

**LEXINGTON CHAPTER — April, 2018**

<http://lexington.wildones.org>

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The Lexington chapter of *Wild Ones* meets the first Thursday of every month and at other times for special programs. Visitors welcome! Check our website [www.lexington.wildones.org](http://www.lexington.wildones.org) for details.

This newsletter is a publication of the Lexington chapter of *Wild Ones*. It is published nine times a year—March through November—as an electronic newsletter.

If you have any questions, suggestions, or information for future editions, contact Judy Johnson, newsletter editor, at [judydex@twc.com](mailto:judydex@twc.com).

***President's Message...***

Though she doesn't have the name recognition of Rachel Carson or Wendell Berry, possibly nobody has done more to help us understand and appreciate Kentucky forests than Lucy Braun. Scholar, teacher, ecologist and activist, Lucy (1889-1972) spent a lifetime exploring and studying North America's eastern forests. When she found them under threat she defended them, helping establish preserves that we can still visit today.

Her first book, *The Deciduous Forests of Eastern North America*, published in 1950 after a long career as professor of botany at the University of Cincinnati, still serves as the foundational text for anybody intent on understanding the natural environment of this large region. She coined the phrase "mesophytic forest" in 1916 to describe the plant cover in most of Kentucky before European settlers came, referring to the balanced supply of moisture that sustained an extraordinary ecosystem. The forests of our eastern mountains, in particular, are very old because they grow on land that remained free of glaciers during the most recent ice age. This longstanding tree cover produced a deep rich humus that sustained woods of very high quality and great diversity. It is from these ancient forests that the areas to the north were recolonized after the ice receded.

Of course, little is left of the stands of huge trees. They succumbed to the lumberjacks and, more recently, to strip mining. The forest that regrew contains the same species (except chestnuts and soon the hemlocks), but neither in girth nor in height do the trees we see today resemble those the pioneers and early settlers found.

Lucy Braun lived through the later stages of the destruction of these astonishing forests to which she had devoted her life's work. She became an activist, fighting to save trees and engaging others in conservation. She served as a charter member and first female president of the Ecological Society of America from which the Nature Conservancy eventually split off to become a powerful organization for preserving natural lands. She founded the Cincinnati Wild Flower Preservation Society which continues to this day as an influential educational and advocacy organization. She raised money to buy land for conservation. Lynx Prairie, established by Lucy Braun, is one of the finest nature preserves in Ohio. Our *Wild Ones* group plans a field trip there in August.

"Sisters of the Mother Forest" is a one person play that brings to life the remarkable career of Lucy Braun and of her sister Annette Braun, an entomologist and also a scholar, and Lucy's lifelong companion. The script was written by Alice Jones, Director of the Appalachian Studies and Environmental Sustainability and Stewardship programs at ECU. *Wild Ones*, in partnership with the Sierra Club, has invited Dr. Jones to perform her play in Lexington on **Sunday, April 29, at 2:00 p.m., at the Farish Theater of the central Lexington Public Library**. Admission and parking are free. Invite your friends to join you for this entertaining and educational event!



*Beate Popkin*

## Who's Been Eating My Leaves?

By Vicki Reed

Last fall I looked at a leaf on a slender redbud sapling and saw a hole that was so perfectly edged it looked like someone used a metal hole punch to cut it. I figured it was the work of a caterpillar. I was close. It was the work of an insect but the culprit was actually a bee.

This bee is aptly named *Megachile* (which means large jaws). It is a solitary bee that likes to nest in cavities above and below ground. Likely sites include niches in rotting wood, cracks in rocks, pithy plant stems, shells of dead snails and old mud dauber nests. It fills these nesting sites with material it literally cuts out of plant leaves.



There are over 600 species of *Megachile* in North America. Most are indigenous although the alfalfa leaf cutter bee, *Megachile rotundata*, was introduced from Europe in the 1960s to improve pollination of commercially produced alfalfa crops, and the wool carder bee was accidentally introduced to the United States in the mid-20th century. In Kentucky our common precision hole cutter is the indigenous *Megachile melanophaea*, more commonly called mason bee.



