



In this Issue

Title	Page
Snakes on the Move	1
Plant Profile	2
Fungal Lawn Diseases	3
Upcoming Events	3
Is Your Water Hard?	4
Good Bugs/Bad Bugs	4
When to Plant Edibles	6



Snakes on the Move by Maxine Hunter

It is hot, hot, hot! If you have new wild friends visiting you, it is likely that you can thank the heat and heavy summer rains that we have been getting. Many animals, including snakes, are looking for higher ground. Be aware of your surroundings and watch where you step. During these hot periods, animals are out looking for water, shade and shelter. Among other local wildlife, snakes peak an interest to many people. Some people have fear and others are truly just inquisitive about them. Either way you feel, the truth is when it's hot, snakes are on the move.

So what should you be on the look for? First, our native snakes camouflage very well and can be difficult to spot until you are very close. Secondly, snakes play an important role in our ecosystem and our often our first line of defense to

some pesky problems such as rodents. Look down when you are walking, especially in areas that are not well traveled or that have excess brush growing. IF you come across a snake, try to take a few steps back and be mindful of the direction it is going, let



Eastern Rat Snake

Photo Courtesy of Maxine Hunter

it continue on its way. You can identify different snakes from a distance by taking photos and then using either your local Extension service or websites such as the <https://www.floridamuseum.ufl.edu/index.php/herpetology/fl-snakes/identification/>

We have 44 species of snakes in Florida, however, only 6 of them are venomous. Two of these six venomous species are rarely found in central Florida, the copperhead and timber rattler are normally only located in more northern areas of our state. The other four species include the diamond back rattlesnake, pygmy rattlesnake, coral snake and water moccasin. Snakes in their natural habitat should not be bothered, even if they are venomous, it is easy to avoid problems with them by simply staying back and letting them move away on their own.

Plant Profile:
Beach Sunflower

Helianthus debilis



The beach sunflower (aka dune sunflower) is a Florida native that's perfect for hot, dry sites. It's a fast-growing perennial plant that blooms almost year round with two-inch blooms. The beach sunflower is highly salt-tolerant and thrives in sandy, well-drained soil in full sun. It spreads by above-ground stems and by seeds. The stems are easily rooted whenever they touch ground. Under adequate growing conditions, it becomes a shrubby ground cover of about two feet tall. It is used as a butterfly attractant, in borders or mass plantings, or cascading down a wall.

USDA Planting Zone: 8b-10

Height: 2—4 feet

Spread: 2—4 feet

Light: Full sun

Plant Spacing: 16—24 inches

Soil: Sandy or loamy

pH: Acidic to alkaline

Some species are often thought of as snakes, but are actually not. One example is a glass lizard, (genus *Ophisaurus*) which is a lizard with no legs. Snakes have no eyelids and are unable to close their eyes, clear scales cover and protect their eyes. Snakes also have no external ears, so if the reptile you are identifying has eyelids that can be closed or has ear-openings on the side of the head, it is a lizard and not a snake.



Eastern Glass lizard, *Ophisaurus ventralis*
Photo credit: Maxine Hunter

Wildlife have become a greater problem for Florida residents as our population has encroached on their native habitats. Wildlife are beneficial and enjoyable, but everyone is happier if close encounters are kept to a minimum. This is one reason that feeding wildlife is illegal. Feeding wildlife, can make them dependent upon



Black racer. *Coluber constrictor*
Photo credit: Maxine Hunter

people and can create dangerous situations. If you feel that you are having a wildlife problem (which can be costly, annoying, or potentially hazardous) the first step is identification of the pest. If you are not sure of the identity, take pictures of tracks, scat, den size and shape, time of day problem is occurring, damage, and any other related

observations and seek help identifying your critter problem (from your local extension office).

Once identification has been confirmed, you can put a management strategy in place. If you are not fond of the wildlife you are enduring, then take the time to remove attractants from your landscape such as shelter and hiding places (firewood piles, thick brush, and snags). Remove food sources such as pet food, household scraps, and do not put your garbage out early. Use deterrents such as fences, commercially sold odors, sound machines, scary decoys, and as a last resort chemicals or traps.

Be aware that moth balls are not an acceptable solution no matter who recommended them! Moth balls will not deter snakes as they do not smell like we do. It is illegal to place moth balls in any place other than sites allowed per the label instructions. The same is true with all pest control chemical deterrents and poisons, these labels are federally regulated and provide instructions to keep you, your family, and the environment safe.

