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THE GARDENGOER

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P. O. Box 2074, Mandeville, Louisiana 70470
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VOLUME 22 Issue 5 September/October2020

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The hum of the bee is the voice of the garden.

Elizabeth Lawrence

Photo by J Blazek

Larvae and Nymphs – Similar and Different

Larvae and nymphs are the immature forms of garden pests that will compete with you for your vegetables and ornamentals. Some will grow up to be adults that also want their share of the results of your labor. While other adults will feed on nectar only.

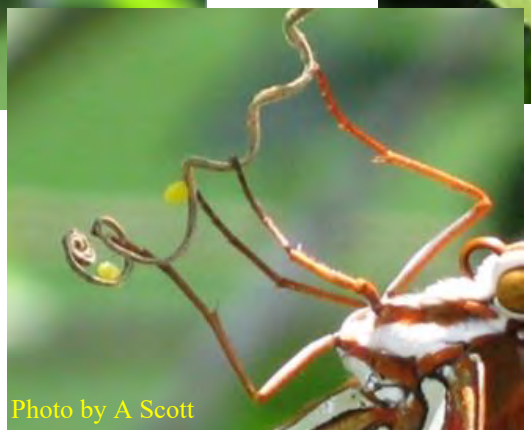
It may come as a surprise that not all larvae are worm-like, and not all insects go through a pupal stage. Your ability to identify both immature and adult forms of insects will help you decide if you should eliminate or tolerate them. You will also notice that some adult-looking insects will scurry away rather than fly away at your approach.

An on-line search for "leaffooted bug larva" and "leaffooted bug nymph" will find very similar images for larvae and nymphs. And then there is the instar, an interesting in-between stage. Kentucky's Department of Entomology and the University of California both provide clear definitions for larva and nymph.

Larva (or larvae for more than one) is the active, immature stage for insects undergoing complete metamorphosis. The four stages are egg, larva, pupa and adult. Three of the stages are are seen below. The pupa stage is seen on the next page. The larva looks nothing like the adult as you see in these two photos. The larva for a butterfly is a caterpillar.

An adult gulf fritillary butterfly laying an egg on a passionflower tendril. Adults feed on nectar.

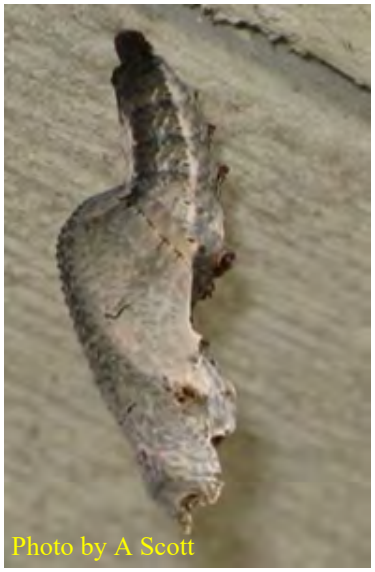
Our native passionflower (*Passiflora*) is the host plant for the gulf fritillary caterpillar. The caterpillar feeds on its leaves.



Close-up of eggs on the tendril.

Larvae and Nymphs – Similar and Different, continued

Seen below is the larva progressing from its final molt into a pupa. The third photo is the chrysalis of the gulf fritillary. Transformation into an adult occurs inside the chrysalis.



Entomologists use five descriptive classifications to describe the general appearance of larvae:

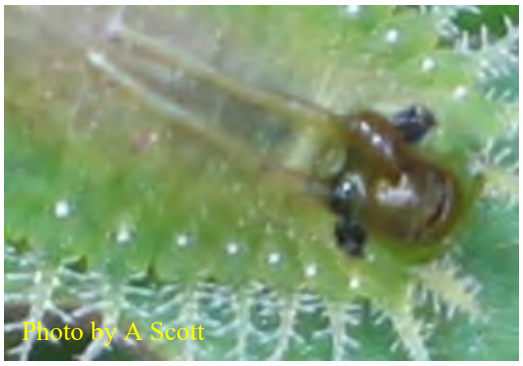
1. Looks like a maggot.
2. Similar to a caterpillar.
3. Resembles some kind of grub.
4. Appears worm-like but has tiny legs.
5. Does not look anything like a worm. Their bodies are elongated and slightly flattened, with well-developed legs, antennae, and cerci. The mouthparts face forward.

Cerci are paired appendages on the rear-most segments of many arthropods, including insects and garden centipedes. Many forms of cerci serve as sensory organs, but some serve as pinching weapons or as organs of copulation. They are rich in sensory cells and may be of importance in guiding copulation and oviposition. In many insects, they simply may be vestigial structures without function.

Several references I have consulted state that the majority of larvae look like worms. With my erroneous, preconceived notion that almost all larvae resemble worms, that statement is misleading. I interpreted the majority to mean most. But only a little over 50% of the members of classification groups one through four appear worm-like. Classification group five which does not look anything like a worm includes over 40% of larvae. So clearly, only a slight majority of larvae are worm-like in appearance.

Larvae and Nymphs – Similar and Different, continued

This larva of a clavate tortoise beetle is one of the insects that undergoes complete metamorphosis. It is in the forty plus percent that do not look worm-like. I found some on one of my tomato plants in Folsom this spring. They carried a frass canopy on their body. The frass umbrella is produced by the larva through an extension of its intestines ending above its back. Some experts think that this umbrella discourages predators. I gently removed the umbrella and took the photo before eliminating the larva. The anal opening is visible and appears to be smiling.



A **nymph** is the immature form of an insect undergoing incomplete metamorphosis. More on complete and incomplete metamorphosis a little later. We will not observe a nymph pupa (pl. pupae) because they do not go through this resting or transformative stage like larvae. The nymph resembles the adult but cannot fly. It is the reason we often see them scurrying around a tomato and why they do not fly away as we approach. This makes it easier to corner and squish them. Adult and immature nymph forms usually use the same food sources. The nymph of a leaffooted bug is similar in appearance to the adult. They both have piercing/sucking mouth parts. This makes them difficult to eliminate with pesticides unless we score a direct hit. They do not consume leaves or the surface of fruit. They bypass any residual poison we apply by penetrating directly into the fruit.

An **instar** is each developmental stage of an immature larva or nymph between successive molts. An instar sheds its exoskeleton or skin as it grows from one stage to another. Molting is necessary for the increase in size. The number of molts varies with species.

The larva instar changes in size, but not overall appearance as they move through the molting stages. The larva instar's final molt is into a pupa.

The nymph instar changes in shape and characteristics as it approaches the adult form. The nymph instar's final molt is into an adult.

Larvae and Nymphs – Similar and Different, continued

Here are several different stages of instar (immature) leaffooted bugs on a green tomato. You can see the two clearly visible black bumps on some indicating their instar status. The features of each instar stage result in an appearance more and more resembling the adult, in this case, a leaffooted bug.

