

Friends of Sligo Creek

Newsletter May 2021



Photo by Ellen X. Silverberg

Successful "Sweep" and the "Plogging" Challenge

With adaptations for COVID prevention, our Spring 2021 Sweep drew over 400 volunteers who collected more than 275 bags of trash. Many large debris items were also hauled out, including a chair, a barbell, automobile tires, and a hoverboard (at left).

It took many people working together to make this Sweep a success. I would especially like to thank the Sligo Stewards and board members who helped as Site Cleanup Leaders.



A hoverboard is hauled out of the creek during the spring Sweep. (Daniel Marcin photo)

Enjoy an inspiring video celebrating the many volunteers who helped clear the park and some of the significant items they removed: <u>https://youtu.be/oY_mZ53uKMM</u>.

Our section stewards reported that some portions of the park were already fairly litter-free, while other portions still had serious problems even after the Sweep.

If we focus only on cleaning the park twice a year, we will have a limited impact. If, however, the Sweep helps change people's attitudes toward plastic waste at home and in our communities, we can make a bigger impact. If it inspires our communities to take additional action, then it will have a lasting impact that will significantly improve the park.



Students from Sligo Middle School did their part! (Ed Murtagh photo)

One positive development would be getting as many people as possible to start regularly "plogging." This new term, adapted from Swedish (where the practice started), refers to picking up litter during your regular walks or runs. Consider joining the Montgomery County "Plogging Challenge." The county even provides free trash grabbers to participants. Learn more here: plogging challenge.

A friend and I are plogging every Monday morning, and we're making a difference in a small area where we walk in the Sligo headwaters section. If we had a few dozen people plogging weekly in communities all along Sligo, we would see meaningful differences in the creek, our health, and our neighborhoods!



During the Sweep, several people who stopped by our supply tables expressed a willingness to join the county's Plogging Challenge. So hopefully we will soon see a meaningful difference in litter in our communities, the park, and the creek. Let me know if you are willing to start plogging and want to be counted. You might also consider joining our new FOSC litter listsery and

joining the conversation about solutions and coordinating actions. Join the litter list-serv here: <u>https://groups.io/g/fosc-litter</u>.

For more information, email <u>litter@fosc.org</u>. Edward Murtagh, Sligo Stewards Coordinator

May 25: Native Vines and Their Invasive Cousins, Plus Restoration Plantings

Have you ever wondered if a vine climbing a tree is a native species or a non-native invasive? We have a number of native vines throughout the Sligo watershed that are not only beautiful but also provide value to wildlife (and, of course, shouldn't be cut).

What about the tree stakes and plant cages you may have seen cropping up along the parkway and the paved trails? Do you want to know more about those? Learn all about our native and nonnative vines and get the latest info about recent planting restorations in Sligo on Tuesday, May 25, at 7:00 p.m., when we'll hold two talks in one!

Join the meeting at this link: <u>Zoom link</u>.



One of Sligo's most impressive native grape vines (left), as thick as the Red Maple (right) that supports it, just downstream from Dennis Ave. (M. Wilpers photo)

Our featured speakers are both from Montgomery Parks: Corinne Stephens, Weed Warrior volunteer program coordinator, and Dianna Loescher, senior natural resources specialist.

In addition to celebrating our native vines (from three native grapes to Virginia creeper, poison ivy, common dewberry, and more), Corinne will review the eight species of non-native invasive (NNI) vines that certified Weed Warriors are authorized to cut in the park: English Ivy, Japanese Honeysuckle, Mile-a-Minute, Oriental Bittersweet, Porcelainberry, Wintercreeper, Kudzu, and Wisteria. She'll also update us on the steps needed to become a Certified Weed Warrior.



Dianna will take us on a virtual tour of the two managed meadows created in Sligo in recent years (across from the Golf Course and between Dennis and University), as well as the multiple floodplain depression plantings that were installed in January 2018.

She'll discuss the purpose of these floodplain plantings and their installation, maintenance, current status, and future outlook.

Floodplain depression planting along Sligo Creek Parkway just downstream of University Blvd. immediately after installation (above) and later that summer after herbaceous plants were added (Parks photos)



Montgomery County's reforestation law requires real estate developers to cover the cost of tree plantings elsewhere when their projects reduce tree cover but can't accommodate remediation on the site.

Montgomery Parks partners with the Reforest Montgomery program of the county's Planning Department to choose remediation sites and carry out the plantings.

