

GGG

Granville Gardeners Gazette

Promoting Education and Recreation through Gardening Activities

Oxford, North Carolina

www.thegranvillegardeners.org

July 2024, Volume XIV, No.7



Monday, July 22 at 7 p.m. at United Methodist Church Fellowship Hall,
105 W. McClanahan St., Oxford

ICE CREAM SOCIAL !

This is one night to be sure to leave room for ICE CREAM and delicious sides of the other tempting desserts the GG are known for. And you know you can't choose just one – take just a taste of as many as your plate (and stomach) will hold!

SPECIAL ADDED ATTRACTION: PLANT SWIPE!

At our May social, the JCRA plants were auctioned, so we moved the plant swipe to July to keep you from getting home too late. Here's how it works:

Bring a plant, the more desirable the better, and put it on the display table. Each person is given a number. The rules are announced, a number is called, and the person with that number chooses a plant. When the next number is called, he or she may take the plant already chosen or may choose one from the table. And so on. A chosen plant can be swiped 3 times – it stays with the third swiper.

President's Notes

Greetings Members,

The summer has certainly arrived. With the heat and recent absence of rain, watering is my new morning and evening routine. Even though I have several irrigation systems in both the front and back of the yard, I still have an hour's worth of watering. And then there are all the weeds....

The Expo was a success because of the hard work and time many of you put into it. On behalf of your board, I want to thank you for all of your support. As you know, this is our largest fundraiser in support of our NCSU horticulture scholarship. While the numbers are not final, it looks like we will have netted over \$9,000 for the club.

With the Expo now in our rear-view mirror, we can shift our focus to other things! There is much to look forward to in the coming months with events and activities planned. Be sure to check your inbox daily – no members send frivolous emails, so any you receive from a member contains GG news. You wouldn't want to miss out on something good!

Enjoy your summer!

David Quinn

To Do in July

- Try using insecticidal soap for many insects as it is one of the least toxic pesticides available. It is a contact killer so spray insects on the upper and lower sides of leaves and stems.
- Continue fertilizing garden vegetables.
- Fertilize container plants every two weeks with liquid fertilizer diluted from label instructions
- Fertilize figs and keep well watered and mulched.
- Harvest vegetables often, and as harvest is completed, till in material that is not diseased. Put diseased material in the trash, not the compost.
- Begin a fall vegetable garden by planting beans, carrots, and tomatoes.
- Plant broccoli seeds or transplants July 15 – Aug. 15; start cabbage and cauliflower seeds in July to transplant plants August 1 - 15
- Set out plants or sow seeds of Brussels sprouts July 1 to 15, plant carrot seeds July 1 – 15, collard and beet seeds or plants July 15 – Aug. 15.
- If tomatoes have blossom end rot, the water supply may not be even (too dry or too wet periods) and calcium may be deficient as a result.
- Last pinch for mums is the first week in July.
- Cut back summer annuals for renewed growth.
- Sow seeds of cleome, zinnia, cosmos, for a fresh look and continuous bloom till frost. Deadhead to keep them blooming.
- Begin making hardwood cuttings from azaleas, camellias, hydrangeas, and similar shrubs. Water the parent plant 2 days before taking cuttings: Cut 4-5" long semi-hardwood shoots from ends of branches. Treat ends with a hormone rooting powder and stick into a moist peat/perlite mixture, place in shade, and keep moist – a plastic bag will keep moisture in. (Spring growth will be in the semi-hardwood stage by the middle of July)

By Marty Finkel

Bug of the Month: Firefly, or Lightning Bug

Have you been seeing small twinkling lights in early evening in your yard this season? If you are a recent transplant from a distant part of the country, you may have thought your eyes were playing tricks! Many of us know and welcome the adult fireflies, or lightning bugs, in May when they emerge from the leaf litter where they spent their larval stage and begin their unusual signaling. But did you know that there are more than 2,000 species of these fascinating beetles worldwide, and that each of them has a distinctive flashing pattern, color, time of evening, and height from the ground? In fact, of the 36 or so firefly species in six genera found in North Carolina, five “daytime dark fireflies” have no bioluminescence (they use the scent of pheromones to communicate) and two “glow-worms” have glowing bioluminescence rather than flashing. The males of the glow-worm species look like other fireflies, but the females are wingless and look more like larvae with a glowing abdomen.



