Madison-Monroe-St Clair Unit Below the Canopy



For Master Gardeners and Master Naturalists

Message from County Director-Amy Cope

I wanted to share this news with you before you hear from someone else. I submitted my resignation as the County Director, with my last day being January 25. This was an extremely difficult decision that I have been weighing heavily for months. I was offered an amazing opportunity with Bunge, where I was previously employed. Lynn Heins will serve as the Interim County Director for the Unit. She is the County Director serving Franklin, Jackson, Perry, Randolph, and Williamson Counties.

I took this role in hopes to make a difference and give back to the community. I believe that held true throughout a very challenging time, even if the impact was for a shorter period of time than planned. The analysis of my decision could go into many details, but to summarize, the demands of serving the needs of our three county unit outweighs the value provided for me and my family. I hope to continue to support the mission of Extension in some capacity in the future. I believe in Extension and want to the best for its community members. Thank you all for your support over the last two years. I look forward to seeing you all in our communities in the future.

Coffee and Tea in 2022

Mark your calendar for the monthly Coffee and Tea Zoom programs. The additional summer and fall dates will be announced this spring.

- January 28 at 8:30 am
- February 21 at 10:30 am
- March 31 at 6 pm
- April 27 at 8:30 am
- May 25 at 6 pm
- June 30 at 1 pm
- July 26 at 10 am

The program provides an informal opportunity for volunteers in the Unit to connect and share what's happening in their garden and ask questions. Elizabeth will share what's happening in her jungle, and volunteers are invited to share a presentation. It might be a presentation on a topic or it could be a project update or slide show. NOTE: We are allowing one additional presentation per month to allow time for group discussion during the programs. Email <u>ruth1@illinoia.edu</u> if you would like to reserve a month.

Naturalist Phenology for January

Compiled by Bill Klunk and Elizabeth Frisbie, Master Naturalists

Be on the lookout for:

- ⇒ Roundheaded Wood Borer larvae, of the beetle family *Cerambycidae*, can be found actively tunneling under the bark of many sick, dying, or decaying trees.
- \Rightarrow The planet Jupiter is visible in the eastern sky just before sunrise. Jupiter will continue to brighten and move closer to Mars (which appears red) through January.
- ⇒ Cackling goose (*Branta hutchinsii*), also known as "white-cheeked goose," is a visitor to our region during this period. These geese have a much higher-pitched voice and cackle instead of honking like Canada geese do.

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January

2022

Illinois Extension

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Continuing Education Programs

Four Season Webinar Series

Register to participate online here.

The program is also available at both offices. Call or email <u>ruth1@illinois.edu</u> to reserve a spot.

- January 25 at 1:30 pm— Spring Ephemerals
- February 15 at 1:30 pm— Organic Gardening
- March 8 at 1:30 pm— Shade Gardening

Everyday Environment Webinar Series

Register to participate online here.

- January 13 at 1 pm— The Recent IPCC Climate Report
- February 10 at 1 pm— Illinois Nutrient Loss Reduction Strategy Report
- March 10 at 1 pm— Return of Large Predators

Small Farms Winter Webinar Series

Register to participate online here. Below is a sample of some topics that might interest MGs and MNs.

- January 27 at 1 pm— Techniques towards Sustainable Vegetable Production
- February 3 at 1 pm— Vining Through Pumpkin Production
- February 17 at 1 pm—Pawpaws
- March 3 at 1 pm—Introduction to Vermicomposting
- March 24 at 1 pm—Growing Great Grapes

CE Series for Master Gardeners

New for 2022, we're launching a continuing education webinar series entirely devoted to Master Gardeners. Because these webinars will be directed just towards your continuing education, we'll be able to go more indepth into topics which will help you better your horticultural knowledge, as well as cover those volunteer specific topics that our other webinars can't necessarily delve into. Webinars will take place LIVE on the first Thursday of every month from 1:00-3:00 PM and they will all be recorded and available on YouTube following the session. Some sessions may take up the full two hours and some may be shorter. You can register for each monthly session here. Only register if you plan to attend live. Everyone will have

access to the recording the day following the session. The first few months of topics are as follows:

- January 13 (Note this is the 2nd Tuesday)- Photo Sourcing and Presentation Tips for Success
- February 3- Urban Tree Advanced Training Program
- March 3- Help Desk 101
- April 7- Common, Easy-to-Diagnose Plant Diseases

2022 Events

Mark your calendar for your favorite annual events. Registration available later this month

March 5—Weekend Gardener, Virtual March 9—Gateway Green Industry, Collinsville March 26—Color of Spring, Waterloo

> Check out the Unit Webpage for the most up to date info. <u>https://extension.illinois.edu/mms</u>



University of Illinois • U.S. Department of Agriculture • Local Extension Councils Cooperating University of Illinois Extension provides equal opportunities in programs and employment. If you need a reasonable accommodation to participate in the program, please contact the Madison-Monroe-St. Clair Unit. Early requests are strongly encouraged to allow sufficient time for meeting your access needs.

