



RAVINIA

An Advocate for Community Resources

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Spring/Summer 2018

Urban Forests

By Jim McCormac

The mini-canyons that slash through north-side neighborhoods of Columbus, dumping their waters into the Olentangy and Scioto rivers, represent the best of our urban forests. Largely protected and beloved by residents, the ravines of Glen Echo, Overbrook, Walhalla and many others harbor linear bands of older-growth forest. It wasn't always so. If we could teleport back several centuries, we would get to see our cherished ravines in a pristine state. In pre-settlement days, massive old-growth timber would have cloaked the ravines' slopes, their roots and overarching leafy canopy protecting the pristine waters of the small streams that incised these gulches over millennia. Birds and other wildlife would have abounded, using the ravines for shelter, travel corridors, denning sites, and in the case of birds, nesting sites and food-rich way stations along long migratory journeys.

As Columbus began to be settled, the land in and around the ravines was tamed and developed. There were times during our city's growth that one probably would have been hard-pressed to find a tree around these ravines. During these bleak times of ecological destruction, ravine animal life would have suffered badly. Fortunately, decades ago Columbusites recognized the value of our ravines as fascinating geological punctuation marks in an otherwise flat landscape, and their potential is green urban oases. Today, we see the fruits of long-term conservation in the trees. Massive sycamores, cottonwoods, hackberry, oaks, maples and more soar aloft, creating true urban forests.

In tandem with the maturation of these ravine forests—and in many cases, the trees in the adjacent neighborhoods—several species of birds long vanquished as breeders have returned. One of these is the yellow-throated warbler. A neotropical migrant (breeds in northerly latitudes, winters in the tropics), the yellow-throated warbler is well-named. Its throat is splashed with a bright, clear lemony coat – a stunning hue that always triggers gasps from viewers. But getting a good view of this bird is tough. They inhabit the upper strata of the tallest sycamore trees, and appear as small

dark specks to earthbound observers. One of our first warblers to return in spring, the yellow-throateds begin materializing in late march, and their re-occupation of breeding turf is complete by April's end. The beautifully clear slipsiding song of the males drifts down from the sycamores' upper boughs, offering evidence to the acoustically literate avianisti that this beautiful bird is back in the house.

Far more conspicuous ornithological evidence of the recovery of our ravines' woodlands are raptors. It seems that just about all of the larger ravines now have their resident pair of barred owls. These charismatic hooters often bring most



FROM THE BOARD OF TRUSTEES

Mirror Lake Golf Course, 1919

By Sherrill Massey

In my research for “Mirror Lake Environs,” I discovered the rich and detailed John Herrick files. The mention of a letter written about a golf course in the ravine roused my curiosity. I asked to see the letter, and after a search Michelle Drobik, the University Archives Reference Archivist found it. It was a lengthy, handwritten letter by a Howard Wentz of Clinton Heights. And it was another goldmine of historical information about the mostly forgotten, perhaps first-ever-golf-course on the OSU campus. Wentz was a student caddy and spoke about the faculty and students who played. It can be found at: <https://library.osu.edu/blogs/archives/>

Here is the verbal map of the course laid out in the letter:

The course consisted of nine holes and the 1st tee off was to the south of Page Hall and the hole south of Orton Hall near where the 2nd tee off drove down near Mirror Lake to a hole. Tee #3 was southward across the lake to the east of the McMillan Observatory (now demolished) with the hole near Mack Hall. Tee #4 was near Mack Hall aiming to the west of the Old Ohio Union (now Hale Hall). Hole #5 teed off south of the Old Ohio Union to West 11th Avenue where hole #6 drove to the corner of West 11th to the corner of now College Road. Hole #7 drove west back to the Ohio Union. Hole #8 was likely near College Road at 12th Avenue, teeing off to the east of the Old Ohio Union. Near hole #8, you teed off to #9 north between Page Hall and the Museum known as The Ohio State Archeological and Historical Society Building.

