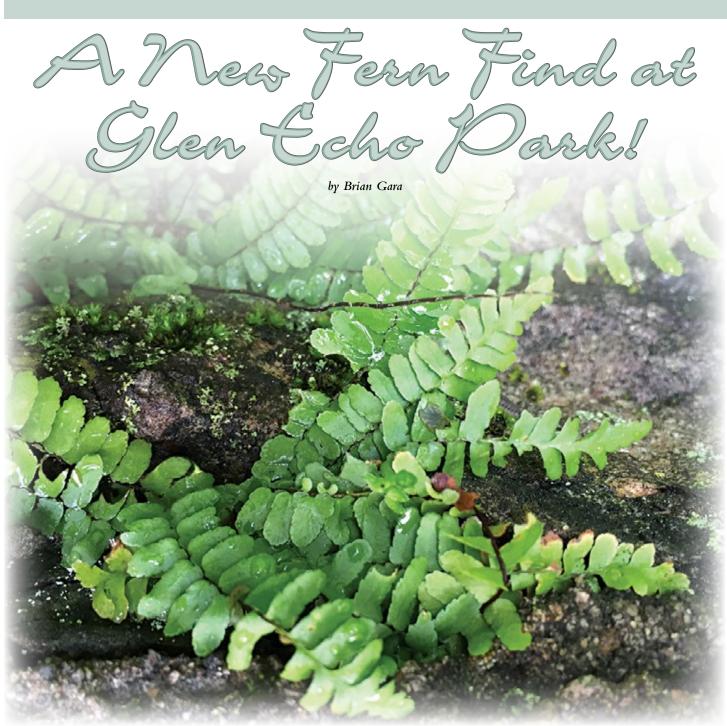
There's no time like the present to link into our ecosystem: the plants and animals that exist in our ravines help us determine how to protect our natural heritage as well as what to plant in our backyards. If you could not participate last year, you can still enjoy the BioBlitz by selecting a species from the above list and learning about it. It's a fun way to introduce yourself to our "nature neighbors" and to enjoy and appreciate the diversity of life in the urban area.



Jack-in-the-pulpit seeds (Arisema triphyllum)

Spring/Summer 2017

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Courtesy of Alice Waldhauer

Ferns are an amazing group of plants. Present on the earth long before flowering plants evolved, many fern species that are frequent denizens of our native plant communities today were also present hundreds of millions of years ago during the time of the dinosaurs. Their sensitive life cycle makes it difficult to re-establish these species once they have been eradicated through human disturbance. Because of this, ferns are considered to be excellent indicators of ecological health. About twelve years ago, when I was conducting a study of the ferns of central Ohio ravines, I found that both the diversity of species and overall abundance of ferns in general was much lower as the levels of disturbance increased. This was true from the northernmost site surveyed, Highbanks Metropark, to the southernmost, Glen Echo Park. In fact, I was unable to locate a single native population of ferns within the confines of Glen Echo. Fortunately, since that time significant progress has been made in restoring the



Christmas Fern (Polystichum acrostichoides)

natural plant community within Glen Echo Park. Those efforts have focused on the planting of many native woody and herbaceous species along the environmentally sensitive, shale-dominated slopes. On a recent visit to Glen Echo, I was pleasantly surprised to find that several of these fern plantings have been successful, with many individual fern plants thriving in the fragile environment. Sensitive Fern

(Onoclea sensibilis) has been planted in small wetland areas adjacent to the paved trail leading into the park, and is persisting within this limited habitat. Several clumps of Christmas Fern (*Polystichum acrostichoides*) are thriving along the steep shale slopes where they provide protection from erosion as well as habitat value.

Even more exciting was the discovery, in the spring of 2016, of a previously unrecorded population of a native fern species. Alice Waldhauer, while exploring Glen Echo Park, stumbled upon several individual plants of Ebony Spleenwort (*Asplenium platyneuron*) growing along a stone retaining wall. Ebony Spleenwort is a fern frequently found in second growth forests and limestone cliff

faces throughout eastern North America. Personally, I have recorded this species from only a handful of locations near Columbus. The largest population I have encountered in Central Ohio is located in a sheltered spot in Hayden Falls Park along the Scioto River near Dublin. Fortunately, the Glen Echo Park population, though small, is in a fairly wellprotected spot and is unlikely to be affected by visitors to this outstanding park.

Ongoing efforts to protect and restore Glen Echo Park are clearly yielding positive results, as evidenced by the previously eradicated fern species which have been re-introduced and are now

Photo by Brian Gara

thriving. These important protective measures, including slope re-vegetation and eradication of non-native species are also helping to ensure the long-term success of native plant species, such as the Ebony Spleenwort population. Continuing this critical work to reduce human disturbance within our urban green spaces will guarantee the presence of these metropolitan biodiversity "hot spots."