Upcoming Events July through September

Bellevue Public Library Satellite Plant Clinic

13145 SE Hwy 484, Bellevue
10 a.m.– 1 p.m.

July 5 and 19

August 2 and 16

September 6 and 20

Downtown Farmers Market Satellite Plant Clinic

3rd Ave and 3rd St, Ocala
10:00 a.m.- 1:00 p.m.

July 6

August 3

September 7

Dunnellon Public Library Satellite Plant Clinic

20351 Robinson Rd, Dunnellon
10 a.m.-1 p.m.

July 2

August 6

September 3

Master The Possibilities

On Top Of The World
8415 SW 80th Street, Ocala
10.00 a.m. -11:00 a.m.

Gardening for Birds: July 12

Pests in the Garden: Aug 9

Crape Murder: Sept 13

Children's Gardening Festival

August 31, 2019

9 a.m.—2 p.m.

UF/IFAS Extension Auditorium
2330 NE Jacksonville Rd, Ocala

Tis the Season for Fungal Lawn Problems

Amanda Marek, Florida-Friendly Landscaping Agent

It never fails. Around this time each year the Extension Service gets inundated with calls from distressed homeowners and landscapers about dying lawns. This year has proven no different. Multiple grass samples have been analyzed by the UF/IFAS Extension office in the past weeks and the most common culprit have been fungal diseases, notably large patch and root rots.

Large patch, also known as brown patch, is an insidious fungal disease in that the symptoms don't make themselves really known until spring when the grass should be greening up. In actuality, the disease began infecting the lawns in winter so by the time the large brown patches of dead or dying grass are seen, the disease is well established and therefore much more difficult to eradicate.



Large Patch Disease
Photo credit: hort.ufl.edu

The other fungal diseases we are seeing a lot of right now are root rots, Root rots are evidenced by dark roots with very few if any fine root hairs. A healthy grass root should be white and covered in many fine root hairs. Nematodes can also be to blame for black, stunted, rotted roots and oftentimes infect lawns weakened by fungal diseases.

So what should you do if your lawn has large patches of brown, stunted dying lawn? First, call or visit your Extension office. Photos are helpful to start but the best way to confirm the presence of diseases or pest issues is to bring in fresh samples of lawns. A 4" x 4" square of lawn with roots and dirt intact will usually suffice, although a larger sample with more soil may be needed if testing for nematodes.

If large patch and/or root rot are confirmed in your lawn, a fungicide will need to be regularly and repeatedly applied according to the label instructions. Fungicides work as preventatives, not cures, so the areas of grass that are infected will stay infected. In other words, your lawn may look worse before it begins looking better. The repeated application of fungicide and use of good lawn management practices will, with time and patience, allow healthy grass to fill in the dead patches.

Although we can't do anything about the weather, whether it's excessive rain like we had this past winter or the extreme heat we're experiencing now, the best method to prevent large patch and root rot is to maintain a healthy lawn. For more information about lawn best management practices, such as proper irrigation, mowing and fertilizing, contact your UF/IFAS Extension office.

Good Bugs / Bad Bugs

Lacewing (Good Bug)



Lacewings are common insects found visiting gardens and flower beds at dusk. They are greenish in color, about 3/4 inch in length. Their wings are transparent and covered in fine green veins. Adult lacewings are most active in the summer months. The adults feed on aphids or pollen.



Lacewing larvae Source: Bugguide.net

Lacewing larvae are commonly called aphid lions and feed on aphids, scale insects, whiteflies, thrips, other small insects and their eggs. They are voracious feeders and can consume up to 200 aphids or other prey per week.



Lacewing eggs Source: Bugguide.net

Continued on page 5

Is Your Water Hard?

Yilin Zhuang, Water/Energy Extension Agent

Have you noticed some white buildups on dishes after you run the dishwasher? Do your faucets have a crusty sediment on them? Highly likely it is because your water is hard.

What is hard water?

Hard water comes from calcium and magnesium that are naturally found in the underground rock layers of limestone where we withdraw groundwater. Hard water is not harmful for human consumption.



Calcium Buildup on a Faucet. Source: Mr. Rooter

From a health standpoint, calcium and magnesium have no adverse effects. In fact, they are essential daily minerals that our bodies need. However, when calcium and magnesium permeate water, they build up on contact surfaces, such as pipes and water heaters, and decrease the effectiveness of soaps and detergents.

