Ohio Invasive Plants Council

Newsletter May 2015

PRESIDENT'S CORNER:

Happy Spring!

As we welcome spring wildflowers, we also notice an abundance of invasive plants in many of our woodlands. I have been busy pulling garlic mustard in my woods in Knox County lately. This is a good time to control several invasive herbaceous plants in the woods, such as garlic mustard, lesser celandine, and Japanese stiltgrass.

It is my pleasure to serve OIPC as President again, being elected by the Board at our February meeting. We are all excited about this year as our 10th anniversary. We were very pleased with the turnout for our Annual Meeting on February 10th at Highbanks Metro Park, with over 100 people attending. We had excellent speakers, including Hope Taft, and good discussions in our Work Group meetings. We are making great progress on the assessment of invasive plants by the five-person assessment team, led by Dr. Theresa Culley. We expect to release the 2014 list of assessed plants in the next few weeks. We had a good article on invasive plants in the Columbus Dispatch on Sunday, April 5th in the Gardening section. We just submitted a grant application to the Columbus Foundation for OIPC activities in 2015-2016, including the 2016 Invasive Plants Research Conference. We will be planning two educational workshops this year, most likely in northern Ohio. We will offer the small grants program again this year for invasive plant research projects. We are thrilled to have two additional partners helping us with funds for this program - the Ohio Natural Areas & Preserves Association (ONAPA) and the Cincinnati Wildflower Preservation Society. As always, we look forward to working with any of our partners this year to plan educational efforts to improve awareness of the threats of invasive plants in Ohio! If you have any upcoming events where OIPC may participate by providing a speaker, please let us know (see our website, www.oipc.info, to contact any of our Board members).

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

OIPC AT GARDEN CLUB CONVENTION

The Ohio Invasive Plants Council was recently represented at the 2015 Garden Club of Ohio Convention.

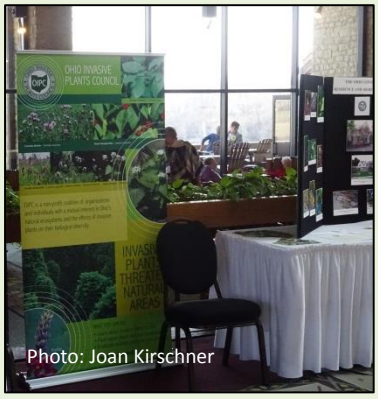

Photo: Joan Kirschner

Their 87th annual meeting was on March 30-April 1 at Deer Creek State Park Lodge in Mount Sterling, Ohio. Much interest was shown not only by the 150 members who attended the event, but by many lodge guests as well! The Garden Club of Ohio, Inc. is a member of the National Garden Club and National Council of State Garden Clubs, Inc.

Joan Kirschner, OIPC Board

ALTERNATIVES TO THE CALLERY PEAR CULTIVARS

This is probably one of the most heated discussions in the horticultural industry. I first want to make a point that though the verdict is still out on the quantifiable effects that pears have upon the environment it is now that we must give the public some reliable alternatives to pears. The Callery Pear was classified as invasive in 2013 by the OIPC Assessment Team. Results are available through our website, www.oipc.info. I think we should be proactive to lessen the economic impact to the nurseries as well as the environmental impact on our native ecosystems. Presently ornamental pears represent 40% of all ornamental tree production for most Ohio nurseries. This is a huge income stream for the nurseries and a very critical financial crop to the success of most nurseries. Continued discussion and social media input about pears' invasiveness could result in lower demand for pears, so it will be necessary to develop a strategy for good alternates.

Below are some trees I have recently observed that may be considered as alternatives:

***Nyssa sylvatica* 'Green Gable', Green Gable Black Tupelo**

A selection made by Alex Neubauer of Hidden Hollow Nursery. It has the classic teardrop canopy of a pear and has incredible deep red fall color. The summer glossy green foliage, the fact that this is a native tree and is an excellent nectar source for bees makes this one of my favorites to offer to the public.

A couple of other cultivars of Nyssa that could be considered are 'Wildfire' (bright red new growth) and 'Tupelo Tower', an Ohio selection by Bill Hendricks of Klyn Nurseries.