Leafcutter bees are moderately sized with stout black bodies ranging from about 5mm to 24mm (similar to an ordinary honey bee). Females carry pollen on the hairs of the underside of the abdomen rather than on the hind legs like other bees. Using her sharp mandibles, a female leafcutter bee cuts pieces of leaves starting from the outer edge and working inward in a very precise manner. She then flies to the chosen site and maneuvers each piece into place, constructing a cigar-shaped nest of several cells. Each cell contains a ball of stored pollen and a single egg. Over winter each larva develops into an adult bee that chews its way out of the nest the following spring.

Although leafcutting bees are very good pollinators, some people regard them as pests because of their attraction to ornamental plants like roses, azaleas, redbud and ash trees, and other plants with thin smooth leaves. The holes left in the foliage detract from the appearance of plants although they rarely harm the plants themselves. A physical barrier like cheesecloth can prevent damage to susceptible plants.

If you would like to attract the genial leafcutter bees, plant any of the following—false sunflower, anise hyssop, swamp rose, black willow, button bush, bee balm, joe pye weed, coneflowers and goldenrod.

## Getting Ready for the *Wild Ones* Plant Exchange

It's little more than a month until Thursday, May 3, the day of our *Wild Ones* Plant Exchange, an annual highlight of our chapter programming. While we accept plants dug up on the day of the exchange and wrapped in moist paper and plastic, the better way of preparing plants for exchange is to pot them up a few weeks earlier. This helps them cope with the inevitable shock of transplanting. Now is the time to dig up all those extras in the garden and put them into containers: seedlings that are neither wanted or needed and rhizomus spreaders that have gone way beyond their bounds. All plants entered in our Exchange must be native and they must be labeled.

Happy digging!

## Planning for Our Urban Trees

By Beate Popkin

At our membership meeting on March 1, city arborist Heather Wilson spoke about Lexington's urban tree program. Heather began her employment at LFUCG in the fall of 2016 when the Division of Environmental Services was created to significantly step up the city's efforts to care for urban trees and natural areas. In January 2018, the Division, led by Susan Plueger, had 35 employees some of whom were part-time.

Urban forestry has emerged as a specialized profession in the last few decades. Trees in cities grow under very different conditions from those in the forest. While they don't face the constant competition of the forest environment, they require pruning to develop a stable structure, to assure safety and to provide clearance for sidewalks and streets. When they decline or die they cannot be left to do so at their own slow pace but must be removed. Urban forestry as an academic discipline and as a profession developed in response to such needs.

Since the 2016 creation of the LFUCG Division of Environmental Services with a regular and dedicated staff, Lexington's care of trees and greenspaces has significantly improved. In the past, a small staff of two city arborists could do little more than enforce tree-related regulations. Their work was essentially reactive, whereas now expanded staff can work proactively as well, something that Heather particularly appreciates about her job.

Not that there isn't plenty of "reactive" work to be done: the need to treat or cut down ash trees as they succumb to ash borer attacks is a huge and ongoing task for the division, as is the removal of honeysuckle. Just this past winter Heather's staff cleared an early "Reforest-the-Bluegrass" site in Wellington Park of the ornamental pear trees and bush honeysuckle that threatened to choke out the native trees that had been planted 20 years earlier. The next step is keeping the invasives down by planting an understory as well as new native trees in the now open spaces. While the honeysuckle, pear trees, wintercreeper and other invasives will have to be monitored for years to come, the staff at the Division of Environmental Services are justly proud of the work done and excited about the future of Wellington Park.

However, as Heather pointed out, her division cannot do it all. Sustained improvement will require input and support from the public, namely, us. She offered an example of active citizen involvement to enhance Lexington's tree canopy. Neighborhoods can ask their council member to support street tree planting or greenspace improvements using discretionary funds available for their districts. This can be a relatively simple way of mobilizing money for trees.