This instar of a leaffooted bug is injecting an enzyme through its feeding tube to dissolve some of the tomato it is attacking. It then sucks up the free-flowing liquid. The photo is greatly enlarged, making it easier to see the instar's feeding tube.

A leaffooted bug in its last instar stage is close to its final molt. The two bumps on the back and the under-developed wings indicate it is an instar and not yet an adult.

The feeding tube is inserted into a bean pod as this leaffooted insect injects an enzyme that will liquify some of the bulging seed. Then it will slurp up the slurry. This photo was taken several years ago on one of Jerry Ballanco's yard-long beans.

Larvae and Nymphs – Similar and Different, continued

Complete metamorphosis has four stages: egg, larva, pupa and adult. The larva is very active when immature, spending most of its time eating. A pupa is inactive while undergoing dramatic, transformative changes. Competition for food is avoided as the young and the adult often feed on completely different foods. The adult moth feeds on nectar while its larvae feed on leaves. A tomato hornworm will feed on the leaves, and when there are none left, will dine on the tomatoes.

Incomplete metamorphosis has only three stages: egg, nymph and adult. A nymph will get larger and more adult-like until its final molt. Unlike a larva, immature nymphs and adult leaffooted bugs share the same food source. Both stages have piercing/sucking mouthparts so they can penetrate the fruit, inject an enzyme that dissolves the softer pulp or seed, and then suck up the liquid.

Traits of Larva and Nymph

	Larva	Nymph
Egg hatches to immature form	Yes	Yes
Molts between immature stages	Yes	Yes
Instar – developmental stage between molts	Yes	Yes
Final instar stage transforms into a pupa	Yes	No
Dramatic change from pupa to adult	Yes	No
Immature looks nothing like adult	Yes	No
--- a little over 50% have worm-like appearance	Yes	No
Undergoes complete metamorphosis	Yes	No
--- 75% of all insects	Yes	No
Instar stages end in adult	No	Yes
Gradual changes with each molt	No	Yes
Immature is similar in appearance to adult	No	Yes
Undergoes incomplete metamorphosis	No	Yes

References:

https://aggie-horticulture.tamu.edu/galveston/Gardening_Handbook/overview/Handbook-D_type_metamorphosis.htm

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http://ipm.ucanr.edu/PMG/glossary.html#I

http://entnemdept.ufl.edu/creatures/orn/beetles/plagiometriona_clavata.htm

Art Scott
Master Gardener
Editor, *MoM*

A Virtual Tour: Cox-Perkins Gardens

All through the year my garden offers opportunities for enjoyment. I'm going to take you on a virtual tour of my garden from last fall until this summer. I hope you enjoy!

During the autumn, an avenue of six brilliantly colored Cleveland pear trees alongside the driveway separates my property from the neighbors.


Photo by J Cox-Perkins


Photo by J Cox-Perkins

Additional colorful fall foliage is provided by yellow sweet gum trees scattered throughout the property.

Just when it appears that the flowering season in the garden has passed, the sasanquas begin to bloom, turning the landscape into a rose-colored wonderland.


Photo by J Cox-Perkins

During the Christmas season, I force paperwhite narcissus indoors to provide both natural beauty and fragrance.


Photo by J Cox-Perkins


Photo by J Cox-Perkins

A Virtual Tour: Cox-Perkins Gardens, continued

Natural evergreens and dried limelight hydrangeas from the garden are used as Christmas decorations.

Throughout the cold winter months, several varieties of colorful camellias bloom throughout the grounds.

A Virtual Tour: Cox-Perkins Gardens, continued

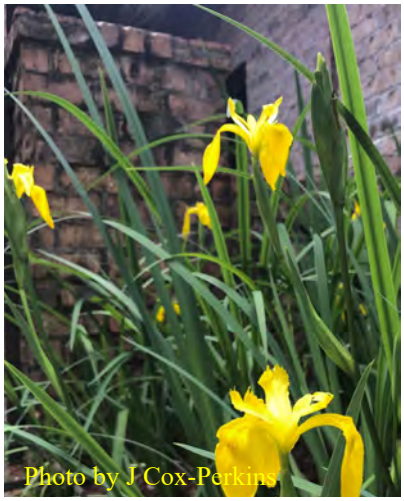
Early spring brings beauty in the form of pansies and daffodils planted in the autumn.

Mid spring brings in a riot of garden color and form. Azaleas and spirea bloom all through my wilderness gardens, providing lovely blooms for bouquets.

Different varieties of amaryllis pop up in several places.

A Virtual Tour: Cox-Perkins Gardens, continued

Nothing beats the freshness of the Louisiana irises.



Around Easter the English dogwood begins to bloom and sago palm fronds provide materials for a Palm Sunday door decoration.

My nine-foot tall Yesterday, Today, and Tomorrow is a showstopper in April adorning the front courtyard. It blooms purple on the first day, turning to lavender on the second, and then white the third day. The scents of Confederate jasmine and two varieties of gardenias waft through the late spring air.

A Virtual Tour: Cox-Perkins Gardens, continued

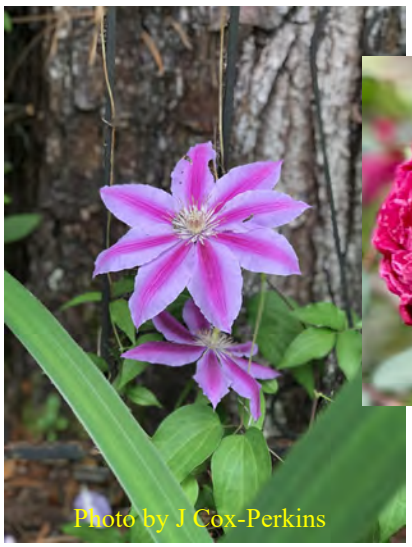
Early summer brings French and limelight hydrangeas for beautiful bouquets. Also seen in these arrangements are false indigo, American Beautyberry, and autumn fern.

Summer also brings daylillies. This old fashioned double is my favorite, taken from my late mom's home in north Mississippi. Among other pass-along plants from my mom's yard are these brightly hued cannas.

A Virtual Tour: Cox-Perkins Gardens, continued

Blue and white agapanthus and pink begonias fill in these beds in front of boxwood and holly topiaries creating a tiered look. More spots of blue in the landscape come from the plumbago and Mexican petunias.

I'm training this clematis onto a trellis. It's fairly new, and I can't wait to see it fill out. This extremely fragrant climbing rose is sprawling all over three blueberry bushes in my side yard. Hopefully they can peacefully cohabitate.