Adult form of *Lucidota atra* (a species of dark firefly) [Kim H. \(CC-BY-SA\)](#)



Adult *Photinus pyralis* (Common Eastern Firefly) in flight. Photo: [leshibaron \(CC-BY-NC\)](#)

According to Clyde Sorenson, an entomologist at NC State, fireflies glow by combining a chemical (luciferin) with enzymes (luciferases), oxygen, and cellular energy, in special organs in their abdomens. By regulating how much oxygen the organs take in, they can control their flashing. The glowing is a way for the insects to communicate – usually for attracting a mate, but also as a warning to predators that they taste bad. Males will typically start the communication, flying at the correct height and flashing their specific pattern at the appropriate time of evening for the species. Females usually stay on the ground or in brush and give an answering flash if interested.

The bad taste of the majority of fireflies is such an effective predator deterrent that many other insects, mostly beetles, mimic them in coloration. Additionally, many species of *Photuris* fireflies cannot not make the bad tasting chemical. The female *Photuris* have found an effective way to solve the problem; after mating, they mimic the flash pattern of a *Photinus* female and eat the unlucky male that answers her call. Then by transferring the desired chemical to their blood, they can protect themselves and their eggs by bleeding if attacked. The *Photuris* female is the exception to the rule as most adult fireflies rarely eat.



Adult female *Photuris* species. Photo: [Kim H. \(CC-BY-SA\)](#)



Remains of *Photinus* species on leaf. Likely eaten by *Photuris*. Photo: [Will Kuhn \(CC-BY\)](#)

Some of the better-known fireflies of North Carolina live in our mountains. *Photinus carolinus*, the “synchronous firefly,” puts on such a show of synchronized flashes that the National Park Service and Grandfather Mountain have instituted a lottery system for tickets to manage the numbers of visitors. Unlike the synchronous firefly, the blue ghost firefly (*Phausis reticulata*), which is also found in the mountains, has a constant glow for up to a full minute. The males hover and drift just above the ground

with their blue-green light.



Light trail of the Blue Ghost firefly (*Phausis reticulata*). Photo: [pokeandviolet \(CC-BY-NC\)](#)



Adult male Blue Ghost firefly (*Phausis reticulata*). Photo: [Leila Dasher \(CC-BY\)](#)

Recently Sorenson has discovered what he believes to be a new species, similar to the blue ghost, but smaller with a slightly dimmer glow, far from the mountains in the Triangle counties of Chatham, Wake and Johnston. Sorenson’s discovery is exciting, and our help recording sightings is needed. Read about the new species and participate in some citizen science next year when the

adults will be most active (mid-April to mid-May) by joining the [Carolina Ghost Hunt](#).

By mid-July, the firefly show is over. The eggs have been laid in moist soil, duff, leaf litter, or rotting wood and will hatch two to three weeks later. The larvae spend up to two years eating snails, slugs, and earthworms. (Most are carnivorous though some species also eat vegetable matter on the ground.) A moist habitat, often leaf litter - the reason to “leave the leaves” - is critical for this species. When the time is right, larvae find a suitable place to pupate. They may stay in leaf litter, burrow just under the soil, attach themselves to herbaceous plants or wedge themselves in the furrows of tree bark. Ten days to several weeks later, the adult fireflies emerge, and the cycle begins again. The adults only live about two months.