As the Division of Environmental Services is gearing up for the 20<sup>th</sup> anniversary of the original "Reforest-the-Bluegrass" event, staff members are discussing an idea to lead up to that celebration by planting 20 city greenspaces with 20 trees each funded through LFUCG. Planning is still in the preliminary stage, but Heather asked members to let her know about areas in our neighborhoods that would be suitable for a "mini-forest" of 20 trees. If you can think of such a space, please contact her at [hwilson@lexingtonky.gov](mailto:hwilson@lexingtonky.gov) and refer to "20/20 Tree Planting."



*Blue ash on Chinoe Road*

## Garden Design Is Important to Attract Pollinators

By Suzanne Bhatt

Last year, we introduced Adam Baker, UK entomology graduate student under the tutelage of Dr. Daniel Potter. Adam and Dr. Potter had begun work to better understand how plant selection and garden design can affect how monarch butterflies and bees, both declining species, find and use promising sites. Adam's most recent studies focus on identifying which milkweed species might be optimal for inclusion in monarch waystations based on attractiveness to monarchs and various bee species. The researchers also noted the plants' tendency to "misbehave" by spreading beyond their boundaries. The results of this study were recently submitted to the *Journal of Insect Conservation*.

In the studies test gardens at the UK Arboretum were planted with eight species of milkweed varying in height and leaf size: common, narrow leaf, showy, butterfly weed, swamp, broadleaf, whorled and green. Over the course of two growing seasons (2016 and 2017) it was found that monarchs laid more eggs on the taller and broader leafed plants (common, swamp and showy milkweed) than on smaller species, suggesting that the visual prominence of the plant is an important factor in attracting pollinators. This finding confirms initial observations Adam has made in other ongoing studies of garden design. These studies indicate that planting tall conspicuous milkweeds along the periphery of a nectar garden, especially if offset by mulch to increase contrast, attracts approximately twice the number of egg-laying females as do plants that are on the interior or randomly mixed with nectar plants.



Milkweed preferences of the bees tended to be influenced by bee species and size. Butterfly weed and narrowleaf milkweeds attracted the largest overall number and greatest diversity of bees, followed by common, whorled and swamp. Larger plants with bright nectar-rich flowers, such as common and swamp milkweeds, were more attractive to the larger bumblebees while butterfly weed, whorled and narrowleaf milkweeds were more heavily used by the smaller native bee species. Overall, showy milkweed tended to be more frequented by bees, while the green and broadleaf milkweeds, whose flowers are much less conspicuous than other species, had very little activity.

In terms of growth behavior, narrowleaf, whorled and showy milkweed species were most likely to spread outside garden boundaries. While this might be useful in situations where spreading is desired to fill large areas, it may be less desirable in smaller managed garden plots.

Overall, the research confirms that monarchs readily use urban and suburban waystations, even within two weeks of planting. Fortunately, these sites also offer much needed food sources for a host of bee species, allowing gardeners to boost declining bee populations while also helping monarchs. Planting a variety of milkweed species, tall and broadleaved for monarchs and larger bees and shorter for the smaller bee species, as well as a good mix of nectar plants, can create a habitat that will maximize pollinator diversity. Paying attention to garden design, placing milkweed where it is most conspicuous and offset from other plants also appears to increase chances of successful monarch reproduction. Future studies will seek to provide further understanding of such design factors, as well as how design might influence the degree of predator loss on monarch restoration efforts. In particular, the role of the European paper wasp, an invasive species that thrives in manmade structures and feeds on monarch larvae, will be studied to determine whether its greater presence in urban/suburban areas might account for the fewer monarch numbers that are observed in these settings as opposed to rural habitats.