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



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



LAST CALL FOR T-SHIRTS

We are printing a limited run of Friends of the Ravines' T-shirts. The Logo will be in white printed on the front of a soft-grey cotton shirt. The back of the shirt reads:

Education Stewardship
Wildlife Wonder

contact friendsoftheravines@gmail.com.

Correction

Ravinia Fall 2017/Winter 2018: “Mirror Lake Environs:” See page 1 of cover article. Captain Joseph Vance died in 1824, not 1870 as was stated and William Neil bought the future OSU campus property in 1827 at Vance’s estate sale.

Skunk(ed) Wash Recipe

This is to be done BEFORE any water is put on your pup/cat/kid...yourself.

1 quart hydrogen peroxide
1/4 cup baking soda
2 tsp dishwashing soap

Mix well and apply it to all areas hit. (Don't forget collar or leash, if pet was wearing one.)

Leave on for 5–10 minutes, then wash out.



of the neighborhood out for a look, when they're perched conspicuously or are tending to fuzzy owlets. At night, the raucously loud Who-cooks-for-you, Who cooks-for-you-ALL! calls of the adults reverberate through the ravines, injecting a bit of wildness into suburbia. When a male and female get to caterwauling back and forth, it's as if a band of demons have been released into our midst. The eerie screams and hoots of the amorous owls is enough to frighten the uninitiated back into the house!



Yellow-Throated Warbler

Courtesy of Dominic Sherony

In the past two decades or so, red-shouldered hawks have also reclaimed stakes in our ravines. While closely related to the more common and familiar red-tailed hawk, the red-shouldered is much more a species of well-forested habitats. It is also, arguably, the most beautiful raptor in North America and they've got a lot of competition. Adults are richly marked below with gorgeous orangish-red striping, and the upperparts are cross-hatched with black and white checkering. The namesake red shoulder is a small rusty patch, hard to see and one of the bird's least conspicuous field marks. While these large raptors often live among us, they can be rather secretive and are prone to adeptly concealing their stick platform nests at the junction of limbs and trunk, often high aloft. Red-shouldered hawks become more conspicuous

in late winter and early spring, when amorous pairs soar high aloft, screaming out their affections. These – yellow-throated warbler, barred owl, and red-shouldered hawk – are but three tangible examples of avian benefits derived from long-term ravine conservation. There are many other examples. For instance, the entire suite of highly migratory neotropical songbirds that pass through Columbus on their aerial treks benefit from our well-forested ravines. The wooded gorges provide shelter and food for small songbirds that have come considerable distances – some from as far as South America – and may end up far into Canada, or even Alaska.

Birds are just one reason to protect the ravines of Franklin County. Ensuring their conservation also protects a diverse flora and the water quality of streams, provides convenient urban natural areas for study and relaxation, and conserves some of the more interesting geological features of Franklin County. But the birds provide stark evidence of our conservation successes, or failures.

Jim McCormac is a conservationist and photographer, writes a column, Nature, for the Columbus Dispatch, and has authored or coauthored six books.

EVEN SMALL PATCHES OF URBAN WOODS ARE VALUABLE FOR MIGRATING BIRDS

By Jeff Grabmeier

COLUMBUS, Ohio – Even tiny patches of woods in urban areas seem to provide adequate food and protection for some species of migrating birds as they fly between wintering and breeding grounds, new research has found.

The results are important because, with the expansion of cities worldwide, migrating landbirds increasingly must pass through vast urban areas which offer very little of the forest habitats on which many species rely.

The Swainson's Thrush is one of the more forest-sensitive species, so the fact that it could make do with even small, fragmented woodlots is encouraging. "These findings suggest that remnant forests within urban areas have conservation value for Swainson's Thrushes and, potentially, other migrant landbirds," Rodewald said.

"The good news is that the birds in our study seemed to be finding enough food in even the smaller urban habitats to refuel and continue their journey," said Stephen Matthews.