Fireflies, like many of our insects, are declining in number due to habitat degradation, light pollution, pesticide use, and climate change. There is a plethora of information available online about how to help fireflies and our natural world, in general. Quick and easy changes you can make at home include not introducing earthworms to your garden (leave them in your worm bin; they are not native to North America), leaving some areas with spent plant matter (good larvae habitat) over the winter, not leaving outdoor lights on all night (to not disrupt the mating display of light), not using pesticides (good bugs are killed along with the bad), educating your friends and neighbors. You can also be a citizen scientist by recording any firefly sightings on the [Firefly Atlas](#) and, for the new Piedmont species, on the Ghost Hunt site mentioned above. A thorough overview of fireflies and how to help them can be downloaded from the website of the Xerces Society for Invertebrate Conservation: [Guidelines for Protecting Fireflies](#).

Compiled by Kat Ravenel

Sources: Helen Yoest’s [Fun Facts about Fireflies!](#); NC State Magazine, [Chasing a Ghost](#); NC State Magazine, [How Fireflies Glow – and What Signals They’re Sending](#); Homegrown: NC State Extension, [Discover the Secret Science of Fireflies](#); NC Native Plant Society, [Native Plants Make a Difference for Lightning Bugs](#); NC Cooperative Extension, [Blue Ghost Fireflies- Do You Have Them in Your Woods?](#); Frank Graff, [Firefly Magic is in Danger](#); Larry Hodgson’s blog, [Laidback Gardener](#).

Q: *My tomatoes are really slowing down in this heat. Are there any heat tolerant tomato varieties?*

A: Yes, and I noticed a difference in a couple one recent morning when I was watering. On one variety (my favorite Kellogg's Breakfast), an heirloom that is large and solid, most of the trusses of flowers looked like something had nipped the flower off. On closer inspection, I saw dried flowers that had fallen onto leaves below the truss.

Another variety, one of the micro tomatoes that can be grown on a sunny window sill, was covered with trusses of intact flowers. Another variety also still had flowers.

I looked up what happens to tomato flowering and yield when the temperature is very hot, and in a couple of previous GGG articles had reported that the pollen isn't viable when the temperature is 90 degrees or above for two days straight. But I had not come across flowers that had become detached from their stems and fallen onto the leaves below.

In this photo on the left, you can see "peaks" – the point at which the stem bends down. The plant on the left has a tomato forming, and the two on the right have blossoms. If you were looking at the plant, you would see a line at the peak, and when the plant becomes too stressed (heat, lack of water, no pollination), that line breaks and the flower falls. Next time you're watering, look closely – the abscission line is normally a little thickened; after all, it has to be strong enough to hold the tomatoes until picked.



As mentioned in previous tomato articles in the GG Gazette, it's the larger beefsteak-type tomatoes that are more susceptible to loss of flowers during extreme heat. Cherry or grape tomatoes are the easiest to grow, and most will tolerate high temperatures and humidity. Since July is not the time to plant tomatoes, check the internet in February or March for heat-tolerant varieties.

Q: *At the excellent June program talk 'Habitat Gardens' by Dale Batchelor, she mentioned keystone species. Someone in the audience asked for a definition, which she gave, but I missed it. Can you refresh my memory?*

A: I didn't write down the definition she gave, but I found this one which I think illustrates the meaning:

"A keystone in an arch's crown secures the other stones in place. Keystone species play the same role in many ecological communities by maintaining the structure and integrity of the community." The quote is by Stephen C. Wagner, Department of Biology, Stephen F. Austin State University. Dale told us that if we had a mature oak on our property, we had already begun a habitat garden, since several kinds of oaks are keystone species.

I like to think of oaks as the pinnacles of power, especially after reading Margaret Roach's *New York Times* March 31, 2021 article "Why You Should Plant Oaks," in which she quotes from several of Dr. Doug Tallamy's books. Dale also referred to Dr. Tallamy several times, one of which was to tell us where we can find keystone species in our area. You can find it in his [Homegrown National Park](#) website, where you will also find a wealth of information.

Tallamy's research, Roach reports, finds that "Oaks support more life-forms than any other North American tree genus, providing food, protection or both for birds to bears, as well as countless insects and spiders, among the enormous diversity of species. . ." She continues:

"Consider a few of the oak's credentials.