***Amelanchier laevis* 'Cumulus', 'Lustre', or 'SnowCloud' , Serviceberry**

Another native species with abundant white flowers in early spring followed by a blue fruit (excellent food source for wildlife) and brilliant fall colors of oranges and reds. This small tree is common in the industry and does have some planting issues, so site considerations will be more critical for *Amelanchier* than some other trees.

***Syringa reticulata 'Ivory* Silk' and 'Ivory Tower', Japanese Tree Lilac**

Not necessarily new to the industry and a non- native species but this fine small tree has great summer foliage and large white flowers in July when most other trees have little interest. Durability and urban tolerance should make this a consideration.

***Acer saccharum* 'Barrett Cole' Apollo Dwarf Sugar Maple**

A native sugar maple with a unique narrowness, dense branching and compact form make this dwarf and columnar Sugar Maple ideal as an alternate for pears. Dark green foliage withstands summer heat followed by fall colors of yellows and burnt oranges. Though the blooms are insignificant, the overall form and shape make it an excellent choice for those landscapes with limited space.

These are just a few ideas and I know there are many more that could be recommended as alternates. To maintain a healthy industry and environment we need to promote alternates just as passionately as we promote the idea of the invasiveness of pears in the industry.

David Listerman, Listerman & Associates, Inc., OIPC Board

Photo credits for this article: *Nyssa sylvatica*; Alex Neubauer
Amelanchier, Syringa, Acer; David Listerman

ROSA MULTIFLORA
A rose that never smelled sweet

Background

Rosa multiflora, or multiflora rose, is a highly invasive shrub species found throughout Ohio, and most of the United States. It is a native to Eastern China, Korea, and Japan, and was first introduced in the 1890s as a rootstock for ornamental roses. However, between the 1930s and 1940s it was promoted as a "living-fence" for pastures, in which it simultaneously provided a natural confinement for cattle and soil erosion control. Because it was observed to enhance habitat availability for wildlife, *R. multiflora* was further promoted in the 1960s as a wildlife enhancement species and planted throughout natural habitats. Despite these multiple environmental uses, *R. multiflora* has become problematic in many areas. This is linked to its ability to rapidly form dense thickets that exclude native plant species, leading to the reduction of native flora. Because it rapidly reduces native biodiversity, *R. multiflora* is listed as noxious weed and/or banned in 11 states[1], and has been identified by the Ohio Department of Natural Resources as one of the top ten invasive plant species in Ohio[2].

Identification and spread

Rosa multiflora is easily identified by its unique fringed/feathered stipule (pictured left), located at the base of each leaf stalk. Like other members of Rosaceae, *R. multiflora* also produces showy fragrant flowers with 5 petals and many stamens that are white (sometimes pink) and are typically arranged in small clusters at the end of flower stalks (pictured above). Pollinated flowers lead to the production of bright, red, fleshy fruits that contain between 4-6 seeds per hip (pictured left). A single *R. multiflora* plant can produce up to 1 million seeds a year that can remain viable for as long as 20 years in the soil seed bank. These fleshy fruits and seeds are a common food source for many bird species, which are the main dispersers of this invasive plant species. *Rosa multiflora* not only spreads via sexual reproduction, but is also able to propagate asexually. When its large arching stems come into contact with the soil substrate, they can produce new root systems leading to the dense, monoculture thickets typically observed in areas where this rose has invaded.

Research

Despite its ability to rapidly spread and form monocultures, little research has been conducted on the ecological and physiological aspects of R. multiflora. Of the research that has been conducted, *R. multiflora* has been found to have increased water-use efficiency (WUE) under high light conditions compared to less invasive roses[3]. Furthermore, *R. multiflora* was found to express specific drought-tolerant traits, including the increased allocation of root biomass under low water availability[4]. Such findings may explain the success of *R. multiflora* in the high-light, edge habitats that it typically inhabits, as well as describe the environments that are most susceptible to its invasion. Continued research on this invasive species needs to be conducted to better understand its invasion success, as well as to improve management and control efforts.

References/Sources

1. *Rosa multiflora*. United States Department of Agriculture (USDA) Plants Database. *http://*plants.usda.gov/core/profile?symbo*l*=ROMU
2. Ohio's top invasive plants, *Rosa multiflora*. Ohio Department of Natural Resource (ODNR) http://ohiodnr.gov/invasiveplants
3. Murphy, J.E., J.H. Burns, M. Fougère-Danezan, and R.E. Drenovsky. Functional traits values, not

trait plasticity, drive the invasiveness of *Rosa spp.* in response to light availability. unpublished data.