Matthews conducted the study with Paul Rodewald, an assistant professor of environment and natural resources at Ohio State.

The researches published two related studies: one appeared in the journal *Landscape Ecology* and the other in *The Condor*.

continued on page 4

Both studies involved a secretive relative of the American Robin called Swainson's Thrush (*Catharus ustulatus*). Swainson's Thrushes winter mainly in Central and South America, and travel through the eastern United States to their breeding grounds in the boreal forests of Canada.

The researchers captured up to 91 Swainson's Thrushes at a woodlot on the Ohio State campus while they were migrating through Columbus in May or early June, 2004 to 2007. They then fitted them with tiny radio transmitters and released them at one of seven wooded sites in the Columbus area. (The radio transmitters were glued to back feathers and naturally fell off within a few weeks.)



Swainson's Thrush

Courtesy of Gerry Paille, B.C. Wildlife Federation

The sites had forest sizes that ranged from less than one hectare (1.7 acres) to about 38 hectares (93.9 acres) in size.

Using the radio transmitters, the researchers tracked how long the thrushes would stay in the woodlots where they were placed. If they left soon after release, that would suggest that the sites did not provide the food and habitat that they required.

Results showed that at the five largest release sites, all the birds stayed until they left to continue to their migration north. At the two smallest sites (0.7 and 4.5 hectares), 28 percent of the birds moved to other sites in the Columbus region.

“The fact that a majority of the birds stayed at even our smallest sites suggests that the Swainson's Thrushes were somewhat flexible in habitat needs and were able to meet their stopover requirements within urban forest patches,” Rodewald said.

The study revealed that the birds stayed at each site from one to 12 days, with the average being about four days. There was no difference in how long the thrushes stayed across the seven sites.

“If our study sites differed strongly in habitat quality, we should have seen differences in how long the birds stayed,” Matthews said. “The fact that the stopover duration was similar suggests that all the sites were meeting the needs of the thrushes as they prepared for the next leg of migration.”

The study did find that the later the calendar date, the shorter the thrushes stayed at the sites. That may be because the later-arriving birds would be in more of a rush to reach their breeding grounds, Matthews said.

Weather was also a factor: birds tended to leave the sites when winds were light, following a drop in barometric pressure.

Birds also tended to stay longer if they had lower body mass, suggesting they needed to bulk up more to continue their journey.

While nearly all sizes of woods appeared adequate for the thrushes, they still seemed to prefer larger forested areas, the study revealed.

In one of the studies, the researchers found that in the larger urban woodlots, the thrushes would stay farther in the interior and not get as close to the forest edge. The birds also moved less during a three-day period in the smaller sites, indicating they were more restricted in the area where they could forage for food.

The researchers cautioned that this study was done with just one species, so it is impossible to say whether the results will apply to other species. But the Swainson's Thrush is one of the more forest-sensitive species, so the fact that it could make do with even small, fragmented woodlots is encouraging.

“These findings suggest that remnant forests within urban areas have conservation value for Swainson's Thrushes and, potentially, other migrant landbirds,” Rodewald said.

“Obviously, larger forest patches are better, but even smaller ones are worth saving.”

The study was funded by the Ohio Division of Wildlife.