Oak trees support 897 caterpillar species in the United States. At Mr. Tallamy's 10-acre property in southeastern Pennsylvania, he has recorded 511 — dwarfing the number supported by other native trees there, including maples (*Acer*, interactions with 295 caterpillar species), ironwood (*Carpinus*, 77) and sweetgum (*Liquidambar*, 35).

Of the food eaten by insects, birds and other animals, 75 percent comes from a few key genera — and oaks lead the list.

Birds forage longer in oaks (which, again, is often about caterpillars — high-value food especially during breeding season, when they are prime baby food).

An oak can produce three million acorns in its lifetime — tons of protein, fat, and carbohydrates — and a mature tree can drop as many as 700,000 leaves every year. The resulting litter is habitat for beneficial organisms, and the tree's canopy and root system are important in water infiltration, helping rain percolate instead of running off, and purifying it in the process. Oak trees also sequester carbon.

As Mr. Tallamy puts it: 'A yard without oaks is a yard meeting only a fraction of its life-support potential. . . ' " [Douglas W. Tallamy](#) is an entomologist and professor at the University of Delaware.

Using the Homegrown National Park site, I learned that these are keystone trees in our area (Southeastern USA Plains): Black Cherry (*Prunus serotina*), Blackjack Oak (*Quercus marilandica*), Post Oak (*Quercus stellata*), White Oak (*Quercus alba*), Black Oak (*Quercus velutina*), Black Willow (*Salix nigra*), and Red Maple (*Acer rubrum*).

A list of Doug Tallamy's books, easily found online:

- *Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard
- *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens, with Rick Darke
- *The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden, with Rick Darke
- The New American Landscape: Leading Voices on the Future of Sustainable Gardening, with Rick Darke
- **The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees

by Marty Finkel from Stephen C. Wagner as cited; from Margaret Roach article as cited; from Homegrown National Park site

* also available from the Granville County library system

** also available from the NC Cardinal library system by inter-library loan

Community Programs

The staff of **Richard Thornton Library** (including GG member, Brittnee Worthy) have put together a number of plant-related demonstrations, lectures, workshops, and a field trip for the next few months. No registration is required, except for the Aug. 21, Plant Walk. For that one, contact the library - (919) 693-1121 or melanie.baldwin@granvillecounty.org - to reserve a spot. The library is at 210 Main St., Oxford.

July 10. Cooking Kudzu: Kudzu, kudzu everywhere! Did you know that this invasive plant lining our roads and creeping into our gardens is edible? Join librarian Mel at Thornton Library on July 10 from 1-2pm to learn how to identify and cook kudzu before it takes over your yard too! Learn, taste, and take the recipe home!

July 24. Cooking Greens: Do you ever see greens in the market, or even the library food fridge, and you're not quite sure how to prepare it? Come join Thornton Library on July 24 from 12 -1:30pm to learn how to prepare three dishes with unique vegetable greens. Expand your recipe list and get inspiration for quick and healthy dishes with greens like rainbow chard, kale, and more! Watch the prep, taste, and take home the recipe!

August 7. Introduction to Foraging: Join librarian, herbalist, avid forager, and member of the Granville Gardeners, Brittnee Worthy, on August 7 from 4-5pm at Thornton Library for a workshop on plant identification and local foraging. Learn some beginner basic botanical identification, how to forage ethically and safely, as well as a selection of local plants that you can harvest and eat!

August 14. Saving Seeds: Got seeds? Join Johnny Coley, of the Granville County NC Cooperative Extension, at Thornton Library on August 14 from 2-3pm to learn the what, when, where, and how of saving seeds from your own garden!

August 21. Plant Walk: Want to learn about plants and get some exercise too? Meet librarian, herbalist, and forager Brittnee Worthy on August 21 from 4-5pm for a plant identification and foraging walk at the Ledge Creek Conservation Trail to learn about how to spot and use edible plants in the area! *Attendance capacity is limited* for this event to ensure safe walking on the trail. Let us know if you are interested, so we can reserve your spot!