Welcome to My Jungle By: Dr. Elizabeth Wahle, Extension Educator



The same garden seen in early winter (I), then again in mid-spring (r)

One of my many pleasures from gardening is watching the garden develop and change over the course of a season. It never ceases to amaze me how stark, yet beautiful the landscape is in its winter rest. With the leaves gone, the beautiful bark and limb structure of the trees and shrubs is completely exposed, becoming the garden's prominent feature. All else is a study in brown aside from an occasional splash of green from the various evergreens.

Over the years, many plants in the garden have been moved from their original site, sometimes more than once to provide a better composition or growing condition. Editing for the winter garden is no exception. The actual editing is usually not done until very late winter to early spring but making note of what needs to be done can be accomplished with every winter walk. For example, winter-blooming hellebores (*Helleborus sp.*) that have spread sufficiently can be slated for spring digging/division and used elsewhere. Make sure you know when best to dig and divide other perennials. Some like peonies, martagon lilies and iris prefer a fall transplanting...not that a spring transplant will kill them, but rather results in a failure to bloom that year. And where you need a plant but don't have one to recycle, shopping is an enjoyable option. Winter is also the best time to see the overall structure and condition of the trees and shrubs in the landscape for assessing pruning needs. In addition to removal of diseased or damage material, identify pruning needs to maintain structure, form and size.



Winter-flowering hellebores

It's also that time of the year when vegetable gardeners start thinking about planting needs for the coming season. Historically, the last average spring frost occurs in the St Louis Metro East roughly between March 20 and April 29, with a median last spring frost date around April 11. Counting back four to six weeks from the median date as a reference for planting very hardy vegetables, the week of Feb 27 through the week of March 13 would be the recommended safe planting window. Planting very hardy vegetables after this window increases the risk of bolting. Gardeners who are direct seeding or purchasing transplants locally have plenty of time, but gardeners who are growing their own transplants need to begin their season sooner by starting transplants five to six weeks before the intended planting date.

Wondering While Wandering January 2022 Elizabeth Frisbie, Master Naturalist

I had a small surprise this morning- an Eastern gray squirrel (*Sciurus carolinensis*) poked its head out of a drey and chattered at me. I was startled because I thought that Squirrels only reside in those leafy woven nests during the warm seasons of the year- that dreys are their summer homes while a cozy nest in a tree cavity provides their winter shelter. Seeing the Squirrel pop its head out and the fact that even though they resemble a pile of sticks and leaves stuck in a tree, every drey in my woods is still in place, despite our recent high-wind storms got me wondering about these leafy nests: how they are constructed and just when are they utilized?



Winter is often the best time to locate dreys since once the leaves have fallen and branches are bare, dreys are highly visible after being almost invisible during the summer months. Generally, dreys will be located at a height of 20'-30' in a tree and are around 12" or more in diameter. It turns out that Squirrels have both summer and winter dreys. Those for summer residence appear loosely constructed and flat. This lighter construction allows for more air flow to keep the Squirrels cooler in summer's heat. Oftentimes, these summer dreys will be lodged among small branch-

es, and constructed in a location where the tree has a high density of leaves so the drey blends in, hidden by the tree's foliage, offering extra protection for the Squirrel's young. In the autumn, the summer drey is either abandoned or adapted for the coming winter's cold. Winter dreys are much larger and thicker and are generally built on a large branch very close to the tree trunk. Instead of looking flat, winter dreys resemble a well-formed ball of leaves. Although these dreys look like a haphazard collection of sticks and leaves, do not fear for the Squirrel inside during frigid weather. Scientists have determined that the temperature of the inner chamber within a winter drey routinely measures 68 to 86 ° F above the ambient air temperature. How can this be? The answer lies in the