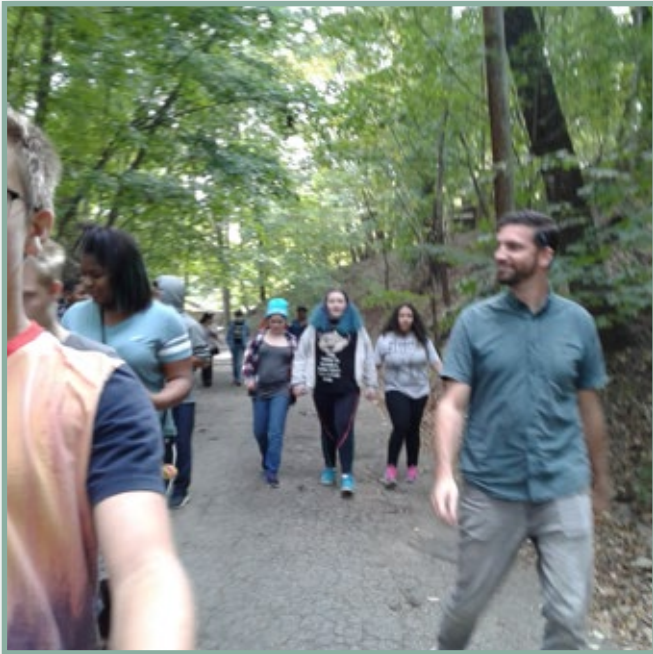
Thanks to

Stephen Matthews, Assistant Professor of Wildlife Landscape Ecology; Paul G. Rodewald, Editor of *Birds of North America*, Cornell Lab of Ornithology; and Jeff Grabmeier, Senior Director, Research Communications, OSU Media & Public Relations for permission to reprint.

Two Brainstorming Creations from Indianola K8 Science Students

By Martha Harter Buckalew

In the autumn of 2017 when Jared Laughbaum's eighth grade science students set off on a walking field trip to Walhalla Ravine in Clintonville, they learned a lot about issues impacting ravines—especially litter, and their teacher stumbled on an idea. Back in the classroom, Laughbaum divided the students into team groups. Their assignment was to develop plans to help alleviate out-of-control litter, specifically in neighborhood alleyways.



Science teacher Jared Laughbaum (on far right)

Friends of the Ravines, Keep Columbus Beautiful, and the City of Columbus Refuse Department were invited to see and hear the students' proposals. Some groups designed garbage cans that couldn't tip over and spill. Others focused on controlling cigarette butts—the number one littering problem in the world. The teams presented impressive hand-made models of their creations as well as entertaining power point presentations.

One team dreamed up a life-sized one-of-a-kind trash receptacle with innocent beady eyes floating over a white-fanged mouth begging passersby to "FEED ME PLEASE!" The ingenious creation by Kayla Jackson, Frankie White, and Katie Coulter seems to be in motion, ready to confront anyone thinking about tossing trash anywhere but through its gaping orifice. And it doesn't need arms for its message to reach out and grab you.

While another team thought about HOW to keep Columbus's urban alleys clean, they also thought about WHO would be doing the cleaning. So they used a local restaurant—Hot Chicken Takeover—as a model, and this team at Indianola K8 came up with this idea:

The City could hire-for-pay previously incarcerated persons and provide them with COTA bus passes to eliminate the expense of getting to and from work. They would ride around the city on the backs of garbage trucks and pick up any litter that spilled from the disposal bins. It could be a WIN/WIN.

Such a proposal could not only benefit the city, but it could also provide an opportunity for jobless persons to become providers. In time, the employment opportunities could be expanded to include managing a social media page and/or coordinating volunteer-pick-up days. This information could be marketed through programs such as *Instagram* which helps connect like-thinking people—in this instance, people who want to make a difference.

Columbus could be more beautiful if its alleys were not littered with trash. The dignity of employment could help remove the stigma incarceration from a small segment of the city's population. It's an optimistic, creative, and constructive idea.

What is there not to like about this comprehensive proposal from Sam Garcia, Lillian Hoyt, and Ademar Ramirez?



Photos courtesy of Alice Waldhauer

END LITTERING IN COLUMBUS

by Sherri Palmer

Columbus' population has grown to 860,090, making it the 14th largest city in the country and the second biggest in the Midwest after Chicago, according to Census estimates. The growth brings an enormous amount of trash and litter. That is why we have released a strategic approach to END LITTERING in COLUMBUS.