The Parks Department located these plantings in depressions within our creek and stream floodplains, such as wet ditches along the parkway.

Last year, Frederick County passed the state's most tree-protective law. Now activists are pushing Montgomery County in the same direction: not just to have developers replace trees they take down with much smaller new trees in relatively distant areas or to maintain a canopy with fewer trees, but rather to keep from losing a total number of trees from development. Read more about Frederick County's "no net loss" law <u>here.</u>

For more information on this event, contact president@fosc.org.

Cicadas!

By the time you read this, many of the billions of our 17-year periodical cicadas will have begun emerging from their long underground life where they have been feeding on the root sap of deciduous trees, molting into successively larger exoskeletons as they grow.

Having tunneled above ground, they perform their final molt into flying adults in order to sing, mate, lay eggs in narrow branches, and then die, all in a period of four to six weeks.

Some of the nymphs and adults will be preyed upon by a host of hungry animals in Sligo, including foxes, squirrels, box turtles, raccoons, praying mantises, bats, wasps, spiders, robber flies, and birds like Northern Flickers and Wild Turkeys (as well as domestic cats and dogs and some humans), providing a rich protein



source to wildlife.

Above: Empress Cicada of Southeast Asia by 19thcentury illustrator John Westwood. The world's largest, it has a wingspan of eight inches, four times that of our cicadas.

(Biodiversity Heritage Library via Flickr)

The overwhelming majority will leave behind decaying adult carcasses that enrich woodland soils (and can make high-quality compost for your garden).

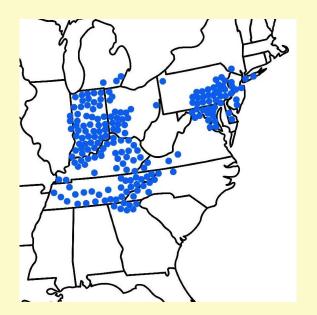
Meanwhile, their extreme abundance (up to 1.5 million per acre) ensures that the vast majority of the cicadas cannot possibly be consumed before they mate and lay eggs, so that their progeny will ensure the species' future.

The new eggs hatch after a few weeks and molt into first-stage nymphs (about the size of a grain of rice), which drop to the ground and tunnel themselves toward the tree roots, where they'll feed for the next 17 years. Some entomologists suspect that a molecular clock in each nymph somehow tracks the annual ebbs and flows of nutrients in tree sap to "count" the years and then, after 17 cycles, triggers the final molt and sends the nymphs burrowing up to the surface.

Right: Geographic range of Brood X emergence in 2021 (WXVU/Gene Kritsky image)

This clockwork cycle was disrupted in 2007 in Ohio when a warm January caused maples to leaf out early. Then a late winter cold snap forced them to drop their young leaves and produce a new set when the weather warmed up again.

This unusual occurence caused two cycles of nutrients to flow into the roots in one growing season, which the cicadas' molecular clocks seem to



have counted as two full years.

That entire brood later emerged a year early. Read more about the cicada's biological clock and other fascinating research in this article (for non-scientists) from the Entomological Society of America <u>here</u>.

There are seven species of 17-year cicadas, all in North America, three of which are in Brood X (Ten) emerging this year. They belong to the genus of periodical cicadas, nicely called *Magicicada*. Two of them have scientific names reflecting the 17-year cycle: *M. septendecim* (Decim Periodic Cicada) and *M. septendecula* (Decula Periodic Cicada). The other is called *M. cassini*, (Cassin's Periodic Cicada), after the 19th century American ornithologist John Cassin.

GREAT RESOURCES

Compared to 2004 (this Brood's last emergence), we have an abundance of online resources to help us appreciate and enjoy this wonder of natural exuberance.

Cicada Safari

Follow the cicada emergence in your neighborhood, or anywhere else, by using this app, created by entomologist Gene Kritsky, who has written ten books on cicadas and teaches at the Mount St. Joseph University (Cincinnati), which runs the app. Zoom in on the map to see as much detail as you want as sightings are logged. Read about cicada biology, behavior, ecology, and evolution, and post your own sightings. <u>https://www.cicadasafari.org/</u>.

Brood X Podcast

The same entomologist behind Cicada Safari, Gene Kritsky, is also the expert voice for this ten-part podcast produced by WVXU in Cincinnati and distributed by NPR. The episodes started in late April and run to early July. See <u>Brood X</u> podcast.

