

Your UF/IFAS Extension, Lake County Master Gardener Volunteers hope you enjoy these articles and welcome all feedback and article requests!

By K.S. Kennen, MGv

## HEALTH and GARDENING

As a gardener I always believed that working in my garden was a great stress reliever. I was surprised to read that there was a study done by the Dutch that showed 30 minutes of gardening was more effective at lowering cortisol (the stress hormone) levels than 30 minutes of reading. In addition to providing stress relief, gardening can satisfy your recommended two and a half hours of weekly exercise toward becoming a healthier individual. A Stockholm study showed stroke and heart attack risks for those over 60 was cut by 30% with regular gardening. A third benefit revealed was from a long-term study of 3,000 older adults. It was found that daily gardening reduced the risk of dementia by 36 percent.

Now consider the dirt and existence of bacteria. A teaspoon of productive soil generally contains between 100 million and 1 billion bacteria. *Mycobacterium vaccae* is one of the bacteria that lives in the soil. Some researchers believe that working in the soil and inhaling *M.vaccae* can bring happiness and alleviate depression by increasing the production of serotonin.

Three further [health benefits](#) of gardening are burning calories, lowering blood pressure, and adding to bone health. Many of us walk for calorie burn, but [more calories](#) are used when gardening. Shoveling burns over 500 calories an hour. Pulling weeds burns about 230, whereas walking for an hour burns 210 to 250 calories and is not as much fun. Beside calorie burn, engaging in outdoor activity had been shown to reduce stress levels — releasing endorphins and creating a greater sense of well-being, thereby lowering blood pressure. As for your bones, gardening can contribute to increasing bone mineral density through exercise and ensure you get plenty of bone-building vitamin D through exposure to sunshine.

Finally, our gardens add a sense of accomplishment to our lives through harvesting crops and beautification of our environment. Nothing is more rewarding and enjoyable than picking a ripe tomato and slicing it on a salad. Or, picking a rose to put in a vase to admire on your table.

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### Lake County MG Mission Statement

The mission of UF/IFAS Lake County Master Gardener Volunteers is to assist extension agents by providing horticultural education programs and current research-based information to the public through plant clinics, community outreach and Discovery Gardens.



BY Cathy Leavers MGV

There are two wild passion flowers native to Florida which attract butterflies and are easy to grow. They are the *Passiflora incarnata* and the *Passiflora suberosa*. They are perennial vines which climb by tendrils, growing 3 to 10 feet or longer, depending on growing conditions. These vines act as the host plants for the [gulf fritillary](#), zebra longwing (our state butterfly) and the Julia butterflies. For those of you not familiar with the life cycle of butterflies, the female lays her eggs on the host plant and the caterpillars eat the leaves until they are ready to form a chrysalis and turn into butterflies.



Gulf fritterly

Zebra longwing

There are 400 to 500 different species of passion flower vine, most originating in Central and South America as well as Mexico. The flowers come in many colors, shapes and sizes, but the one thing they have in common is the arrangement of their flower parts. The striking and unusual form was used centuries ago by priests to teach the story of Jesus' crucifixion and resurrection to early converts to Christianity with the stigma as the three nails; the corona filaments as the crown of thorns; the stamens the five wounds; and the five sepals and five petals as the ten faithful apostles.

Probably the passion flower most people are familiar with is the *Passiflora incarnata*, also called maypop, with its beautiful lavender and

EDIS picture



*Passiflora suberosa*

Picture – K.S.Kennen



*Passiflora incarnata*

white flowers. It has 3-lobed leaves and produces edible fruit. The other one, *P. suberosa* or corky-stem passion flower vine, occurs in north and central Florida. It is called corky-stem because the stem has corky flakes.

The flower of this vine is very small and inconspicuous, an inch or less in diameter, but has all the same unusual parts. . The red passion flower (*P. coccinea*) has stunning red flowers, however, it is not native to Florida and is not a host plant for the butterfly caterpillars.

These vines are aggressive growers and may pop up (hence the name maypop) anywhere in your garden. I gladly put up with this to have all the beautiful butterflies that they attract. They grow well in direct sun and need at least six hours. The vines are very drought tolerant.

For further information: EDIS [FPS457](#) | IFAS [Plants](#) | [Gardening Solutions](#) | [Fact Sheet](#)

Our latest certified Master Gardener Volunteer, Giles Paget—Wilkes!!





Dear Master Gardener,

I have found these caterpillars in my yard and wonder if they are harmful or maybe they will turn into beautiful butterflies. Thanks for any information you can give me.