When you think of a big city, your mind may conjure up a dense space filled up with housing, businesses, highways, streets, vehicles, and people. Yet, in the middle of "our" big city we are fortunate to have numerous natural ravine sites. These environmental sanctuaries within the urban core offer a home to wildlife, insects, and varied native species. People seeking to exchange city hustle for the picturesque peace of a ravine also bring along food and drink, paper, and cigarettes into our Ravines. It becomes litter. Many of you who prize these ravine gems work closely with Keep Columbus Beautiful to ensure the unique handiwork work of Mother Nature is kept clean and green.

Littering is a socio-economic issue of significant impact costing the U.S. \$11 billion for cleanup each year. Why is litter so difficult to solve? Litter is behavioral. An individual makes a conscious choice to litter. Changing behavior takes time. But we must start the process to END LITTERING in our city. Let's begin with youth. Keep Columbus Beautiful offers curriculum-based litter education programs in our city schools, recreation center summer camps, and other youth-based organizations. The learning portion is then paired with a litter service activity. Next are neighborhoods. Civic and block watch leaders are now trained to conduct a litter index of neighborhood streets and use the results to plan regular monthly litter abatement targeting areas that create a first impression. The service-learning and regular abatement strategy can easily be applied in our ravines.

Designate the Ravines as a "Litter-Free Zone." Ask visitors to take back out any trash brought into the ravine. Locate trash and butt receptacles in key spots. Include messages that



Courtesy of Sherrill Massey



Courtesy of Alice Waldhauer

ask visitors to help keep the ravine clean by picking up and properly disposing of litter.

Encourage school field trips, scouts, youth clubs and families to become familiar with the magic of our city's ravines while actively doing service by picking up litter! Use this to build an appreciation of nature and responsible behavior for the environment at one time. Reinforce their service activity with a talk or materials that illustrates how cigarette butt litter, plastic pop can rings, balloons, etc., pose a hazard to the wildlife that inhabit our ravines. Be creative in ways to attract, reward, and educate these groups.

The KCB Visitor and Supply Center is available to lend tools and supplies free for any litter abatement activity. Working together we can END LITTERING and keep our ravines cleaner and more beautiful for all to enjoy.

For a copy of the city's strategic plan, "End Littering in Columbus," contact KCB at 614-645-2421.

Sherri L. Palmer is the manager of Keep Columbus Beautiful, a City of Columbus community improvement program focused on Ending Littering in Columbus. shpalmer@columbus.gov

Columbus: A City Where Streets Are Paved With Plastic Bottles

By Lawrence Radford

Since our family car blew a head gasket this past May, I have been getting very familiar with the COTA bus system. Riding the bus comes with a certain amount of walking ... *and running!* I walk from home to my nearest stop. I walk, or sprint, from stop to stop when transferring.

During the course of my travels I began to notice a lot of plastic water, sports drink, and juice bottles. I decided to pick some of them up while walking to and from stops and around bus shelters. Even with a trash can nearby, somehow the ground still seems to catch a lot. My effort started out simply as a way to clean up a little bit. Now I have become almost addicted to picking up the plastic wherever I am walking or waiting.

As I became hooked on this activity I started keeping a count of the number of items I picked up each day. I also started taking pictures of the accumulation of plastic water and liquor bottles, assorted plastic and foam famous maker coffee cups, lids, straws, and candy wrappers as well as glass beer and booze bottles. The quantity of this trash is astounding. Occasionally, I push a shopping cart to the grocery store and fill it with these same items. I have easily picked up over 1000 bottles in a few months and at least as many related/assorted other plastic items. Some days I collect over fifty. Our fair city is being slowly buried in this refuse. I walk the same route and ride the same buses day after day, picking up the trash, only to find more the next day. How sad.

How is it healthy to drink bottled water only to toss the plastic containers wherever they land? This plastic, after being run over or crushed, is gradually going to end up in a body of water by way of the drains leading to the streams and rivers all around Ohio. This eventually leads to our Great Lakes and the world's oceans. I always try to find a recycling bin to put the plastic in but unfortunately this isn't always possible. My apartment complex doesn't even have recycling!