Some of the herbs grown in the garden are thyme, rosemary, lavender, lemongrass, dill, spearmint and chocolate mint, sage, basil, parsley, cilantro, fennel, and chives. I often use them in cooking, including in these delicious lemon herb cookies.

A Virtual Tour: Cox-Perkins Gardens, continued

Growing in my vegetable garden this year are Rapunzel cherry and Better Boy tomatoes, along with hot peppers a friend gave me as tiny transplants.

I only recently started composting. I am amazed at some of the surprises I have encountered, such as this volunteer cantaloupe and these alien-like creatures that I assume are a type of fungi!

My favorite garden is the formal one behind the house. It sits beyond a large brick floored pergola covered in evergreen wisteria. The four quadrants of the garden are bordered in boxwoods filled with sixteen newly planted limelight hydrangeas and centered with four tall conical hollies. Pebble paths separate the sections, centered with a fountain surrounded by purple Louisiana irises and white sunpatiens. At opposite ends of the paths are urns of White Madness petunias.

A Virtual Tour: Cox-Perkins Gardens, continued

The pergola itself is shaded by the evergreen wisteria that blooms from June till frost, dropping tiny purple flowers that are sometimes nibbled up by wild bunnies that dwell in the garden. Centered in front of four other columns are large urns containing bird's nest ferns that constantly send up unfurling green fronds. Underneath the pergola is the perfect setting for the garden tea parties. For the past ten years, I hosted tea parties for my second grade female students, and cookouts for the males.

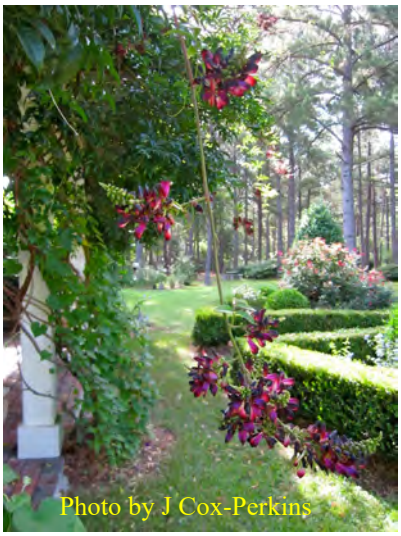


Photo by J Cox-Perkins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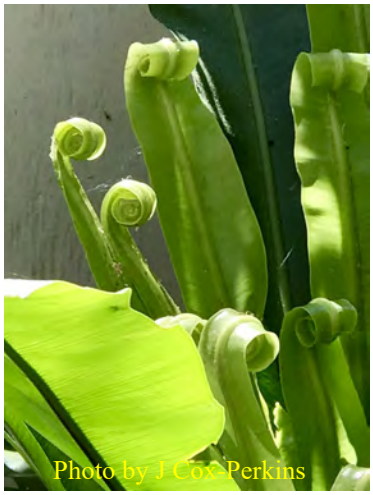


Photo by J Cox-Perkins


Ashley Anna Photography


Photo by J Cox-Perkins

Among my favorite garden ornaments are a birdbath I turned into planter, a hanging garden fairy, and a wire garden angel given to me by my late husband.


Photo by J Cox-Perkins

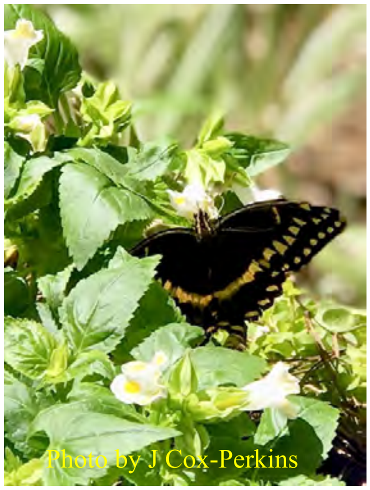

Photo by J Cox-Perkins


Photo by J Cox-Perkins

A Virtual Tour: Cox-Perkins Gardens, continued

Wildlife thrives in my garden and provides many hours of entertainment.


Photo by J Cox-Perkins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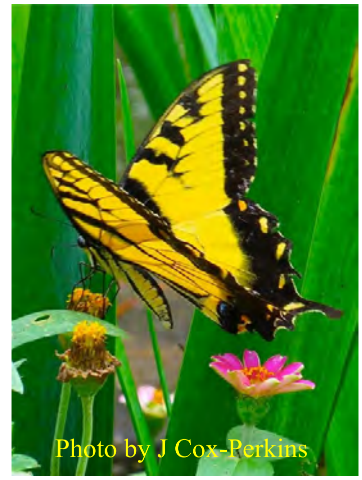
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A Virtual Tour: Cox-Perkins Gardens, continued


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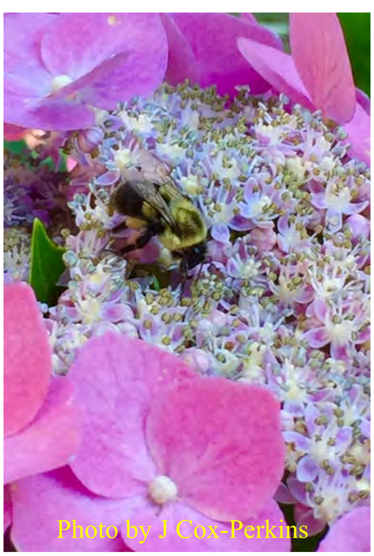


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins

A Virtual Tour: Cox-Perkins Gardens, continued

One of my favorite pastimes is designing floral arrangements from the large variety of flowers my garden provides throughout the seasons.


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins


Photo by J Cox-Perkins

Photo by J Cox-Perkins

As you can see, gardening is such a pleasure for me and something I look forward to enjoying all my life. I would love to give you a real tour. Stop by and we'll enjoy a cup of tea under the pergola!

Janice Cox-Perkins
Master Gardener

Harvesting Honey with the Bates Family

Jim Bates, a long time beekeeper and master gardener, has shared his apiarist experience with STMGA through numerous lectures and table demonstrations. In this pictorial he shares his family's adventure harvesting honey. A video with commentary of this actual harvest will soon be found in the Gardening section of the STMGA website. Be on the lookout!

Suiting up for the harvest is a family affair for Jim and his apprentices, Jimmy his son, and Austin his grandson. Jim holds a smoker, an important tool used during the honey harvest. This event occurred the last week of June when the temperature was in the 90s. Really hot work!


Photo by D Bates


Photo by D Bates


Photo by D Bates


Photo by D Bates

The harvest begins by removing honey filled frames from the hives. And the bees are NOT happy!


Photo by D Bates


Photo by D Bates


Photo by D Bates

Harvesting Honey with the Bates Family, continued

The honey filled frames are moved to a different site (Jim's garage) where the honey will soon be extracted.