Dear Homeowner,

This is the oak tussock moth (*Orgyia detrita*) caterpillar. It appears in the beginning of March when oak leaves are flushing. When you see one, there will definitely be others. It is possible that an infestation of these caterpillars on an oak tree can defoliate the tree. But, it is okay since your tree can typically



Photo: N. LaPointe, MGV

withstand at least one defoliation a year and will grow leaves again. Be careful if you are curious and want to handle the caterpillar since some people are allergic or sensitive to the hair of this caterpillar. You might react with itchiness and a rash. Refer to UF/IFAS publication [ENY298](#) for information about dealing with caterpillars. This species should not do any permanent harm.

Useful Links: [Tussock Moth](#)

Dear Master Gardener,

My tabebuia tree has stopped blooming. Do I need to prune it?



This is also called a golden trumpet tree (*Tabebuia umbellata*) and as you know makes a wonderful patio or specimen tree. It is a small tree (25 to 35 feet) and has a natural rounded shape. The leaves drop in April to May and blooms appear shortly after they drop. When the blooms drop the trees forms eight inch long seed pods followed by foliage. The tree does not need pruning unless you want to remove lower branches after bloom to be able to move under the tree.

Refer to publication [ENH-772](#) on UF/IFAS EDIS.



Photos: UF/IFAS

Useful links: [Tabebuia](#) | [Trumpet tree](#) | [EDIS trumpet trees](#)

# Oncopeltus fasciatus

BY R. DOHERTY MGV

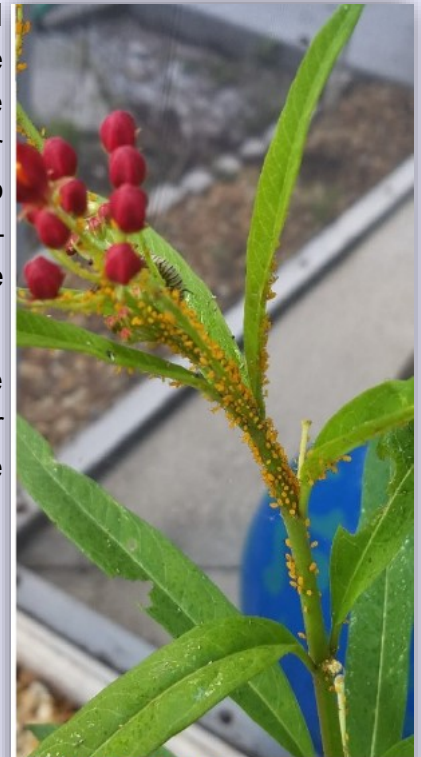
## What are those orange things moving on my milkweed plants?

If you've asked this question, you more than likely have milkweed bugs (*Oncopeltus fasciatus*). Will they kill my milkweed? They will eat the seed pods and flowers as this insect grows from orange nymphs to orange and black adults. Their damage should not be confused with caterpillar damage which will decimate the plant. But that's what needs to happen to allow caterpillars to grow and turn into butterflies. Milkweed is resilient – it'll come back. Not only that, but by eating the seeds they're keeping the spread of milkweed down.

Milkweed bugs can store the toxic cardenolides produced by the milkweed plants. Their coloring is a warning to predators – stay away or get sick! The juveniles are orange with black spots and the adults are black with orange, triangle markings on their back.



Kathy Warner EDIS



Reggie Doherty



Megha Kristi EDIS

Their nemesis - the Milkweed Assassin Bug (*Zelus longipes*) is sometimes mistaken for the milkweed bug but it has longer, striped legs and is orange with black markings on its back. This is a beneficial insect, so spraying for one kills the other. This insect not only preys on milkweed bugs but also mosquitoes, flies, and cucumber beetles.

If you want to discourage the milkweed bug there are two methods you can use. Pick off the seed pods or spray with horticultural oil.

More information: [Milkweed bug](#) | [Tropical Milkweed](#) | EDIS [EENY489](#) | [Milkweed Assassin Bug](#)

Due to COVID-19 restrictions, all educational events are virtual. To see our online opportunities, please visit <https://lakegardeningprograms.eventbrite.com>.

Be sure to catch our *From the Extension* articles in the *Daily Commercial*! Read [April's Article](#) about: *Research-based best practices for working from home*

# Mourning Dove

By Jean Davidson, MGV

I like to describe the mourning dove (*Zenaida macroura*) as a peaceful bird. I have observed them in my garden as being very docile and rarely bothering other birds. However, they do become aggressive whenever they are defending their nest and discouraging other birds from getting near. Nest building is a shared responsibility for the monogamous pair. The male dove will bring the nest material and the female will build the nest. The nest is a very loosely constructed build.