Ebony Spleenwort (Asplenium platyneuron)

Photo by Brian Gara

Text and Photos by Maureen Lorenz

Take Your Yard an Ecosyste

y husband returned from an American Water Works Association meeting and he presented me with an etched wine glass inscribed with "no water, no wine." So much of everything we do depends on water. Water protection is a serious environmental issue and my glass is my reminder of this.

Columbus should consider the water industry of Los Angeles, California as our template for the future. Suffering from severe drought conditions that will likely continue being cyclical and severe, LA implemented a program called "Cash for Grass."The

program's purpose is to replace water-inefficient grass with drought tolerant landscaping. To receive the rebate, the applicant must include native or drought tolerant plants, mulch, and permeable hardscape. Before this program started, 70% of water consumed by the average single-family home in LA was used out-of-doors.

Nationally, approximately one-third of the water budget of the average single-family home goes toward outdoor landscaping, with most of it spent maintaining the lawn. Our love affair with lawns begins with the English Landscape movement becoming popular in the mid-1800s in the United



The well named assassin bug nymph helps control pests in the garden.

States extolling the lawn as the "velvet robe" of the home. It continues today. However, the US does not enjoy the temperate climate and moisture availability of Great Britain. We lavish water and chemical fertilizers and pesticides on our lawns to obtain that look of lush and green English-estate lawns.

In 2016, a Freedonia Group report titled *People Are Nuts for Insecticides* explained how insecticides are surpassing herbicides in use; spending on them is expected to reach \$910 million by 2020. That's a lot of bug killer and petroleum-based chemicals that end up in the food chain and in our water via runoff from those lawns. Reading that title with a different emphasis might make more sense. Another consideration is the equipment we use to maintain lawns. One hour of mowing the lawn spews as much pollution as a 100-mile car trip or as much as operating 11 new cars for an hour. And there are roughly 38 million lawn mowers in the US, plus leaf blowers, tillers, snow blowers, trimmers, and chain saws.

Americans burn 800 million gallons of gas each year mowing lawns. This pollution is in our atmosphere and water. This pollution increases the Heat Island Effect. Columbus is now one of the top ten cities with most intense summer urban

> heat islands. Hotter temperatures mean more stress on plants (and people) and more water necessary to maintain our lawns. (Let's plant trees to shade our lawns vs. watering)

Lawns are primarily turf grasses and do provide an aesthetic for our homes, provide a durable groundcover to walk and play on, provide pet spaces, and prevent erosion. For those that must have a green mowed lawn, keep in mind that non-irrigated lawns have stronger root systems. Let your lawn grow a little higher. The height

of the blade usually equals the depth of the roots. Taller grass (3"-4") is stronger, shades out weed seeds, and won't dry out as fast. Recycling grass clippings returns nutrients and organic matter to your lawn and keeps landfills leaner. Organic matter helps retain moisture in the soil. When moisture is scarce, grass is programmed to go dormant. Let it. Use turf grasses more adaptable and drought tolerant. Through research many of the fine fescues are bred to tolerate urban conditions, or use a mixture of grass seeds to extend the response to a variety of conditions. There also are native grasses to consider. There are many resources and experts to help you improve your lawn and make it more sustainable.

But, if you are willing to try something different and be more creative...

Our homes are our sanctuaries. No two homes use the same décor and no two homes have the exact same landscaping. Our homes reflect our individuality. Collectively, however, our homes create an urban ecosystem dominated by lawns (turf grass) and shrubbery. While it might be true that no two landscapes are identical, it is true that we tend to conform to our neighbors, a tendency Tim De Chant (2011) termed "spatial contagion."



sustainability, but codes are from a different era and don't reflect the challenges of reducing heat islands, creating bio-diverse ecosystems of our backyards, or climate change. And changing codes moves slowly. The native plant milkweed – a vital plant to the existence of the monarch butterfly, whose population is in decline – is finally being considered for de-listing from the noxious weed classification.

Codes are developed to protect neighborhoods from neglected properties. A prairie planted in the front yard might appear initially as neglect. A prairie created on a single-family lot with a plan documenting your native plants and natural area

> and maintained properly, might help prevent misunderstandings. Continued efforts might lead to changing attitudes and our aesthetics, as well as inviting nature into our home sanctuaries.

There are no local programs that will certify your yard as a natural area or eco-yard recognized by the city—yet. The Franklin Soil and Water Conservation District has a Backyard Conservation program and offers workshops, and is a likely partner in this effort.