Jim holds up an uncapped frame that still holds honey. The honey is completely encapsulated by wax. It is exposed by removing the top layer of wax with a special knife or scraper. The frames are placed into a large stainless steel spinner called an extractor. The honey is removed by centrifugal force as the frames spin rapidly. Hottee, a neighbor, ran the extracting operations this day.

The honey is then drained out of the extractor into a pail and strained to remove large pieces of wax and other debris. The strained honey is brought into the kitchen to be bottled.

The honey-filled pail which has a spigot near the bottom is placed on the counter near the sink. A bottle is placed in the sink. The spigot is opened and the golden honey pours into a jar.

Harvesting Honey with the Bates Family, continued

Jim's storage room is filled with bottles of honey. On this day he bottled 122 gallons of honey. Successful day's harvest!

Jim, his wife Dee Dee (photographer and Supervisor of Honey Operations), apprentice grandson Austin, and future apprentice granddaughter Olivia relax after a hard, hot day in the apiary.

Be sure to check out Jim's video on the STMGA website to hear his commentary and see the whole honey harvest in action!

Jim Bates
Master Gardener
Vegucator

Caterpillar Alert!

It's that time of the year to check your azaleas and blueberries for caterpillars. I usually get azalea caterpillars this time of the year and keep them under control with the "pick and squish" method. Last year I was out of town for two weeks at the end of July and came back to a completely denuded blueberry bush. I had no idea what happened to it as the ones on either side of it were fine. Recently I walked by my blueberries and discovered a partially denuded bush and lots of garden caterpillars in various stages of development.

Caterpillar Alert! continued

Once I finished dispatching the caterpillars on my blueberry bush I thought I'd better check my azaleas. Low and behold! Instead of the one variety of azalea caterpillars that I usually see, I have at least three different varieties.

They're all very pretty but will soon meet their maker. They all tend to look alike once they're squished. I'm trying to decide if it's a good thing or a bad thing that I can now squish a caterpillar with my bare fingers without cringing. This batch got thrown in a plastic bag and stomped, though. Just too many to dispatch individually.

My older plantings of blueberries and azaleas don't suffer that much damage. So I don't need to do much with those. But the younger plants can be completely stripped of leaves which sets back production of berries the next spring. I am usually on the lookout for these caterpillars every few days from mid-July until mid-September.

Happy gardening.

Laura Steffee
Master Gardener
Vegucator

Flowers That Can Take the Heat

In the intense heat of late summer, it is hard to make myself work in the garden. But that does not mean the garden stops producing interesting views. Here are a few flowers in my garden that do not mind the soaring temperatures or an unenthusiastic gardener.

Zinnia

Gallardia

Marigold

Rudbeckia

Rudbeckia

Porterweed

Flowers That Can Take the Heat, continued

Cleome

Purple coneflower

And adding a little more color to the garden, a swallowtail caterpillar who decided to feast on my parsley.

Monica Pierce
Master Gardener

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Part Three: Fall and Winter

This article, a Vegucator lecture, will review the appearance of poison ivy, poison oak, and poison sumac in the fall and winter months. These plants change in appearance as the seasons progress. Previous issues of *The Gardengoer* covered identification in spring and summer.

In the fall, The leaves of poison ivy take on vibrant reds, oranges, and yellows. Berries are yellow to white. This picture also illustrates how the vines take on a "hairy" appearance by developing those aerial roots that help them climb nearly straight up a tree.

Even in winter when its leaves have fallen, bare poison ivy vines still contain urushiol and, if touched, can cause a rash.

Birds are immune to the effects of urushiol. The berries are a source of food in the winter when there is not much else to eat. This is also how poison ivy is easily spread to other locations.

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Fall and Winter, continued

In the fall poison oak leaves turn red, yellow, brown, and bronze. The berries are white during autumn months and can also be eaten by wildlife.

In winter, the bare branches of poison oak are indistinguishable from non-toxic plants. But they still contain urushiol that can cause rashes if the branches are touched. This is why it is important to spot poison oak during seasons when leaves are identifiable and eradicate it then.

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Fall and Winter, continued

Like its toxic cousins, poison sumac leaves develop brilliant autumn hues in yellow, scarlet, orange, and purple in fall.

In winter, poison sumac trees lose their leaves. Bare branches may still hold drupes of white berries.

In late winter new reddish-colored buds will begin to appear on its branches. If branches have been cut or broken, the old sap containing urushiol will be dark brown to black. In late winter new young stems are purplish-red.

The next issue of *The Gardengoer* will finish this series on poison ivy, poison oak, and poison sumac with eradication of these toxic plants and treatment of skin rashes caused by contact with urushiol.

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

Managing Nuisance Wildlife Around Fruit and Vegetable Gardens

Most gardeners enjoy seeing wildlife in the landscape and some even design their gardens with that idea in mind. However, when growing fruits and vegetables, wildlife may become enemy number one. Animals, just like humans, need to eat food for their bodies to produce energy. They also raise and care for their young just like humans. Because of these common traits, wildlife can be persistent.

You will never get rid of all wildlife. If that is your goal, then you will be doomed to fail. Instead of complete eradication, look at management to reduce the damage caused by wildlife. Accept that it is okay if you lose a few figs, a tomato, or a couple of snap beans. Strong healthy plants will produce an abundance of fruit that can be enjoyed by everyone. Think of it like a threshold or a level of acceptable loss.

The most effective management plans are based on integrated pest management (IPM concepts). IPM programs incorporate several strategies all layered together with the idea to reduce pest pressure. Do not let the fancy words fool you, these are the same practices that professional growers use to keep wildlife out of their crops.

Positive identification is crucial in an IPM program because it initiates the whole process. Once a pest is identified, the next step leads into evaluation. During this phase, ask yourself questions. How much damage has been done? Is it more than my predetermined level of acceptable loss? Should I intervene and implement a control measure? As pest pressure increases towards the acceptable predetermined limit you will need to take steps to reduce losses. Those steps can be grouped into categories: cultural, mechanical, physical, and chemical control measures.

Cultural Control Measures

1. Maintain healthy plants by providing adequate fertility and irrigation. Healthy plants can withstand heavier pressure than unhealthy plants.
2. Practice crop rotation. For those with several raised beds in different areas of the yard, rotate various vegetable crops around when possible. This will not only help to manage disease but will also help to prevent the annual feeding from some wildlife.
3. Trap crops. Plant or allow trap crops (wildlife attractants) to grow to provide food and shelter away from desirable plants. Many native plants such as American holly (*Ilex opaca*), American beauty berry (*Calicarpa americana*), elderberry (*Sambucus canadensis*), hawthorn trees (*Crataegus spp.*), and wax myrtle (*Myricas cerifera*) produce an abundance of fruits and seeds which attract many bird species.
   Allowing many of these plants to grow and thrive in an opposite area of the yard can help to relieve pressure on backyard fruit and vegetable gardens.
4. Stop feeding wildlife. The use of birdfeeders and other wildlife feeding stations attract and congregate nuisance wildlife in the landscape. This includes deer feeders. Limit the use of these products to small areas away from desired plantings.