## UK Student Horticulture Club



On Thursday, April 5, *Wild Ones* members will meet for a presentation by Shari Dutton, Horticulture instructor at UK. Shari, who is the Horticulture Club advisor, will talk about the challenges

of growing native plants from seed and preparing them for sale. Shari comes to natives with a background in teaching techniques of nursery production to students seeking careers in landscaping or horticulture. She sees a niche market for native plants that she hopes will expand into the mainstream.

The Horticulture Club has produced a catalog of their plants and Shari will tell us about their sale.

We will meet at St. Michael's Episcopal Church, 2025 Bellefonte Dr. Social time with refreshments at **6:30 p.m.** and presentation at **7:00 p.m.**

## Field Trip Update

*Wild Ones* field trips will take us to many of the best locations in Kentucky to observe wildflowers. If you enjoy finding wildflowers in their prime, photographing them or just spending time immersed in nature, join us for any of the excursions listed on our website—<https://lexington.wildones.org/>.

Some trips to non-public preserves require registration and participation is limited due to parking availability and the sensitive natural environment. To register for these trips, go to [knps.org](https://knps.org), then “Field Trips” and “Registration Form.” (Because the Kentucky Native Plant Society is providing many of the expert leaders, registration is on their site.) Several of the field trips have already reached capacity: Thompson Creek, E. Lucy Braun State Nature Preserve, Eastview Barmens State Nature Preserve and Little South Fork Conservation Area. Others are nearing capacity, so please register soon if you plan to participate in any of the trips to non-public preserves.

Many other outing choices do not require registration. You simply follow the driving directions and show up. Complete information can be found on the *Wild Ones* website.

*Janet James, Field Trip Coordinator*



### Bernheim Arboretum

Sat., April 14 and 28 from 2:00 to 3:30 p.m.—**Wildflower Stroll.** Led by Interpretive Programs Manager Wren Smith, each stroll provides engaging stories on wildflower adaptation, ecology, folklore, and history. **Members—\$10; Non-members—\$12.**

### Floracliff Nature Sanctuary

Wed., April 4 from 1:00 to 4:00 p.m.—**Midweek Wildflower Hike.** Hiking level—Moderate to Difficult due to steep uneven terrain. Led by Floracliff naturalists. **Suggested donation—\$5 to \$10 per person. All events require preregistration.** Email [info@floracliff.org](mailto:info@floracliff.org) with name, phone number and number of people you wish to register.

Wed., April 18 from 10:00 a.m. to 1:00 p.m.—**Midweek Wildflower Hike.** Same information as listed above.

### McConnell Springs

Tues., April 10 at 6:00 p.m.—**Authors Speak Series—Abigail Keam, Murder, Mayhem and History: the Three Pillars of a Josiah Reynolds mystery.** Please call the park to register at 859-225-4073.

### Natural Bridge State Park

Fri. evening, April 20 through Sat. evening, April 21—**Herpetology Weekend.** Herpetology professionals will lead discussions about some of nature's most misunderstood critters: snakes, lizards, turtles, salamanders and frogs. They will also lead field trips into the Red River Gorge area to observe reptiles and amphibians in their natural habitats. For full information contact the Natural Bridge Naturalist Office at 606-663-3575 or email [andrew.stevens@ky.gov](mailto:andrew.stevens@ky.gov).

### Reforest the Bluegrass

Sat., April 14 from 9:00 a.m. to 1:00 p.m. at Veterans Park, 650 Southpoint Dr. Help replant presettlement forests. Wear weather-appropriate clothing and shoes that can get wet. For more information email: [urbanforestry@lexingtonky.gov](mailto:urbanforestry@lexingtonky.gov).

### Raven Run Nature Sanctuary

Sat., April 14 and 22 at 1:00 p.m.—**Spring Wildflowers.** Come see the amazing displays. For more information call 859-272-6105.

### UK Arboretum

Sat., April 28 from 10:00 a.m. to 2:00 p.m.—**27th Annual Celebration of Arbor Day. FREE AND OPEN TO THE PUBLIC.**