One more item to consider is the longterm effect of your natural area. Wildlife is hardwired to return to the area where they



"hatched." Developing natural areas is a commitment. Will these animals find what they need to survive and live in harmony with eighty percent (80%) of the US population that live in cities? Let's hope eco-yards are contagious and will catch on. The water that runs off our yards into our sewers spills into our streams and rivers and ravines. Our natural heritage, our natural resources, our clean water, depends on all of us doing what we can.

A creative approach to your yard could inspire and begin a cascade of ecological changes among neighbors, and within the city. One strategy might be to put your lawn on a diet. Increase the size of the landscape beds and mulched areas, plant trees, and employ methods to reduce the area of the lawn. This approach is more likely to be acceptable and imitated in the average neighborhood. The mulch helps retain soil moisture and a reduced lawn area will take less time to mow (and water).

Your yard is part of the urban ecosystem and as such, you can increase biodiversity and offer ecological services to the world of nature. Removing even more of the lawn or removing it entirely, replacing it with native trees, shrubs, and wildflowers, is a start. Developing a plan for

this "bird-scaping" is recommended. Turning your yard into a natural area has some challenges. If the change is a radical break from tradition in your neighborhood, you might create something too different, make neighbors uncomfortable, and be cited for a code violation.

Columbus is a progressive city and has an Urban Tree Canopy Assessment Report and a natural-gas powered fleet, and it talks



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Friends Celebrate Sixth Ravine Art Contest

Mix of teachers, student artists, and their families attended the Award Ceremony for the Sixth Ravine Art Contest on February 24, 2017. Nearly 90 works were on display at the Northwood ARTSpace; it was the largest number of entries in Ravine Art Contest history. The entries included painted landscapes, wildlife prints, photography, haiku poetry, and plenty of owls. The contest for K-12 students in Franklin County successfully spreads FOR's message of ravine protection and restoration. Entries focus on common problems such as litter, invasive species, and dwindling habitat.

The endless variety of submissions melded nature, science, and art. For example, students from the Columbus Gifted Academy submitted craftily executed bird mono-prints some adorned with spectrograms (a visual scientific notation) for the vocalization of specific bird species. (At first glance, these spectrograms are reminiscent of the reddish ownership stamps commonly seen on Japanese prints.) In a collaboration with the Grange Insurance Audubon Center, students selected a bird species and learned about its habits and habitat, then created and submitted their artworks to the contest.

Friends of the Ravines was proud to award student and the corresponding school prizes for the following categories:

Visual Art Grades K-2

Lilly Sagraves, a kindergartner from Georgian Heights Alternative Elementary, for her bird collage

Visual Art Grades 3-5

Fifth grader Alayiah Taylor-Mitchell, from Westgate Elementary School, for her decorative squirrel with an acorn

Poetry Grades 3-5

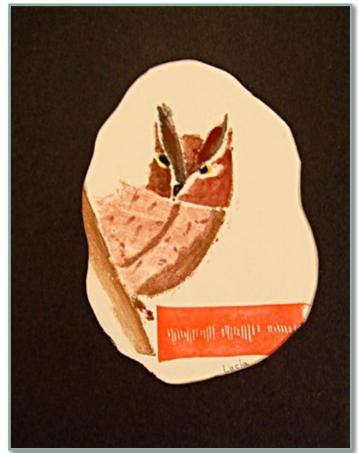
Fifth grader Jesse Imler, from Georgian Heights Alternative Elementary School, for her illustrated haiku entitled *Winding Hollow*

Visual Art Grades 6-8

Sixth grader Nora Hagen, of Indianola Informal K8 School, for her landscape created with watercolor and gel pen entitled *Ravine Dream*. Her favorite ravine is Walhalla Ravine

Visual Art Grades 9-12

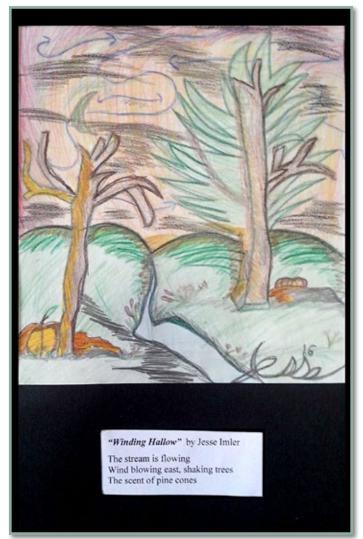
Ninth grader Eduardo Varona attends Independence High School. His entry, *River,* was created with pencil and employed blending and shadowing favored by judges



The Columbus Gifted Academy's entries featured a spectogram— A visual scientific notation for bird species vocalizations.



Winner: Westgate Grades 3-5





Owl collage Winner: Georgian Heights K-2

Haiku Winner: Georgian Heights Grades 3-5



Pencil drawing Winner: Independence High School



"Ravine Dream" Winner: Indianola Informal K-8

To see full color images of the winning works of student artists, please visit our website at *friendsoftheravines.org*.