Mechanical and Physical Control Measures

1. Trapping. Many nuisance wildlife can be trapped and relocated. This method can highly effective. However, relocation presents another dilemma. Nuisance wildlife operators with the Louisiana Department of Wildlife and Fisheries (LDWF) can help with this type of control method. Information on the program can be found at https://www.wlf.louisiana.gov/page/nuisance-wildlife-control-and-removal/

Mechanical and Physical Control Measures, continued

2. Exclusion and Fencing. Creating a physical barrier is the most effective means to prevent wildlife grazing in your home fruit and vegetable gardens. Both above and below ground fencing will physically keep wildlife out of the garden. Various height recommendations correspond to the specific pest. Underground fences, like buried chicken wire, work well on digging pests such as moles. A four-foot tall fence of chicken wire (1 inch) buried six inches will keep out rabbits, both adults and juveniles. Deer and larger vertebrates can be excluded using a six-foot tall fence. For large vegetable gardens, allow a section of the fence to be opened to prevent an animal trapping itself inside the fence.


LSUAgCenter


Wildlife-damage-management-extension.org

3. Electric Fencing. Electric fencing can be highly effective but entails another step of monitoring and inspection. If a wire slips off a connector the entire system can be compromised.

4. Individual Plan Protection. Physical barriers around individual fruit trees can be effective in managing nuisance wildlife. DIY projects consisting of t-posts and livestock panels makes for an easy weekend project that can be customized to the specific size of the tree or bush.

5. Netting. Use of netting material to physically cover fruit trees is effective in preventing birds from accessing ripening fruits. Look for woven polyethylene netting with ¾ inch mesh for easy handling and long-lasting use in the garden.


Figs4fun.com

Chemical Control Measures: Repellents

Repellents can provide some protection from vertebrate pests, although the effect is usually temporary at best.

The final step of a good IPM program is to evaluate control measures and rate their effectiveness. What are the results from the control measures implemented? Was damage reduced? Biological systems behave in unexpected ways. As the area around you changes, wildlife pressure can change too. Take notes and record both positive and negative results for later use when encountering different wildlife problems. Have discussions with fellow growers to learn local tips and tricks. Managing nuisance wildlife can be a tough obstacle, but with a strong IPM program it can be accomplished.

Good Luck!

Will Afton
County Agent
LSU AgCenter

Drying Herbs

Herbs are easy to grow, require little care, and many are perennial. Small patches will grow quickly. And when left in place, they will multiply each year.

I have a patch of mint that is over ten years old. It is growing in a protected nook between my house and garage. This patch supplies fresh mint to my kitchen all year round. Of course most herbs die back after a hard freeze.

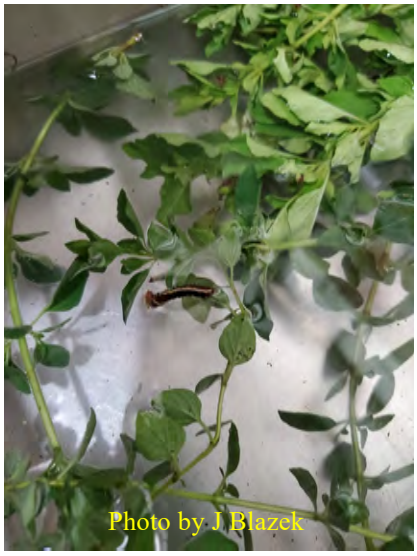
Drying herbs is a great way to save and store them so they can be enjoyed throughout all seasons. Some herbs, such as oregano, are even more flavorful when dried because the oils are concentrated.

There are several foolproof methods to dry herbs: air drying, oven drying, and dehydrating. Regardless of the method you chose, harvest your herbs early in the morning when the essential oils are at peak levels, and therefore highest level of flavor. Cut the sprigs or shoots approximately the same length, being careful not to crush or bruise them.

Although some say you do not need to wash the herbs, I like to soak them in a clean sink. Smaller batches can be soaked in a salad spinner.

Drying Herbs, continued

Soaking may slow down the drying process, but it does help get rid of unwanted hitchhikers, such as spiders, slugs, snails, caterpillars and other larvae. In this one batch of oregano I found three!



After soaking I lay out the sprigs on clean kitchen towels and gently pat them dry.

AIR DRYING

1. Some people think this is the preferred drying method since it helps to retain more of those flavorful essential oils. But it does take longer to completely dry the herb.
2. Bundle ten or so sprigs together and tie them with clean kitchen string.
3. Hang them in a cool dry place.
   In some areas of the country that may be outside. But in humid southeast Louisiana that means hang them inside. I have some racks that usually hold my canned items. I just clip them on the rack shelf where they will be out of the way for a week or two while they dry. An infrequently used cabinet knob works too. Wherever you hang them, the fragrant smell permeates the room.

Drying Herbs, continued

AIR DRYING, continued

3. Some people like to put the herb bundles in a paper bag and then hang the bag. This is probably a neater way to hang the herbs. But I do not bother with bags. I like the smell of the drying herbs as I walk past the rack and do not mind sweeping up a few fallen leaves.
4. Drying time depends on the humidity and the thickness of your bundle. My cousin in Desert Springs can hang a sprig outdoors the day she picks it and take it in that same evening completely dried. Mine take a week or two indoors.


Dried oregano
Photo by J Blazek

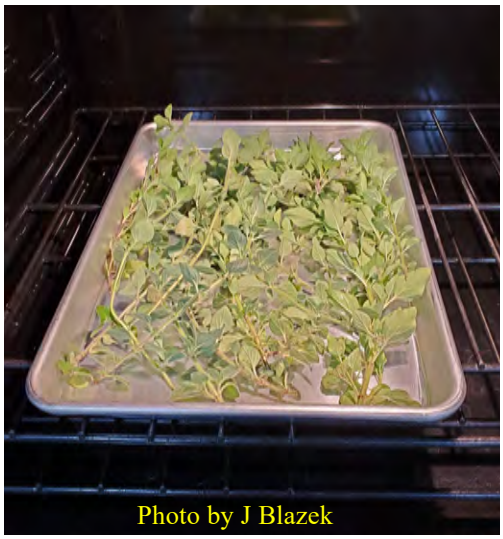


Photo by J Blazek

OVEN DRYING

1. Place individual sprigs on a large cookie sheet. Do not stack or crowd.
2. Set your oven temperature low, less than 180 degrees Fahrenheit. Leave the oven door cracked open.
3. Check frequently to see if the leaves crumble easily. It will take two to four hours.