Picture EDIS

Doves have a life of about one year, but in warm climates they can be prolific. A pair will have a brood of two eggs up to six times a year. They will nest from February to October. The eggs are incubated for two weeks and typically takes the chicks 14–15 days to leave the nest. While in the nest, they are fed “milk” produced in the crop of both adults. They continue to care for the young for another 10-12 days after they leave the nest.

The mourning dove is an average sized bird that is about 12 inches long and weighs from four to six ounces. The bird has a rounded head with a long tapered tail. The main colors are light gray and/or brown shades. Mourning doves eat about 71 calories a day. They tend to feed busily on the ground, swallowing seeds and storing them in an enlargement of the esophagus called, “the crop”. Once they’ve filled it (the record is 17,200 bluegrass seeds in a single crop). They have a seemingly odd head bobbing movement when on the ground that some say helps with balance, depth perception and vision. Further info: EDIS [WEC226](#)



Picture J. Davidson



Photos:  
R. Doherty



BY Reggie Doherty & Ray Rudolph

I was pulling weeds at our new home in Florida for the first time a few years ago and encountered a unique one with pretty, little white flowers. I pulled it and my hand lit up like a thousand bees stung me. I couldn't believe it! My hand was burning, turning a bright, reddish-purple and starting to go numb. I'd never had such a reaction. I ran into the house and doused it with everything I knew to combat the reaction I was experiencing, but nothing seemed to work.

By now Floridians are smiling because you know I just got stung by the *Cnidosculus stimulosus*, AKA Tread-softly, Finger-rot or Spurge (not-a-true-nettle) Nettle. A true Florida native and a real pain in the hand! Apparently, some of us are REALLY allergic to this spurge. We experience bad burning, discoloration, numbing, swelling, and itching for several hours whereas others may experience some or all of these symptoms for 30 minutes. I then recalled a presentation one of my fellow Master Gardener Volunteers gave on stinging nettles (*Urtica*) and asked Ray Rudolph to share it with me for this article.



Photos from EDIS



Stinging hairs on leaf surface.  
Kathleen Moore



Sources: EDIS [HB003](#) | [Spurge](#) | [UF/IFAS](#) | [Urtica](#) sp | [Urtica Doica](#) | [FDACS](#) | [Plants for a future](#) |

### Heart-leaf or fireweed (*Urtica chamaedryoides*)

A Florida native that blooms spring to summer. Weak-stemmed herb with brittle, bulbous-based, fluid-filled, stinging hairs. Has opposite triangular leaves with scalloped-toothed margins. There are minute, greenish flowers in spherical clusters in the leaf axils.

### Stinging Nettle (*Urtica doica*)

A perennial herb with oval shaped leaves, pointed ends, and jagged teeth. Leaves are arranged opposite each other along the stems with flowers in long compound clusters. Spiky, stinging spines most noticeable on leaves and stems.

More sources: [Plants USDA](#) | [NC Extension](#)

### Tread-softly or Spurge Nettle (*Cnidosculus stimulosus*)

This Florida native, perennial herb is an erect plant covered with stiff stinging hairs. The lobe-shaped leaves are bright green to dark green. Clusters of tube-shaped, white flowers are at the end of stems. The roots when cooked are edible and taste like potatoes.

# FEATURED DISCOVERY GARDEN

by: Jack Pounders, MGV

“Welcome to the land of Hydroponics.” It’s what we say to the young students that visit Discovery Gardens during their school field trip visit and in a way it’s true. Hydroponics is different from the traditional way of growing plants in the soil and has significantly changed over the years. Derived from Greek, *Hydro* meaning “water” and *ponic* meaning “working”, this type of gardening does not use soil. Our small hydroponic garden was designed to demonstrate the different ways to grow without soil and includes various types of vertical growing systems: bucket growing, tabletop growing, and recirculating. Our goal is to help educate the public on the differences, the pros and cons, and how to adapt them into a home garden.

Vertical growing systems produce the most in small spaces and can be adapted to any area around the home. Take a tower garden for instance, it is a self-contained system that requires no growing medium. It gets all of it’s nutrients from a mixture that is added to the water tank and pumped to the top of the tower where gravity then takes over. It then drips down over the plant’s roots to feed the plant and is captured back into the holding tank where it is recirculated.

The vertical stacking system requires a growing media, such as coconut fiber or a combination of peat, perlite, and vermiculite. The system is comprised of stacked pots with the drip irrigation running at the top supplying water and nutrients to the plants down below. This system can be placed in a greenhouse or in a backyard (space permitting).

