

# Ohio Invasive Plants Council Newsletter • Spring 2018



### PRESIDENT'S CORNER

Spring is finally here and so are the native wildflowers, along with our "favorite" invasive plants threatening their diversity! As the weather

warms and plants emerge and leaf out, we can plan our invasive plant control efforts – particularly for herbaceous species such as garlic mustard, lesser celandine, dame's rocket, common and cut-leaved teasel. Spring is a great time to control the first-year rosettes of invasive biennial plants.

2017 was a productive year for OIPC. In 2018, we look forward to planning more invasive plant workshops with new partners, while promoting the use of alternative plants. OIPC will continue to work with ODA on their new invasive plant rules which now prohibit the sale of 38 species in Ohio.

If you are looking for opportunities to help control invasive plants in natural areas, one way is to participate in the Ohio Natural Areas & Preserves Association's Stewardship Projects. See the ONAPA website at <u>www.onapa.org</u> for more information on the upcoming 2018 projects.

As always, we look forward to working with any of our partners to plan educational efforts. If you have any upcoming events where OIPC may participate by providing a speaker, please let us know (see our website to contact any of our Board members). If you would like to host an invasive plant workshop, contact us as we are looking for locations for 2018. OIPC is currently working on plans to hold invasive plant workshops and programs in northwest Ohio and in the Dayton area, but details are not available yet. Help us spread the word about invasive plants and visit our website at <u>www.oipc.info</u> frequently! If you need a plant identified or are looking for more information, just contact us through our website and we will respond as soon as possible. Happy spring and keep up your great work!

Jennifer L. Windus, OIPC President & ODNR (retired)

### ANOTHER NEW OIPC BROCHURE AVAILABLE NOW

OIPC just completed a full redesign of its general brochure which promotes OIPC and explains the issue of invasive plants, along with what OIPC does. This brochure will replace an earlier version and was

redesigned by Mary Ann Webster of Spoonbill Designs in Columbus. It was printed in early March and is now available. You may request copies of this brochure for programs and displays by contacting us through our website at <u>www.oipc.info</u>



### UPDATE ON THE NEW ODA INVASIVE PLANT RULES

The new invasive plant rules went into effect in early January. The Ohio Department of Agriculture (ODA) has now declared 38 plant species as invasive in Ohio. These species cannot be sold, propagated, distributed, or imported into Ohio. ODA will be forming an Invasive Plant Advisory Committee early in 2018 to determine how species will be added to this list. Approximately half of the species on the list were on the market, so keep a lookout for these species and be sure to report to ODA if you see any

of them for sale. Only two, Callery pear and European wand loosestrife, have a phase out period. ODA's 11 nursery inspectors are responsible for ensuring these species are no longer for sale, but they can use from gardeners help around the state who may be looking for plants to buy. When doing your gardening purchases this spring, local encourage vour nurseries to use alternatives to invasive plants to replace them. of these Many are recommended in the new **OIPC** alternatives brochure.



Some of the species that have been listed as invasive are:

Berberis vulgaris, common barberry Butomus umbellatus, flowering rush Celastrus orbiculatus, Oriental bittersweet Elaeagnus angustifolia, Russian olive Elaeagnus umbellata, autumn olive Frangula alnus, glossy buckthorn Hesperis matronlis, Dame's rocket Lonicera japonica, Japanese honeysuckle Lonicera morrowii, Morrow's honeysuckle Lonicera tatarica, tatarian honeysuckle Lythrum salicaria, purple loosestrife Ranunculus ficaria, fig buttercup, lesser celandine Rhamnus cathartica, European buckthorn

### Rosa multiflora, **multiflora rose** Typha angustifolia, **narrow-leaved cattail** Typha x glauca, **hybrid cattai**l

Two species have been listed as invasive in the new plant rule but have a phase-out period: *Lythrum virgatum*, **European wand loosestrife** (effective January 7, 2019) *Pyrus calleryana*, **Callery pear** (effective January 7, 2023)

To view the complete list and more details about the rule you can visit: <u>ODA invasive plant list</u>

Jennifer L. Windus, OIPC President & ODNR (retired)

## OIPC'S AWARDS OF RECOGNITION FOR 2017: TOM BORGMAN & MARY KLUNK

# These awards were presented at the 2018 OIPC Annual Meeting on February 23<sup>rd</sup>.



Each year since 2013, the Ohio Invasive Plants Council has recognized someone in the state who has been outstanding in the field of invasive plant control, research, or education, cooperation with OIPC, or other worthy advancement of invasive plant issues. For 2017, the Board chose to recognize two land managers who have dedicated their careers in Metro Parks to both educational efforts about invasive plants and control efforts on Metro Parks properties. Both individuals have worked in the land management field for more than 30 years and are approaching well-earned retirement. It is fitting that both individuals receive this award as they have worked together on many control efforts, particularly for Amur honeysuckle, and often do joint presentations at workshops and conferences. They are both well-known in southwestern Ohio for their expertise on invasive plants and control methods. In addition, both awardees have served on the OIPC Board in the past and continue to support our efforts today.