How hard is our water?

The hardness of water relates to the amount of calcium and magnesium in the water. The more minerals present, the harder the water is. Hardness is expressed in one of two units of measurement: parts per million (ppm) or grains per gallon (GPG) of calcium and magnesium dissolved in water. One ppm means that one unit of calcium carbonate is dissolved in one million units of water. When these minerals in water are higher than 120 ppm or 7.0 GPG, the water is considered hard by drinking water standards. Table 1 shows the degree of hardness standard as established by the American Society of Agricultural Engineers (S-339) and the Water Quality Association.

Table 1. Water Hardness Classification

Degree of Hardness	Parts Per Million (ppm)	Grains Per Gallon (GPG)
Soft	<17.0	<1.0
Slightly Hard	17 – 60	1.0 – 3.5
Moderately Hard	60 – 120	3.5 – 7.0
Hard	120 – 180	7.0 – 10.5
Very Hard	>180	>10.5

The hardness of water in Marion County is around 180 ppm or 10.5 GPG. Yes, our water is “Hard”, but not “Very Hard”. When the hardness is higher

Good Bugs / Bad Bugs

Leafminers (Bad Bug)



Source: hort/uga.edu

Leaf miners are an extremely common garden pest. Leaf miners are the larvae of flies, moths, or beetles that feed (or mine) between the upper and lower epidermal leaf surfaces. The larvae tunnel through the leaf creating a mine that may be narrow, whitish, and linear; serpentine or winding; or blotchy. The tunnel is often clear except for a trail of black fecal material left behind as the larvae feed. In low numbers, leaf miner damage is usually cosmetic, however severe infestations can reduce the photosynthetic capabilities of the plant. Leaf miners are difficult to control because they are protected by the leaf tissue. To manage a leaf miner infestation, prune off and destroy infested leaves or plant parts.



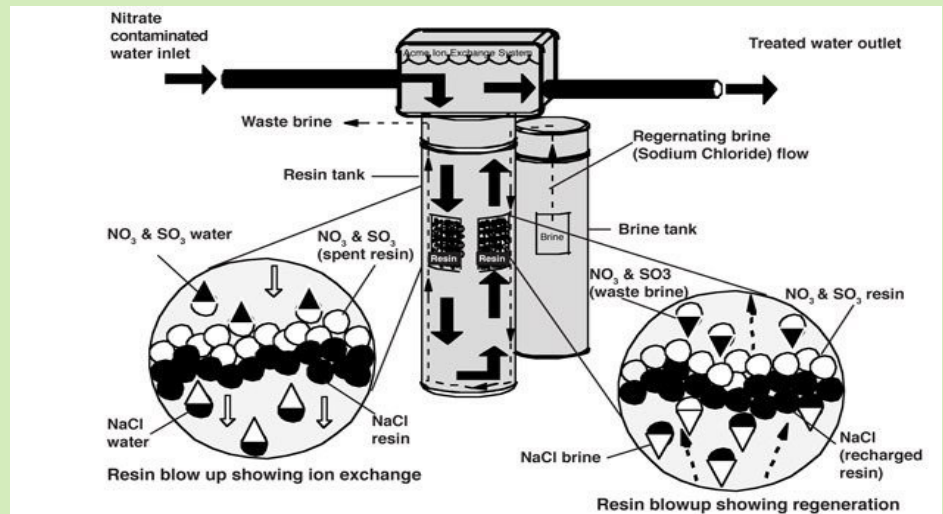
Azalea leafminer

Source: ncsu.edu

than 200 ppm, water treatment plants usually soften the water if you get your drinking water from a local utility instead of a private well.

How to soften the water?

To soften or not to soften? It is a personal preference. If you choose to remove the hardness (i.e., calcium and magnesium) from your water, a traditional ion exchange unit is the most effective way to do so. It is often referred to as a water softener. In these units, the negatively charged calcium and magnesium ions in the water are exchanged with the positively charged ions, typically sodium, as shown in Figure 2.






Ion Exchange Process inside a Water Softener.