Ohio Wetlands Association Partners on Petition to Protect Ohio's Wild Turtles

by Ray Stewart, OWA Snapping Turtle photos courtesy of Michael Graziano



The Ohio Wetlands Association (OWA), the Center for Biological Diversity, and others are petitioning the Ohio Department of Natural Resources (ODNR) to propose regulations that will end the unlimited wild collection of common snapping and softshell turtles in Ohio. Turtle populations in the state and across the country are already experiences declines due to habitat loss and road mortality, and unlimited wild collection of these reptiles exacerbates these unfortunate trends. for OWA. While these native species are not the charismatic critters that quickly evoke public sympathy, they are critical components of the ecosystem.

The snapping turtle (*Chelydra serpentina*) is Ohio's largest turtle, up to 35 lbs. and more than 14 inches long. Their shell has three rows of keels that serrate toward the back; their habitat is fresh water with muddy bottoms and abundant vegetation. Snapping turtles eat invertebrates, carrion, aquatic plants, fish, birds, and small mammals. Peak breeding occurs from April to November with up to 83 offspring. Except for softshell turtles, the sex of all species of Ohio turtles depends on the temperature at which the eggs develop. For instance, eggs that develop at 77 degrees F will be male, while eggs that develop at much higher or lower temperatures will be female. In the wild, warmer eggs at the top of a nest may all hatch as females, while cooler eggs at the bottom hatch as males.

Ohio does not allow its live, wild caught turtles to be exported. However, export of turtle meat or parts is allowed. While still common in Ohio, the snapping turtles and softshells are at risk in a global marketplace where demand in other parts of the world is insatiable. Market hunters are turning their gaze to Ohio as sources become depleted elsewhere. It is time to get ahead of the curve and secure protection now.

The Center for Biological Diversity is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center is supported by over 1 million members and online activists throughout the United States, including approximately 45,000 members and supporters in Ohio. The Center and its members are concerned with the conservation of rare wildlife, including turtles, and their essential habitats.

Softshell turtles are stream dwellers and are unlikely to be found in wetlands. Snapping turtles, on the other hand, are frequently found in wetlands, and therefore constitute a concern



Litter Litter Everywhere ... Don't People Care?

One day this past summer, I took our 12-year-old grandson, who has a book wherever he goes, down into the Adena Brook Ravine to read. Now, he loves hiking the ravine and streams with Grandpa, but he and I had never read our books in the ravine. I took him to my favorite spot growing up in the '50s, where I would sit on a stone ledge near a little waterfall to read, skip stones, enjoy friends ideating and imagining the history in the strata on the far tall ravine wall. Today, there is a bench at the location upon which my grandson and I sat while I pointed out the solid shale ledge on which I had sat to read long ago and the historical view across the stream from us. But my joy of sharing this special spot with Jacob soon faded, as we looked across at that shale wall to see it obliterated by plastic bags caught on the jagged edges, Styrofoam pieces floating below, beer cans, water bottles. Jacob could tell my dismay at the sight so he offered to ford the stream to get it all. But he did not have on wading shoes, nor did we have our gloves or trash bag. I assured him that was not what I saw growing up. I would see that it got cleaned up and encouraged him to enjoy his book. I could not read, only think. When I had sat there as a child, I never saw junk in the stream. It was so pristine. We threw stones or sticks into the stream to watch them sink or float. What has happened?

We were not the "throwaway society" then. We did not have plastic bags, carryout containers, aluminum cans, water bottles. We had glass soda and beer bottles which required a deposit. But in our recent ravine clean-ups we even found a TV, tires and even hypodermic needles. Are THINGS the cause of this horrible problem all over our city and on the highways, where trashed ramps cause me to want to drive with blinders to hide



Courtesy of Alice Waldhauer

the ugliness? THINGS make it easier to be tossed, but ultimately, it has to be the HUMAN FACTOR and the LACK OF RESPECT FOR PROPERTY, something that was very strong in all of our belief systems growing up in the '50s. Where and when we lost it is not the concern now. Most importantly, how can we get it back? People tend to emulate what they see; one sees trash, so it must be okay to add to that trash! Volunteers, leading by example, work to clean it up and it returns overnight. How can we turn around the thinking? Education, awareness, leading by example? I do not know the solution. <u>I just know that we must start to do something consistently</u>, as the issue in Columbus is far beyond what a volunteer system and Keep Columbus Beautiful funds can handle. Crime is known to be associated with litter, both expressing a lack of respect for property and life. How can we make people care again?

Judy Robinson, Adena Brook Community Lead Team Member

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