September 4. Life on a Blueberry Farm: Ever wonder what it would be like to have all the blueberries you could possibly eat? Or maybe you want to start your own farm? Join local blueberry farmer Celine Koropchak on September 4 from 12-1pm at Thornton Library to hear about her experience owning and living on a blueberry farm in our area.

Stovall Farmers' Market is held at the Stovall Branch library every 2nd and 4th Thursday, 3:30-6:30 p.m. in their parking lot at 300 Main Street, Stovall. The Farmers' Market will run through October.

Seed Library: Thornton, Stovall, and South Branch libraries have seed libraries where you can donate, or find seeds to take home and plant: [Seed Library](#).

Farm to Fridge. A program Thornton, Stovall, and South Branch libraries have where you can donate your produce to help people in need: [Donate Produce](#). (Not shown, but Stovall Branch has a fridge.)

The NC Cooperative Extension 2024 Master Gardening training course for Granville/Person Counties begins August 8 and runs through November 21. Classes meet Thursdays from 9-12 at Berea Volunteer Fire Dept, 1213 US-158. Contact Johnny Coley: 919-603-1350, or jwcoley@ncsu.edu.

Compiled by Kat Ravenel. Thornton Library program descriptions by Brittnee Worthy.

Update on the Betty Zielstorf Memorial Garden at the Oxford Post Office

The Granville Gardeners installed, and have been maintaining, the garden at the Oxford Post Office since 2012. It was made possible by the perseverance of Betty Zielstorf, a former president of the GG, who jumped through hoops to get the federal government to allow us to put in a garden at the local Post Office, and who unfortunately passed away soon afterwards.

For several years, Peter G. has been in charge of the garden, with the help of a dedicated crew of four or five men which has since grown to a larger group of men and women volunteers. Members of the community seem to appreciate the effort and offer compliments and praise as they walk by. Peter says one of his goals is to put a smile on the face of everyone going into the Post Office. Now he feels the time has come to pass the privilege of coordinating the garden on to someone new, and we are fortunate that Vickie J. has accepted the mission. She will be able to ease slowly into the position with Peter to answer any questions. Many thanks are due to both Peter and Vickie!

Some recent photos of the garden:



By Kat Ravenel

Granville Gardeners at the Bee Jubilee

The main mission of the Granville Gardeners is education, and we often set up a booth at local events to promote the club and to answer questions. At the recent Bee Jubilee, on June 22, several of us took a turn at the table we had set up with a pollinator theme. I don't think it's any accident that the bee club chooses the weekend of Pollinator Week to hold their event.



We passed out butterfly stickers to children and talked to them and their parents – and anyone else who came by - about the importance of honey bees and native bees and other pollinators to agriculture, and also about the necessity of planting native plants to care for the native pollinators and for our entire ecosystem. Several people took GG cards and brochures and thanked us. Look for upcoming events to volunteer for. It was an enjoyable way to spend a couple of hours. After all, when do gardeners not enjoy talking about gardening to people?

By Kat Ravenel

NEW FEATURE!!

Look for **MEMBER MARKETPLACE** starting in the August issue.

Do you sell what you grow? We want to know! Starting next month, we will have a marketplace listing so our members can find your plants and produce and other garden-related items. Tell us what you've got.

Member Marketplace Guidelines:

Please tell us by the 26th of each month in order to have your listing in the next month's issue.