Photo by J Blazek

DEHYDRATING

1. Place herbs on the dehydrator rack in a single layer.
2. Set the dehydrator thermostat 100-125 degrees Fahrenheit for one to four hours.


Photo by J Blazek

After your herbs are dry and crumble to touch, it's time to remove the leaves from the stems. I like to wear gloves to do this because some of those small twigs can act like thorns. Just gently rub or squeeze the bundles over a large bowl or piece of paper.


Photo by J Blazek

Drying Herbs, continued


Photo by J Blazek

Remove any small twigs or branches that may have fallen into the bowl.

Store the herbs in an air-tight container, such as, a canning jar, a plastic freezer bag, or a plastic storage container. I also use re-cycled old spice jars that I previously purchased. Date the container.


Photo by J Blazek

Most culinary experts say it is best to use dry herbs within twelve months for optimum taste. I dry a lot more than I would use in a year. So, I frequently share with family, neighbors and friends. I also create herb blends, put them in a decorative jar, and give as gifts during the holidays. Herbes de Provence is a favorite among friends. And of course, my kids never go home empty-handed. They have been trained to return their empty containers for refills.

Recipe for Herbes de Provence

2 tablespoons each of the following dried herbs: savory, rosemary, thyme, oregano, basil, marjoram, and fennel seed

1 tablespoon of dried lavender (be sure it is food grade and not lavender bought at craft stores for potpourri)

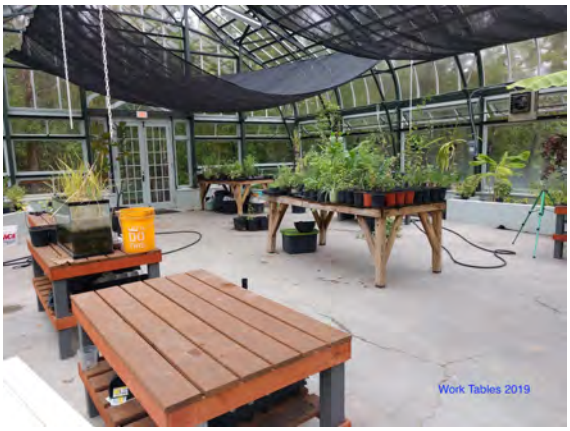
Herbes de Provence is a traditional herb blend used in France. Mix all the ingredients together and store in an airtight container. It can be used with any meat, in sauces, stews, homemade bread, and salad dressings. My favorite use of this blend is to mix a tablespoon or so with a cup of fresh goat cheese chevre and serve on crackers. *Bon Appetit!*

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

Lockdown At The Audubon Louisiana Nature Center

Prior to the lockdown, my wife and I volunteered at the Nature Center. We have all been under "house arrest" for several months due to the Covid-19 virus. The restrictions are wearing on all of us, one way or another. The non-human life forms are responding in different ways. The animals at the Audubon Zoo have not seen many human visitors (and have all asked for you!). Due to lack of human control and pampering, the plants at the Audubon Louisiana Nature Center have been allowed a lot of freedom. It had been many months since my wife and I were there, but recently we went back.

The projects of replacing invasive trees with native species, propagating pollinator-friendly plants for the Center's grounds, primping poinsettia plants for the 2020 Christmas display, plus a number of personal projects of the staff and volunteers were started at the beginning of this year. With the sudden lockdown of the Nature Center in March, many of the plants had to fend for themselves, or get minimum care from Isaac Wyatt and Joshua Suit, the only staff left on site. Our return visit to the Center presented a remarkable visual difference between then and now. Here's what the greenhouse, the Botany Center, looked like October 2019.



Since then more plants were brought into the center and cuttings were started. Before the March lockdown staff and volunteers had to spend several hours three times a week watering plants by hand. Last autumn an irrigation system was designed for the Botany Center. Now with the irrigation system installed, automatic watering has more than handled the job. In fact, Isaac said the system had to be turned down recently because it was doing too good a job.

Our return to the Nature Center was a pleasant surprise. The majority of plants have flourished and most of the projects will re-start once the Center fully opens.

Inside the Botany Center all the raised gardens are now bursting at the seams. Pollinator-attracting plants had been selected so they could be propagated and moved outdoors. In this raised garden there is hamelia firebush (*Hamelia patens*), shrimp plants (*Justicia betonica*), red firespike (*Odontonema cuspidatum*), and patchouli (*Pogostemon cablin*). All of these have spread out and are merging together.

On the tables are several herbs including the African Blue basil (*Ocimum kilimandscharicum x basilicum* "Dark Opal") that was obtained from Jim Bates. This is one of the most prolific herbs at the Center. As the scientific name implies, this is a hybrid with camphor and standard green dark basil. The taste may be offsetting to many folks, but it is one of the best plants for attracting pollinators and many gardens welcome it.

The Philippine violet (*Barleria cristata*) is another dependable plant that is thriving. These are now over four-feet tall in their pots, which is about their limit, even in the ground. Society garlic (*Tulbaghia violacea*) is also quite at home in the hot, humid conditions in the Botany Center. Watering the plants, whether by hand or the automated with the irrigation system, produces strong herb fragrances that are very inviting.

Lockdown At The Audubon Louisiana Nature Center, continued

One surprise was this banana tree. It was planted in a raised bed in 2018 when the Nature Center re-opened. It must like the conditions in the Botany Center because it has produced a lovely bunch of bananas! Everything about the plant is lush and green.

In the same bed is a pineapple that is fruiting. The fruit was first noticed in February, and it is growing right on schedule. There are two other pineapple plants along with several bromeliads. The two other pineapples are still quiet. Some of the bromeliads have produced flowers and are pushing up new pups.

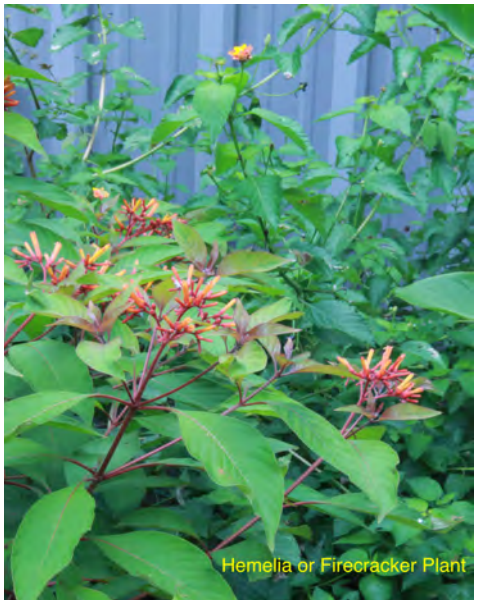
The poinsettia project is being put off until 2021. Probably 60% of the plants will survive, but there is a fairly tight schedule for pruning, feeding, and forcing their flowers. So there most likely will NOT be a poinsettia tree at the Interpretive Center this year.