### **TOM BORGMAN**



Tom has worked for Great Parks of Hamilton County (formerly Hamilton County Park District) since 1986. While he started out as a naturalist and trail technician, even then he was controlling invasive plants and talking to people

about the threats of invasive plants wherever possible. In 1998, he joined the Land Management section as a technician and worked his way up to Natural Resources Manager in 2013. He coordinates a staff of 3-12, depending on the season, and has conducted or overseen invasive plant control on at least 9,000 acres in the Hamilton County Parks. Invasive plant control efforts have included Amur honeysuckle, lesser celandine, Japanese knotweed, Callery pear, garlic mustard, purple loosestrife, treeof-heaven, and Oriental bittersweet. Often this work includes restoration of native plants after the invasive plants have been eradicated. He has a clear passion for land management and his work has led to significant improvements in the region's natural He has conducted many programs and areas. workshops in southwest Ohio and at national conferences about invasive plants and their control. Tom served on the OIPC Board during 2008 to 2010.

#### **MARY KLUNK**



Mary has worked for Five Rivers Metro Parks since 1987. She started as a technician at Cox Arboretum, but soon took a position running the agency's Ohio Prairie Seed Nursery, a collaboration with the Ohio

Department of Transportation. Mary's initiative and success led to her becoming the second person on the agency's Land Stewardship department where she has facilitated many land management accomplishments. Work on invasive plants shifted from a minor focus to a major priority in the mid 1990's. Mary took the initiative to begin a foliar spraying program for Amur honeysuckle. She then partnered with qualified contractors to conduct the work and was always on-site to make sure they did it right. Invasive plants like lesser celandine, garlic mustard, smooth brome, and cut-leaved teasel were also on her list to eradicate. The on-going success of the Stewardship and Conservation department eventually led to its expansion. For the last 10 years, Mary has led a staff of 5-7 people, based at a new and well-stocked service center, designed to support stewardship and invasive control initiatives. Throughout her time with Five Rivers Metro Parks, Mary has led the planning and implementation of invasive control projects on the agency's 16,000 acres. She also conducted educational programs throughout her career, improving awareness of invasive plants and land stewardship. Her sense of humor, compassion for others, and love for the land has made Five Rivers Metro Parks and the Dayton region a greener and more diverse area. She also served on the OIPC Board for two terms, 2010 to 2015, where she served her second term as Vice-President.

Jennifer L. Windus, OIPC President & ODNR (retired)

### LET THE BRANCHES HIT THE FLOOR...AND STAY THERE!

### An Alternative Honeysuckle Removal Strategy May Be Better For Native Tree Seedlings

Most people who work closely with natural areas in Ohio and the rest of the Midwest agree that Amur honeysuckle (Lonicera maackii) is bad news for our forests and should be removed. However, we know relatively little about the possible implications of outright honeysuckle shrub removal. Research has shown that honeysuckle shrubs form dense monocultures that shade the understory and decrease the growth of understory plants, and that native tree seedlings have reduced survival where honeysuckle has invaded. This seems like pretty cutand-dry reasoning for completely removing honeysuckle from our natural areas, but it neglects to consider another major factor of environmental change in the Midwest: over-abundant white-tailed deer (Odocoileus virginiana).

In the Miami University Natural Areas in Oxford, as in many other forested parts of the Midwest, deer densities are 10 - 20 deer/km<sup>2</sup>. These numbers are substantially higher than the estimated pre-European settlement densities of 3-4 deer/km<sup>2</sup>. Because white-tailed deer act as keystone herbivores in deciduous forests, at high population densities they are major agents of change. High deer densities can result in a shifting of plant community structure towards less-palatable species, leaving more-palatable species rare to absent.