Write a paragraph or a list, and we'll publish it as you wrote it. Some information to include might be:

- your name
- location
- what you sell, in general
- what you will have in the month ahead
- any specials you will be having

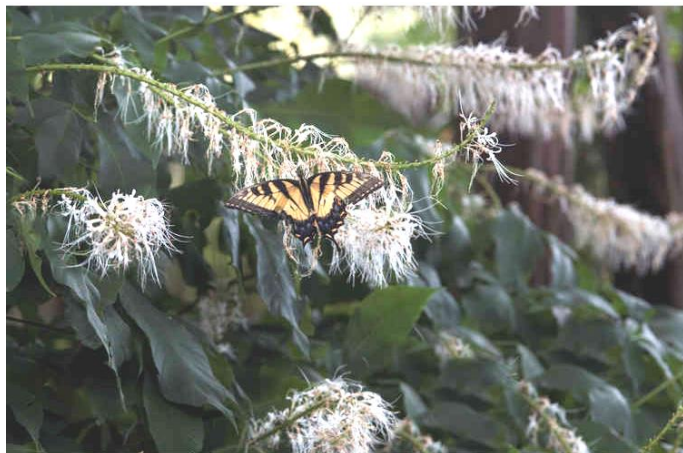
Keep in mind that the GG Gazette is published on the internet for anyone to see. Members can already find your contact info in the directory. Be sure to tell us if you also want that info online in the Gazette.

IF YOU HAVE A BUSINESS THAT ISN'T GARDEN RELATED, WE WILL LIST IT

Follow the guidelines for the garden-related listings, including information and/or description about what you are selling. **Send it by the 26th of each month** and it will be listed in the next month's issue.

Send to: Kat Ravenel ksravenel@gmail.com OR Marty Finkel martyfnkl@gmail.com

PLANT OF THE MONTH
LATE BOTTLEBRUSH BUCKEYE (*Aesculus parviflora* f. *serotina*)



Var. *serotina* is native to Alabama but is winter hardy throughout Zone 5. It is a natural variant and differs from species plants by maturing to a larger size (eventually to 20' tall), producing long, white, fluffy flower clusters (to 30") and blooming about 3 weeks later. The Missouri Botanical Garden says the species “. . . is noted for being one of the best summer-flowering shrubs for shade areas. It is easily grown in average, evenly moist well-drained soils in partial to full shade.” It is intolerant to dry soils, especially in the first few years after planting. After flowering, it produces glossy, pear-shaped nuts (buckeyes). The foliage is a rich yellow in the fall.

Also in Bloom this Month

* denotes native plant

Note that bloom times vary, depending on climatic and meteorological conditions, and many plants bloom several months in a row (and sometimes rebloom)

- | | |
|-------------------------|-------------------------------------|
| Allium | Asparagus fern |
| Lily of the Nile | Agave* |
| Hardy Dutchman's pipe | Butterfly bush |
| Beautyberry* | Canna lily |
| Crinum lily* | Dahlia |
| Echinacea (coneflower)* | Rain lily |
| Sunflower* | Hibiscus* |
| Hosta | Hydrangea* |
| Spider lily* | Oxalis |
| Magnolia* | Four o'clock |
| Water lily | Summer wisteria |
| Firecracker vine | Passion flower* |
| Balloon flower | Winged sumac* |
| Rose | Salvia* |
| Hardy gloxinia | Little bluestem (ornamental grass)* |
| Stokes aster* | Toad lily |
| Ironweed* | Plumleaf azalea (deciduous)* |
| Blackberry lily* | Blue gramma (ornamental grass)* |
| Mosquito grass* | Grass pink (orchid)* |

Compiled by Marty Finkel from JCRA Showtime listing

Photos of Some Other Plants in Bloom This Month



Asparagus fern



Summersweet Clethra
'Ruby Spice'*



Rattlesnake Master*



Carex 'Sparkler'



Texas clematis*



Montane pineapple lily



Gloriosa lily (vine)



Daylily



Velvet pink banana



Chinese foxglove



Swamp coneflower*



Hydrangea arborescens*



Oxalis



Carolina phlox*



Chaste tree 'Shoal Creek'

Selected by Marty Finkel **Photos:** JCRA Photo Collection *Exceptions:* Hydrangea arborescens, Missouri Botanical Garden Plantfinder; Phlox carolina, NC Ext. Gardener Plant Toolbox peganum CC-BY-SA 2.0; Swamp coneflower, NC Ext. Gardener Plant Toolbox Lucy Bradley CC0