University of Connecticut

Even though Brood X will probably not appear in Connecticut, this website is recommended by the Maryland Department of Natural Resources. It was created as part of a cicada mapping project supported by the National Geographic Society and contains a wealth of information, plus detailed instructions on how to participate in the project. <u>https://cicadas.uconn.edu/#</u>.

Identify the Three Species

Although they may appear almost identical, the three species of 17-year cicadas can be distinguished by close looking. Use the handy ID guide, prepared by Laura Mol, on the FOSC website <u>here</u>. Only Decim has a pale orange square between its eyes and wings. Only Cassin's has a belly (ventral side) that is all black. (The other are two are black with orange stripes.) See the three photos at the bottom of this newsletter. For many more photos showing all three species from various angles, visit this <u>website</u>. Hover your cursor over any photo to see the species' name. Photos are by Sheryl Pollock.

Washington Post

The *Post* is covering the cicadas extensively, with new features appearing almost every day since late April. Just search "cicadas" from their home page

for lots of different perspectives. This article (from April 27) includes animated graphics about their geographic distribution and abundance and the timing of their emergences <u>here</u>. Sligo resident and entomologist John Lill contributed to an article on "Five myths about Brook X cicadas." Read it <u>here</u>.

On Point Radio

Listen to experts discuss cicada biology and evolution, recipes for cooking cicada nymphs, and perspectives on cicada sounds (originally broadcast May 7. <u>https://www.wbur.org/onpoint/2021/05/07/they-sing-mate-then-die-the-wonders-of-the-cicada</u>

Cooking with Cicadas

Entomologist Jenna Jadin, who earned her Ph.D. in entomology at the University of Maryland, provides recipes for appetizers, main courses, and desserts using cicada nymphs. (She discusses them on the broadcast listed above.) <u>http://www.tullabs.com/cicadaworld/cicadarecipes.pdf</u>

Cicada Sounds

Because the three species of Brood X look so similiar from a distance, the easiest way to tell them apart is often by their calls. A short tutorial occurs from 6:05 to 8:50 in the "On Point Radio" broadcast listed above. Compare the calls of the three species, and the female responses, on the page devoted to cicada behavior on the Univ. of Connecticut site mentioned above <u>here</u>. You can also use the audio recordings on the website of Cicada Mania <u>here</u>. The Decim's call is a low harmonized buzz descending quickly at the end, the call lasting a few seconds. The call of the Decula (the least abundant of the three) lasts only a second and consists of very short ticks. The Cassin's call is a high, thin series of short bursts and clicks, descending at the end. This species is known for singing in unison in huge, deafening choruses.

Art and Literature

The Wikipedia article on "Cicada" (<u>here</u>) is rich, not only for biology but also for the seemingly age-old and worldwide popularity of cicadas in poetry, fiction, visual arts, music, and philosophy. For deeper info on the periodical cicadas, specifically, go to the Wikipedia article on periodical cicadas <u>here</u>.

Cicada Poems of the Ancient Greeks

Why not? Find out more here: <u>https://www.atlasobscura.com/articles/o-shrillvoiced-insect-the-cicada-poems-of-ancient-greece</u>.



Cassin's Cicada with all-black



Decula Cicada with faint orange



Decim Cicada with orange

belly and no orange patch behind the eyes bands on the belly and no orange patch behind the eyes

patch behind the eyes and orange bands on the belly (photos by Sheryl Pollock via Flickr)

Upcoming Events

Tuesday, May 25: Native and Invasive Vines + Sligo Meadows and Planting Projects 7:00 pm. Montgomery Parks' Corinne Stephens and Dianna Loescher

Support FOSC

It's simple, secure and helps fund FOSC's work



Need to Reach Us?

President (Mike Smith): president@fosc.org Invasive Plants (Jim Anderson): invasives@fosc.org Litter (Patton Stephens): litter@fosc.org Advocacy (Kit Gage): advocacy@fosc.org Natural History (Bruce Sidwell): naturalhistory@fosc.org Stormwater (Elaine Lamirande): stormwater@fosc.org Water Quality (Pat Ratkowski): waterquality@fosc.org Outreach (Sarah Jane Marcus): outreach@fosc.org Treasurer (Dee Clarkin): treasurer@fosc.org Webmaster (Christine Dunathan): webmaster@fosc.org



Friends of Sligo Creek is a nonprofit community organization dedicated to protecting, improving, and appreciating the ecological health of Sligo Creek Park and its surrounding watershed.