Eighth grader Thomas Gott's collage used objects he found on a ravine floor. The letters of future are shaped from litter superimposed on a background of dried leaves. For more info see p. 9.

If we had even a nickel or dime deposit on these items, they would either be returned to the store by the consumer or gathered by someone and turned in for cash. Unfortunately, our leaders in their infinite wisdom have not seen fit to enact any legislation in this area. *How short sighted!* When I was a kid I picked up every glass bottle for two cents and was thrilled when I amassed 50 cents or more. There were no plastic bottles then. Sadly, with the use of plastic the quantity of litter has increased dramatically.

Wouldn't it be nice to see a homeless or unemployed person picking up all of this plastic for the cash rather than holding a sign on a freeway ramp?

The point is, somebody would be picking up the bottles. Of course, if we had to pay a deposit up front, maybe it wouldn't end up in the environment to begin with. Human nature, however, indicates that a certain number of these containers would continue to be tossed on our streets. Sometimes I find full, sealed bottles of water. These I drink and I haven't gotten sick yet.

One thing I have discovered during my travels - I've found only a few pennies and one solitary twenty dollar bill behind a bus stop. If the bottles were worth cash maybe people would be more thoughtful before tossing them out.

I call on Columbus City Council and Mayor Ginther to show some leadership and begin a campaign to clean up our streets. If we each picked up just one or two plastic bottles when we see them a cleaner city would be the result. Smoke if you want, it's freedom of choice. Just *please* stop tossing the plastic cigarette pack wrappers and butts.

Let's stop the problem. C'mon Buckeyes, show some pride in our city. What do you want Big Ten visitors to see when they come to town? Clean up Columbus!

We thank Columbus area resident Lawrence Radford for his timely submission to this issue of *Ravinia*.



2018 Ravine Art Contest Winners

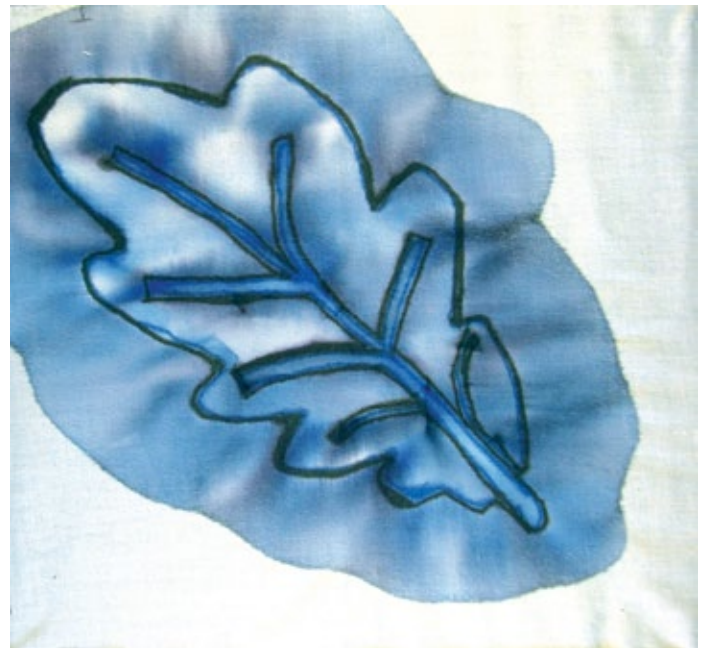
By Alice Waldhauer

The 2018 Ravine Art Contest garnered many wonderful entries illustrating various aspects of central Ohio Ravines. Since 2011, this contest for K-12 students of Franklin County has celebrated the artwork of central Ohio youth, and each year there are surprising entries that show how much kids know about our local ravines. They know ravines are home to wildlife and native plants, that ravines were created at the end of the last ice age and have different ecosystems than the average urban yard, and they demonstrated that they know ravines have problems like erosion and invasive plants. Their artwork also showed us that ravines are beautiful places to engage with nature.