4. Murphy, J.E. and J.H. Burns. Density dependent intraspecific interactions do not drive drought tolerance of the highly invasive shrub, *Rosa multiflora* (Thunb). Unpublished data.

Jennifer E. Murphy, Ph.D. Candidate,
Case Western Reserve University

Ms. Murphy was a recipient of a 2013 OIPC Student Research Grant

WEED CONTROL WINDOWS

When forming an invasive plant control plan, the timing of the cutting, spraying or pulling is of utmost importance. Since our goal is not to kill the invasives but to restore or protect the native species diversity, we need to find the window of opportunity when we can be the most effective in controlling the unwanted plant while doing the least harm to the desired species.

In the Great Parks of Hamilton County, we focus our efforts according to the following calendar with excellent results.

February, March and April:

- spray Lesser Celandine with 2oz/gallon glyphosate and 2oz/gallon imazapyr
- spray poison Hemlock with 2,4-D
- spray Teasel and Canada Thistle with clopyralid in recently burned prairies
- mow, cut or basal treat with triclopyr - Callery Pear, Tree of Heaven and Autumn Olive
- mow or cut Multiflora Rose
- pull or cut Garlic Mustard
- cut or pull invasive vines

Ranuculus ficaria, lesser celandine

May:

- pull or cut Garlic Mustard
- spray Multiflora Rose and Callery Pear sprouts
- spray Asian Lespedeza with Metsulfuron methyl
- pull Wintercreeper and Japanese Honeysuckle
- mow or cut Japanese Knotweed

Summer:

- mow patches of Canada Thistle, Teasel and Johnson Grass
- cut flowers off Purple Loosestrife and spray leaves with Garlon 3A or aquatic glyphosate
- spray Narrow leaved cattail with aquatic glyphosate, hand wick leaves in sensitive areas
- cut and treat stumps of Porcelain berry and Oriental Bittersweet
- Spray Japanese Knotweed with imazapyr
- Spray thistle and teasel with aminopyralid

Fall:

- spray Amur and Japanese honeysuckle with glyphosate once native plants are no longer green
- spray thistle and teasel that were mowed in the summer with clopyralid or aminopyralid
- cut and spray stumps of invasive woody plants with triclopyr
- cut and spray stumps of Amur honeysuckle with 25% glyphosate
- basal apply herbicide such as Pathfinder II to Tree of Heaven and other woody invasives

Winter:

- cut and treat stumps of Amur honeysuckle with 25% glyphosate
- basal treat woody invaders
- apply Garlon 3a or glyphosate with a good surfactant to wintercreeper on a sunny late winter day over 55 degrees
- cut and treat stumps of Oriental bittersweet

Every site and season is unique. Consider the soil, water, desirable plants and public perception when creating an invasive plant control prescription. The herbicides listed have worked well in Hamilton County. Follow the label and get more detailed information before using herbicides.

Tom Borgman, Natural Resource Manager,
Great Parks of Hamilton County,
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SUPPORT and SUSTAIN

At this time OIPC has no formal membership fee structure, but donations are always welcome. Your contribution will help support our outreach efforts, as well as enable us to research sources with valuable information needed to assess species using our Invasive Plant Assessment Protocol. Groups or organizations contributing $100 or more in the current year will be recognized on a Financial Supporters page on our website, with your logo and a link to your group's webpage Your donation is tax-deductible because OIPC is a 501(c)3 organization. Checks can be made out to OIPC and sent to OIPC Treasurer **Keith Manbeck**, Box 38, New Knoxville, OH 45871. Let him know if you need a receipt for tax purposes.

CONTRIBUTE to OIPC every time you shop at Kroger

OIPC participates in the Kroger Community Rewards program. After signing up and designating OIPC as the recipient organization, every time you use your Kroger card a donation to OIPC is credited. Those of you who have already enrolled with OIPC designated, re-enrollment was during the month of April. If you have not yet enrolled, OIPC would be grateful for your support. See instructions and further information at the bottom of this OIPC web page, or go to www.kroger.com/communityrewards and enter NPO number 23916. Thank you!

Save the Date: Feb. 11, 2016

Ohio Invasive Plants Research Conference

Nationwide & Ohio Farm Bureau 4-H Center
Columbus