Because we have both overabundant deer and dense honeysuckle invasions in the forests of southwest Ohio, there is likely an interaction between the two. Our lab has found that in forest areas where deer have access, survival of sugar maple seedlings planted under honeysuckle shrubs is higher than that of seedlings planted next to these shrubs. Where deer are excluded, sugar maple seedlings have significantly higher survival when planted away from honeysuckle shrubs. The negative effect of deer on palatable tree seedlings may be greater than the negative effect of honeysuckle; honeysuckle shrubs appear to actually facilitate tree seedling survival in areas with high deer densities. Because of this facilitation, I became interested in whether dead honeysuckle shrubs can provide this same facilitative effect and if different honeysuckle removal strategies had differential effects on native tree seedling growth and survival.

In order to investigate these questions, I established 32, 6m radius experimental plots in the Miami University Natural Areas and I assigned the plots to 4 treatments: Control, Felling (honeysuckle shrubs cut and branches left where they fell), Removal (honeysuckle shrubs and branches removed from the plots), and Standing (shrubs killed with a basal bark herbicide of Garlon 4 Ultra herbicide mixed with Arborchem oil). With funding assistance from an OIPC grant, I then planted 16 native tree seedlings in each plot, 4 each of sugar maple, white oak, common hackberry, and American hornbeam. I then measured survival, height, leaf number, and browse for each seedling monthly from June through October of 2017.



An example of the structure provided by the dead honeysuckle branches in one of my Felling plots. Seedlings are planted within the fallen branches. Photo by Kevin Lash

My preliminary findings suggest that the basal bark herbicide (Standing) treatment was the worst for seedling survival. Survival analysis showed that survival rates for seedlings in this treatment ranged from 0% for sugar maple to about 60% for white oaks. Seedlings in Standing plots also had significantly lower maximum leaf number than seedlings in the other three treatments. This reduction in growth and survival of seedlings in the standing plots is likely due to residual herbicide in the soil that the seedlings were taking up over the course of the growing season. Frequency of browse damage was greater for seedlings in the Removal plots than the other 3 treatments. I also found reduced survival of white oaks and sugar maples in Removal plots. Because white oaks and sugar maples are preferred browse for deer, the increased browse intensity, paired with reduced survival, suggests increased browse-related mortality of palatable species where honeysuckle shrubs are completely removed from the understory. I will continue collecting data through June of this year and will reach more definitive conclusions once the data have been analyzed.



Deer pellets next to one of my planted tree seedlings in one of my removal plots. Photo by Kevin Lash

These preliminary findings suggest that not all honeysuckle removal strategies are equal in their effects on native tree seedlings. Basal bark herbicide, while quick and cost effective to apply, seems to result directly in high mortality of native tree seedlings. However, this treatment could be applied in the fall after native seedlings have gone dormant, as foliar spray herbicides often are, to reduce the impact of residual herbicide on native tree seedlings. Removal of cut honeysuckle also seems to be detrimental to survival of native tree seedlings: shrub removal opens up the understory to deer access and the resultant increase in browse frequency can be harmful to palatable natives. Because of the negative implications of these two removal strategies, my suggestion at this point is to control honeysuckle in forests with the felling method. The forest may not look as attractive with tangles of dead honeysuckle stems crisscrossing the forest floor, but our native tree seedlings will be more protected from the hungry mouths of whitetailed deer.

Kevin Lash, Department of Biology, Miami University & 2017 OIPC Grant Recipient

### NATIVE ALTERNATIVE: CROSSVINE

I was recently introduced to a plant from The Dawes Arboretum that I had never learned of in any horticulture plant class nor did I include when teaching Plant ID at Purdue University. The plant is *Bignonia capreolata*, better known as crossvine. It is such an impressive native vine that I find it unbelievable that it isn't on the top 10 list of great plants for Ohio landscapes.

This native vine is an impressive alternative to common invasive vines such as *Euonymus fortunei* (wintercreeper), *Lonicera japonica* (Japanese honeysuckle), *Celastrus orbiculatus* (Asian bittersweet, and *Ampelopsis brevipedunculata* (porcelain berry).



If you are looking for a vine that grows in full sun to heavy shade, has little or no serious insect or disease problems, rapidly covers structures with dark green foliage and displays its best feature; fragrant trumpet-like flowers in color combinations of yellows and reds that attract hummingbirds, this may be a plant to consider in your garden!



I have been so impressed by this hidden treasure that I have recently planted two in my own garden. One is of the straight species and the other one is an available cultivar called 'Tangerine Beauty', which shows pure orange flowers. I can't wait until June to see the hummingbirds buzzing around and enjoying the crossvine along with me.