Another hydroponic system used in Discovery Gardens is floating raft culture which is as easy as using a 5-gallon bucket or building a [floating table](#). Floating systems basically use Styrofoam as a raft to hold “net pots” that you put your plants in and fill the container with water and nutrients.

All and all we have had some very good successes in the area of hydroponics, and we have made some errors, mostly in plant choices. It all goes back to right plant, right place.



Photos: J. Pounders, MGV

Type of Hydroponic	Pros	Cons
<b>Aeroponics</b>	Requires any level surface. The pump works off a timer. It's the easiest system to maintain.	Can't grow root crops. Limited in the amount of plants per tower. High up-front cost.
<b>Vertical Stacking Systems</b>	One stack of pots allows for 16 to 20 plants per stack.  The system can expand to as many stacks as the space allows.	Fixed system, so not easily moved.  Not a recirculating system. Any nutrients and water not used, are lost, but can be watered for efficiency.
<b>Floating Raft Culture</b>	It's easy to construct and could be as simple as a kiddie pool or bucket with Styrofoam raft.	Limited to types of plants that grow successfully (E.g. small-rooted, short-season crops).

More information: Hydroponic [Vegetable Gardening](#) | [EDIS](#)

Photos of our Discovery Gardens hydroponic systems on next page

Bucket with drip line



Net Pot  
(photo from EDIS)



Closed system

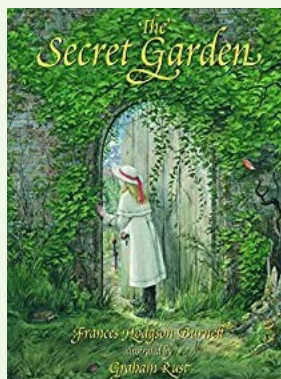


Karen S. Kennen MGv

### **The Secret Garden (1911) by Frances Hodgson Burnett**

This is a story of Mary, an unhappy, orphaned 10 year old girl who discovers a secret garden. Her new found love of the outdoors and garden lead to her awakening good spirits and love of life.

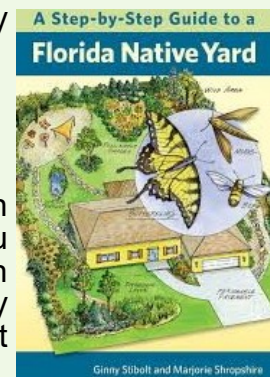
I enjoyed this as a child and read it again with just as much enjoyment as an adult. Part of the reason I was led to become a lifetime gardener is this book. Easy and inspiring read for any gardener.



### **A Step-by-Step Guide to a Florida Native Yard (2018)**

By Ginny Stibolt and Marjorie Shropshire

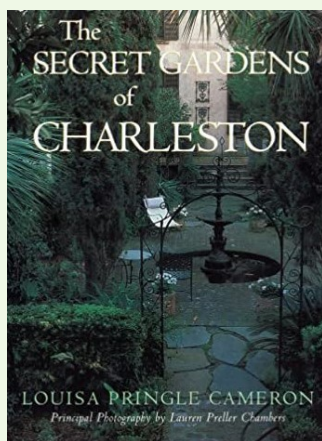
I recently had a question about how to landscape with native plants. There are several books available but if you want one that simplifies the process and you can implement in small sections at a time, this book fits the bill. It is an easy read with choices and guidelines to have a native plant landscape.



### **Secret Garden of Charleston (2005)**

By Louisa Pringle Cameron

I still remember my visit to Charleston and walking through the tree lined streets viewing historical homes. This books lets you into the secret parts of those homes with beautiful pictures and descriptions of including the authors own private garden. It is a book to enjoy reading and look through.



## **Growing Together from a Distance**

We are pleased to announce a new offering of virtual gardening classes through UF/IFAS Extension, Lake County.

Join us on Zoom every Friday afternoon starting on May 15<sup>th</sup> at 2:00 pm. Register for each of the live, online gardening classes by noon the day before at

<https://lakegardeningprograms.eventbrite.com/>

You must register for each individual class.  
We hope to see you online!

**May 15<sup>th</sup> Easy to Grow Vegetables**

**May 22<sup>nd</sup> Backyard Chickens**

**May 29<sup>th</sup> Container Gardening**

**June 5<sup>th</sup> Homeowner Citrus**

**June 19<sup>th</sup> Cultivation & Culinary**

**Creations with Herbs**

**UF/IFAS Extension, Lake County**

1951 Woodlea Rd.

Tavares, FL 32778

**For more information, contact:**

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