The annual Ravine Art Contest exhibit was on public display at Northwood ARTSpace, 2231 North High Street, Columbus during February and March, and the Award Ceremony honoring the contest winners was held on March 9, 2018. This year, our panel of judges was comprised of Gretchen Cochran, Professor Emerita of Otterbein University, Marya DeBlasi, local designer with ties to the Cultural Arts Center of Ohio and Columbus State Community College, and Ellie Nowels, proprietor of Centipede Graphics and long-time environmental activist. The jurors selected winners from four age categories: grades K-2, 3-5, 6-8, 9-12. The four winners were:



1) Jacob Howell, Grade 2 of Como Elementary, for his colorful owl painting that evokes the essence of an urban owl;



2) Joseph Johnson, Grade 4 of Starling K8, for his oak leaf painting on cloth that stands as a tribute to the giant trees that grace ravine landscapes across central Ohio;





3) Hattie Edinger, Grade 6 of Columbus Gifted Academy, for her 3D collage entitled “Purple Patch” that is a delightful 3-D depiction of violet blossoms exploding from the surface of the artwork. Hattie commented, “I chose wood violets because they soothe and inspire me;”



4) Trevon Pittman, a senior at Marion Franklin HS, for his skillfully executed landscape painting entitled “Walhalla” that captures the beauty of a wooded ravine on a hot summer day.

In addition to the winning works, special recognition was given to Thomas Gott, an eighth grader from Columbus Gifted Academy for his environmental collage entitled “A Possible Future.” The collage was assembled from objects and artifacts gathered from a ravine near his home to create a piece that focuses on a common ravine problem—*litter*. An image of his work can be seen on page 7. The artwork demonstrates that this young artist is interested in local environmental issues. It gives Friends of the Ravine hope for a promising future.



Sterling Jackson (Right of his mother) proudly displays his Certificate of Recognition.



The 2018 cash prizes for the art departments of the schools attended by winners were funded by a grant from the Ohio Association for Arts Education; other contest expenses were made possible by donations from Linda and Eric Burden and REI.

Teachers recognized in association with school prizes include Kassie Hurley-Hook of Como Elementary, Amy Simmons of Starling K8 School, Michelle Alder of the Columbus Gifted Academy, and Maria Francesca Fleming of Marion Franklin High School.



Do You Harbor Garden Enemies?

By Cindy Decker

Wander through almost any of Ohio's natural areas and you will see plants that don't belong, garden escapees muscling their way over native denizens.

It's a costly invasion that threatens the very existence of some native plants and, by extension, the animals relying on those plants. The Nature Conservancy estimates that invasive plants cost the United States economy \$120 billion a year and affect an area the size of California.

Ohio recently banned the sale of 38 plants proven to be bullies in the wild, advancing discussion begun years ago to rein in the spread of known troublemakers.

The newly prohibited plants include many rarely sold today by nurseries—Asian bush honeysuckle and multiflora rose, for example—but that were at one time darlings of the landscape world. The list does include several plants still widely sold.

Callery pear—with named varieties such as Bradford—has landed on the list. Often used as a street tree and known for its striking white bloom in spring, the callery pear has spread from the devil's strips into forests and along roadsides in just a few years.

Until it began its encroachment into the wild, the worst complaint about callery pear was its unfortunate habit of splitting in two during storms. Now you are sure to see it along roadsides and in woodlands.

Another common plant that will be prohibited is purple loosestrife. This striking plant with magenta spires loves the water and quickly overtakes moist areas.

(The ban on both callery pear, a native of Asia, and loosestrife sales is being phased in.)

"These aren't good products," Dan Kenny, Ohio Department of Agriculture's assistant director, plant health division, said of the prohibited plants. "They are, in and of themselves, pests."

Many land stewards would have liked the state to go further in naming invaders, but discussions will continue now that they have begun, Kenny said. "That's the point—to keep the discussion going."