# David Listerman,

Listerman and Associates, INC & OIPC Board

### **2018 OIPC RESEARCH GRANT AWARDS**

The Ohio Invasive Plants Council is pleased to award a research grant to **Tziporah H. Serota**, an undergraduate student at the University of Cincinnati. Tziporah is working with Dr. Theresa M. Culley to understand "The Movement of Invasive Callery Pear Trees into Forested Habitat." Stay tuned for results of this research project and more, at the next annual OIPC meeting!

We want to thank the 2017 student research award winners Kevin Lash, Meg Maloney, and Kali Mattingly for their poster presentations at the OIPC Annual Meeting in February 2018 at The Dawes Arboretum. Eric Borth, was a 2016 grant award winner for his proposal on "Lethal and sub-lethal effects of the invasive shrub Amur honeysuckle (Lonicera maackii) on an aquatic organism, a field-to-lab experimental approach". Eric's research has been published in <u>Ecoscience</u> (Borth et al. 2018). Congratulations to Eric and the Ryan McEwan laboratory at The University of Dayton!

Thank you to all of the applicants, who wrote thoughtful proposals about important invasive plant issues in the state of Ohio. OIPC strongly encourages future grant applications from land managers and applications with an applied focus that addresses OIPC research priorities which can be found on the OIPC website: <u>oipc.info/research questions</u>

Be on the lookout for a new call for research proposals in fall 2018!

### Jean H. Burns, Case Western Reserve University & OIPC Board

Eric B. Borth, Kevin W. Custer & Ryan W. McEwan (2018): Lethal effects of leaf leachate from the non-native invasive shrub Amur honeysuckle (*Lonicera maackii*) on a model aquatic organism (*Hyalella azteca*), Écoscience, DOI: 10.1080/11956860.2018.1426261

### **OIPC OUTREACH IN NORTHWEST OHIO**

OIPC partnered with Metroparks Toledo on an invasive plant presentation for the Oak Openings Region chapter of Wild Ones on March 13<sup>th</sup>. The presentation, by LaRae Sprow, was held at Olander Park in Sylvania and was also open to the public. 27 people attended the program which was centered around the "Alternatives for Invasive Plants in Ohio" brochure and touched on the alternatives for some of the most common woody and herbaceous plants homeowners in northwest Ohio typically find in their landscapes. OIPC will partner with Green Ribbon Initiative, Metroparks Toledo, and Wood County Parks on May 14, to do an invasive presentation as a part of the Oak Openings Region "Blue Week" celebration. The presentation will be held at Toledo Botanical Gardens and will start at 6:30pm. The presentation will focus around the "Alternative for Invasive Plants in Ohio" brochure. Some native shrubs and herbaceous plants such as blazing star, ninebark, buttonbush, and sand cherry will be available for sale. Proceeds from the sale will go to Green Ribbon Initiative and Wood County Parks. For more information on this program and other Blue Week programs visit www.oakopenings.org/blue-week

### LaRae Sprow, Metroparks Toledo & OIPC Board

## 2018 OIPC ANNUAL MEETING AT THE DAWES ARBORETUM, February 23rd



OIPC held its 2018 Annual Meeting at The Dawes Arboretum, just south of Newark, on February 23rd. More than 100 people attended, including 14 sponsors, most of whom brought displays about their organization or business. Speakers included: Theresa Culley and Kurt Dreisilker presenting about the role of public gardens in invasive plant spread, David Kriska and Ben Piazza speaking about restoration of Mentor Marsh, Dan Kenny providing an update on the new ODA rules on invasive plants, and Jennifer Windus providing an update on OIPC's 2017



accomplishments and 2018 plans. One of the highlights of the day was the 2017 Awards of Recognition to Tom Borgman and Mary Klunk, both Metro Parks' land managers from southwestern Ohio. Another highlight was the cutting of the last Callery pear tree at The Dawes Arboretum during the lunch break. Two new Board members were elected, Dr. Steve Hovick (OSU) and Gary Conley (Green Reach). Despite the rainy weather, it was an excellent day and OIPC was very pleased with the attendance.



NOTE: To see more photos from the Annual Meeting, visit the OIPC website at <u>www.oipc.info</u>.

Jennifer L. Windus, OIPC President & ODNR (retired)

## 2 EASY WAYS TO SUPPORT OIPC!



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#23916 Cincinnati Region (includes Dayton and Lima)

#47319 Great Lakes / Columbus region (rest of Ohio)

### **OIPC Thanks You for Your Support!**