Many of the native tree cultivars have been moved outside the Botany Center to more favorable and cooler growing conditions. There are cypress (*Taxodium spp.*), sycamore (*Platanus occidentalis*), swamp red maple (*Acer rubrum*), and persimmon (*Diospyros virginiana*) just to name a few. Once the Nature Center resumes its planting schedule these trees will be ready to go in the ground.

Just outside the Botany Center there are some flowers which are favored by several pollinators. The white shrimp plant was planted last summer and made it through the cooler winter. Some of these planted north of Lake Pontchartrain may not have made it outdoors, but the slightly warmer zone at the Nature Center seems to be to their liking. One plant that needs no introduction at the Nature Center site is the Lantana (*Lantana camara*). Some locals refer to this native as "ham & eggs." It is common enough to be considered a weed in some gardens. But it is a favorite of many moths, butterflies and other pollinators.

Lockdown At The Audubon Louisiana Nature Center, continued

One of my favorites is the Red Firespike (*Odontonema cuspidatum*). In partial shade this stays lush green all summer. It flowers from August to first frost; however, in full sun it will flower in July. Hummingbirds and butterflies are often seen hanging around these blooms.

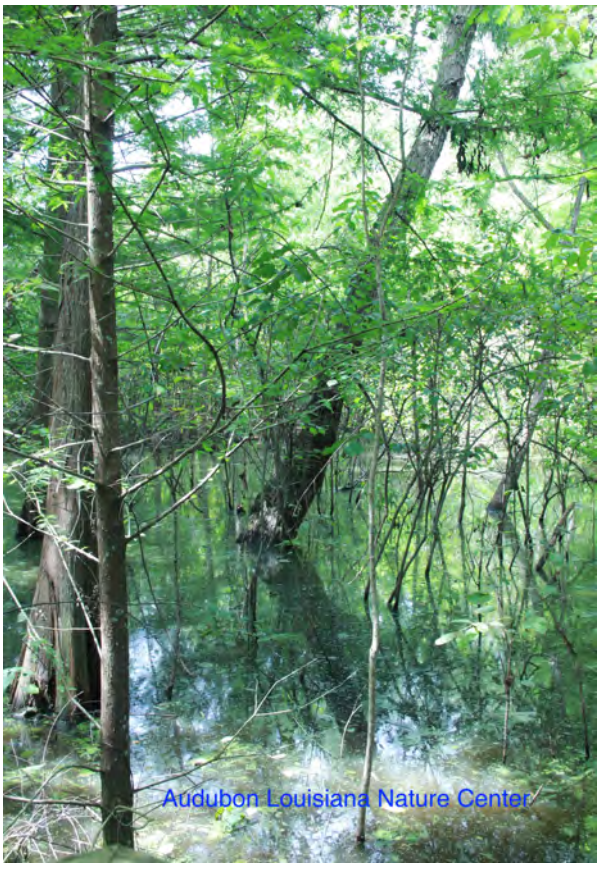


The Hamelia or Firebush *(Hamelia patens)* blooms all summer long. This is another hardy tropical. I have lost some of these during the Northshore winters but they do well in New Orleans East.

With the large amount of rain experienced during July, the trails and boardwalk of the Nature Center give one a true feeling of being out in the swamp. To say everything is green is an understatement. It is beautiful there. Yes, it is still hot and humid, but most of the walk is well shaded. If you plan to visit be sure to bring your water, a hat, and sun screen. It would be useful to have a "plant app" on your cell phone to help identify some of the plants to be discovered on this relaxing walk.

Mushrooms are abundant on any of the walks. Bring someone along who is well versed in identifying these fungi and you can have a most enjoyable time.

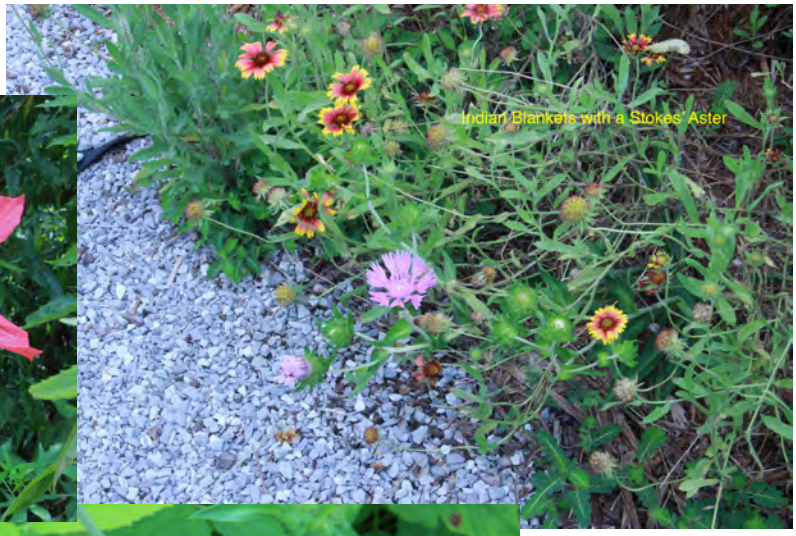
Many of the trails are damp. Well, they are down right wet, muddy, and sometimes impassible. However the boardwalk is always open, with lots to see. You will find many birders out here. This is one of the better places to spot a variety of avian life.



There still are invasive plant species here, mostly Chinese tallow trees. Although the tree planting project is on hold for the time being, the native trees which were started before the lockdown are doing very well.

Lockdown At The Audubon Louisiana Nature Center, continued

As you head out to the parking lot, be sure to visit the Entrance Pollinator Garden just in front of the Interpretive Center. There is a maze-like path that winds you past Bottlebrush blooms (Callistemon), Texas Star Hibiscus (Hibiscus coccineus), Stokes' Asters (Stokesia laevis), and Indian Blankets (*Gaillardia pulchella*). These were in bloom in early August when this article was written. However, you just may find all sorts of new and different discoveries every time you visit the Audubon Louisiana Nature Center. Come out. Explore. Relax.