Those living in ravines and removing invasive plants are too familiar with some of the forbidden plants. Cleanup crews often rip out garlic mustard, tree-of-heaven, spotted knotweed, dame's rocket, Asian bush honeysuckle, Japanese honeysuckle, multiflora rose, and lesser celandine.

But we are also well aware of other invaders that didn't make the state's new list.

In central Ohio, other common invaders (as named by the Plant Conservation Alliance's Alien Plant Working Group), include English ivy, wintercreeper, winged burning bush, and privet.

Persuading gardeners to remove some of these plants from well-tended beds can be difficult because they do not generally see the results that might pop up hundreds of yards away.

But I encourage anyone having these plants on their property to remove them. Science proves their unchecked spread.

These 38 plants will be illegal to sell in Ohio after newly adopted rules.

1. *Ailanthus altissima*, tree-of-heaven
2. *Alliaria petiolata*, garlic mustard
3. *Berberis vulgaris*, common barberry
4. *Butomus umbellatus*, flowering rush
5. *Celastrus orbiculatus*, oriental bittersweet
6. *Centaurea stoebe* ssp. *Micranthos*, spotted knapweed
7. *Dipsacus fullonum*, common teasel
8. *Dipsacus laciniatus*, cutleaf teasel
9. *Egeria densa* Brazilian, elodea
10. *Elaeagnus angustifolia*, Russian olive
11. *Elaeagnus umbellata*, autumn olive
12. *Epilobium hirsutum*, hairy willow herb
13. *Frangula alnus*, glossy buckthorn
14. *Heracleum mantegazzianum*, giant hogweed
15. *Hesperis matronlis*, dame's rocket
16. *Hydrilla verticillata*, hydrilla
17. *Hydrocharis morsus-ranae*, European frog-bit
18. *Lonicera japonica*, Japanese honeysuckle
19. *Lonicera maackii*, amur honeysuckle
20. *Lonicera morrowii*, morrow's honeysuckle
21. *Lonicera tatarica*, tatarian honeysuckle
22. *Lythrum salicaria*, purple loosestrife
23. *Lythrum virgatum*, European wand loosestrife
24. *Microstegium vimineum*, Japanese stiltgrass
25. *Myriophyllum aquaticum*, parrotfeather
26. *Myriophyllum spicatum*, eurasian water-milfoil
27. *Nymphoides peltata*, yellow floating heart;
28. *Phragmites australis*, common reed;
29. *Potamogeton crispus*, curly-leaved pondweed;
30. *Pueraria montana* var. *lobata*, kudzu;
31. *Pyrus calleryana*, callery pear;
32. *Ranunculus ficaria*, fig buttercup/lesser celandine;
33. *Rhamnus cathartica*, european buckthorn
34. *Rosa multiflora*, multiflora rose
35. *Trapa natans*, water chestnut
36. *Typha angustifolia*, narrow-leaved cattail
37. *Typha x glauca*, hybrid cattail
38. *Vincetoxicum nigrum*, black dog-strangling vine, black swallowwort

Try not to harbor a fugitive.

City of Columbus Conservation Signs Popping Up!

Along Cliffside Drive on the south rim of Glen Echo Ravine, you can see the recently installed *Ravine Conservation Area* signage. And you should soon see them in other Columbus Recreation and Parks' ravine areas. The fabrication of these signs was made possible, in part, by a Neighborhood Partnership Grant from United Way & The Columbus Foundation. Ravine conservation signs are available for ravine dwellers who want to show that they are good stewards of their land. Cost per sign is \$30. If you are interested in obtaining one, please contact friendsoftheravines@gmail.com.



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

- Friend: \$15
 Sponsor: \$35
 Sustainer: \$50
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 Household: \$40
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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 Events
 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
friendsoftheravines@gmail.com

Supporting Members:

(October 31, 2017 – March 15 2018)

Anonymous	Sharonah Laemmler
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