many layers of insulation in winter drey construction. For instance, the standard 12" diameter winter drey of an Eastern gray squirrel typically includes around 26 layers of compressed leaves which are flattened, dried and overlapped like shingles. This leaf layer encases a 1 $\frac{1}{2}$ -2" layer of shredded materials (bark, moss, pine needles, etc.) which in turn encircles the inner chamber. Additionally, Squirrels will often share a winter drey for extra warmth. Fascinatingly, although dreys do not look like much, a winter drey of an Eastern gray or Fox squirrel is believed to be the warmest, most wind and waterproof of any animal home- including those



of humans! Thick walls of multiple layers of tightly woven, overlapping and compressed material keep wind, snow and rain from penetrating and air pockets provide insulation that keeps warm air in and cold air out. Squirrels' winter drey engineering is so successful against the cold that their building model is commonly taught during wilderness survival training as the debris hut strategy.



Biologists have determined that drey construction is a complex, fourstage process that is completed by both male and female Squirrels of all ages. After selecting a desirable location, the Squirrel begins phase one of construction by creating the base of the drey, a platform basket of live green twigs that are roughly woven together. Squirrels use their mouths and front paws to carry materials to the construction site and then utilize their heads to bend the twigs, including using their noses to push on stiffer twigs. Front paws (and sometimes

teeth and tongues) are utilized to weave the twigs together. After the basic platform is woven, the base is completed by the Squirrel compacting leaves onto the top of the twig basket platform. During phase two, the Squirrel constructs the core of the drey by adding soft, compressible materials such as moss, feathers, grass, pine needles and damp leaves. These softer components are shredded by the Squirrel which holds an item in its front paws and chews it. After a pile of lining materials is shredded, the Squirrel pushes these soft materials into place with its legs and then shapes the inner cavity by lying in it and turning around and around. This will become the central cavity of the drey, an insulated chamber that provides warmth and dry shelter. For the Eastern gray squirrel, the central cavity is approximately 6-8" across. Third, the Squirrel constructs an outer spherical skeleton shell of twigs, small branches and vines around the insulating core and platform base. This outer

framework surrounds the core and basket platform, thereby keeping the inner materials compressed. Last, the drey is completed by the Squirrel filling in any open spaces with additional materials, such as more twigs, moss, pieces of tree bark and leaves. The entrance hole is left open near the bottom facing the tree trunk for protection from wind and rain. Some Squirrels leave an additional hole as an emergency escape exit. Squirrels may spend 3 days constructing a drey, working for an hour or 2 each day. However, other Squirrels chose instead to complete their drey in a single day. Most Squirrels construct a few dreys at a time, one being their current residence and the others serving as reserve nests so they have a secure location to move to should the primary drey be disturbed or become infested with fleas or mites. Dreys require on-going routine maintenance such as replenishing leaves and twigs in order for the nest to continuously keep the Squirrel safe and dry. (Note: During a winter's walk, you might spot a very flat and loose drey that seems "sloppy" in its construction. These structures are either the abandoned failed efforts of a young, inexperienced squirrel or a fake, "decoy," drey aimed at fooling raccoons and other predators.)

As to why dreys do not blow down even in high winds, this is because the Tree Squirrels who construct them do so in advantageous locations that include some built-in support. In effect, the Squirrels incorporate the existing architecture of the tree into their drey. Most often dreys are built near the tree trunk, at the juncture of trunk and several limbs, or in a crotch where several strong branches meet, especially if the branches form a Y or X shape. Squirrels also construct dreys on a single limb, as long as it is thick and strong. Squirrels may also make use of tangled vines which are tightly woven among the tree's branches to support their drey construction.

In general, a drey is only lived in for a year, maybe two, before it is abandoned, although researchers have observed some dreys in use for over 10 years by multiple generations of Squirrels. Regardless of when they are abandoned, the remnants of a drey are often visible for years. Dreys look the same whether they are constructed by Eastern gray squirrels or an Eastern fox squirrel (*Sciurus niger*). To determine whether it is a Squirrel's drey or a stick platform nest of a large bird, keep in mind that birds typically build their nests closer to the top of the tree and further out on the branches. Additionally, a Squirrel's drey will have plenty of leaves in it while a bird's nest is generally devoid of leaves.

References: References: Forest Preserve District Will County, Hickory Knolls Discovery Center, "How Squirrels Build Their Nests" (NY Times, 1/30/2017), IDNR, INHS, SquirrelArena.com, wildlifeillinois.org, Woodland Trust

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