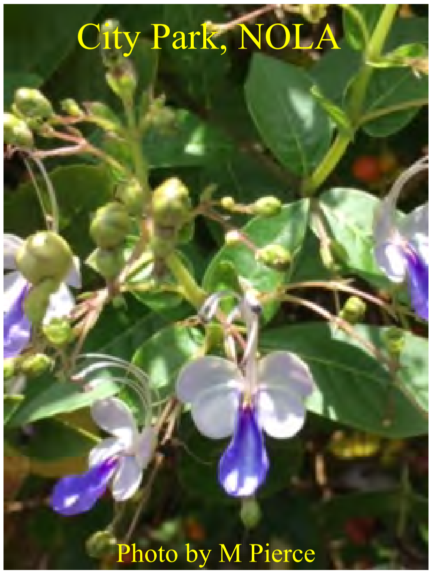


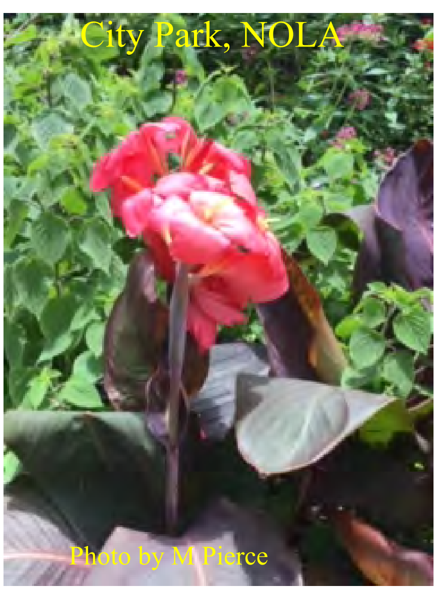
Editor's note: all photos were taken by Susie and Paul Andres

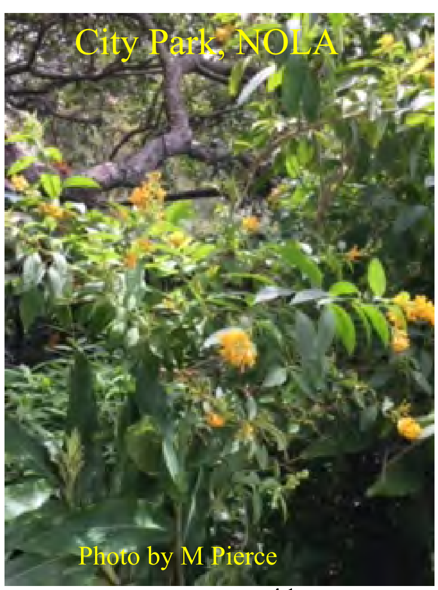
Paul Andres
Master Gardener
Vegucator
Volunteer at Audubon Louisiana Nature Center

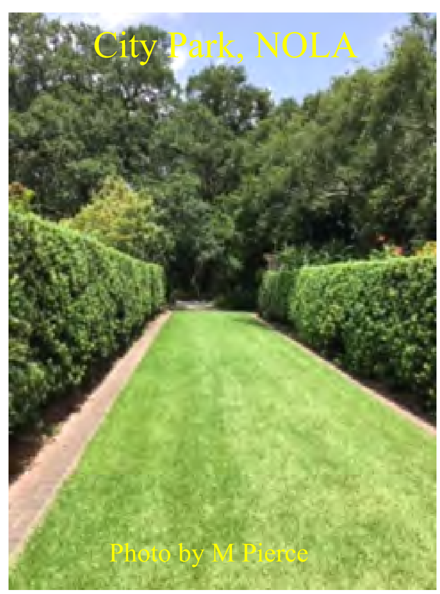
Visiting Botanical Gardens

A great one day vacation is just an hour away: New Orleans City Park Botanical Gardens.

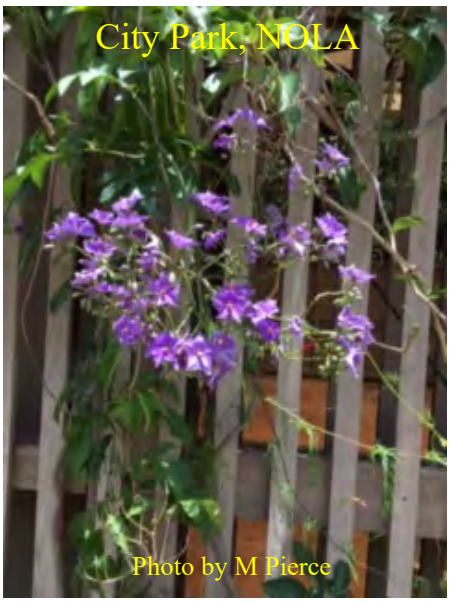








Visiting Botanical Gardens, continued



Cheekwood Botanical Gardens in Nashville is a little further drive, but it well worth the trip. It has the Chihuly exhibit from now to January.

Monica Pierce
Master Gardener

Brag Board

Laura Steffee, Master Gardener and Vegucator, came up with a brilliant idea to store her 30+ pounds of squash in a cool dark space. Here's what Laura has done:

"My five butternut squash plants have already produced over 30 pounds of squash and are still producing. I am storing all of my produce (about 100 pounds) in my laundry room where it's cool and dark. It was getting to be too much to shift 30 pounds of squash and 50 pounds of potatoes plus the current produce every time I wanted to do laundry. So the squash are now hanging on one wall of the laundry room. They're completely out of the way, getting lots of air circulation but still dark and cool. Nobody sees the laundry room but me."

Photo by L Steffee

Photo by L Steffee

Photo by L Steffee

Brag Board

Micheal Dill, Master Gardener, has hugel gardens with tomatoes and squash...

...and a couple of visitors, including an unwelcomed one who up-rooted some squash plants.

Brag Board

Art Scott, Master Gardener, loves to photograph the wild life in his gardens. He recently captured these photographs.

Slidell Library Herb Garden

On Tuesday August 11, 2020, members of the Slidell Library Herb Garden Committee met for a day of weeding, trimming, and planting in the library herb and pollinator gardens. The garden has several herb beds in a semi-starburst arrangement and eight large rectangular beds of pollinator plants that the committee maintains. Master gardeners, Ruthanne Johnson, Linda Franzo, Gina Sutton, Susan Yingst, and Janet Schexsnayder trimmed overgrown plants, removed weeds, and trimmed an invasive yaupon destined for future removal. Ruthanne made new spoon-shaped labels for many of the plants, using the PL@NTnet app for identification.


Gina weeding

Photo by J Schexsnayder


Linda removing weeds

Photo by J Schexsnayder

Linda donated *Hibiscus sabdariffa* (Roselle), swamp daisy, sunchoke (Jerusalem artichoke), luffa, echinacea, lavender mint, and purple hyacinth. These all came from her own gardens.

We maintained appropriate social distances, used our own tools, and wore garden gloves. The gardens now look nicely refreshed. Our members will continue with supplemental watering (in addition to timed micro irrigation and rainfall) into September and October.


Ruthanne calling in reinforcements

Photo by J Schexsnayder

Janet Schexsnayder
Master Gardener

Honeybee On Native Swamp Milkweed


Photo by J Blazek

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

THE GARDENGOER

THE NEWSLETTER OF THE

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