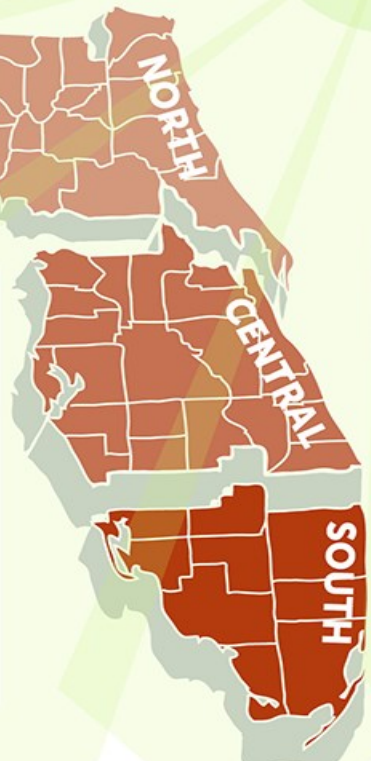
Image Source: Penn State Extension

Keep in mind, to remove one unit of hardness, you are adding about half a unit of sodium into the water. You won't taste the sodium as the added amount is not too much, but it is too much for someone who is on a low sodium diet. There are some new water softeners that use potassium instead of sodium. The ion exchange process is the same, but with the addition of potassium instead of sodium to the water. Talk to your doctor if you have a kidney problem before drinking potassium-softened water. Instead of a whole-house water softening system, you can also install a by-pass system. In that way, hot water line will be softened but cold water will not. Then you won't be drinking added sodium or potassium. Also, your plants don't like high salinity. Do not forget to get a by-pass for your irrigation system too.

Recently there are some non-traditional softening units using magnets, electronic charges, or citric acid to remove hardness, but they have shown mixed results of effectiveness and are not generally recommended.

EDIBLES TO PLANT IN AUGUST

	North	Central	South
 Survives Transplanting	Broccoli, Cauliflower, Collards, Peppers, Tomatoes	Broccoli, Collards, Eggplant, Peppers	Collards, Eggplant, Peppers, Tomatoes
 Transplant With Care		Celery	
 Use Seeds	Beans (bush, pole, lima), Corn (sweet), Cucumbers, Onions (green, shallot), Peas (southern), Pumpkin, Squash (summer, winter), Turnips, Watermelon	Beans (pole), Corn (sweet) Okra, Onions (green, shallot), Peas (southern), Pumpkin, Squash (summer, winter), Watermelon	Beans (pole, lima), Cantaloupes, Corn (sweet), Okra, Peas (southern), Pumpkin, Watermelon






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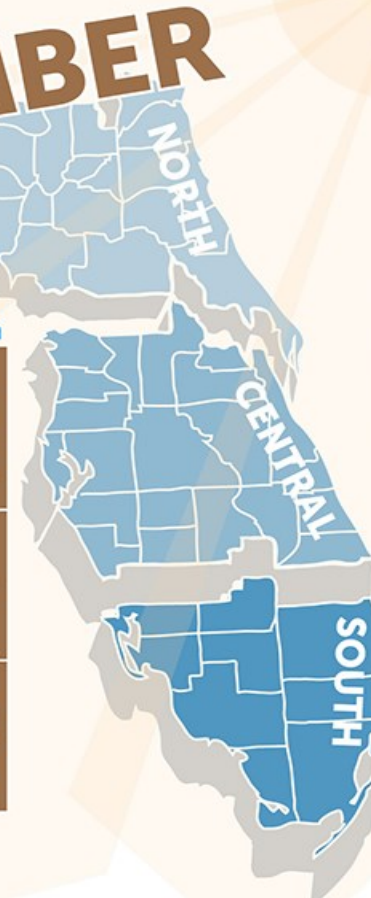


Gardening SOLUTIONS

For more information, please visit GardeningSolutions.ifas.ufl.edu

EDIBLES TO PLANT IN SEPTEMBER

	North	Central	South
 Survives Transplanting	Beets, Broccoli, Cabbage, Cauliflower, Collards, Endive/Escarole, Kale, Kohlrabi, Lettuce	Broccoli, Cabbage, Collards, Eggplant, Endive/Escarole, Kale, Lettuce, Peppers, Tomatoes	Broccoli, Cabbage, Collards, Eggplant, Endive/Escarole, Kale, Lettuce, Peppers, Tomatoes
 Transplant With Care	Carrots, Mustard	Celery, Mustard	Mustard, Potatoes
 Use Seeds	Beans (bush, pole), Cucumbers, Onions (bulb, green, shallot), Radish, Squash (summer), Turnips	Beans (bush, pole, lima), Corn (sweet), Cucumbers, Onions (bulb, green, shallot), Peas (english, southern), Radish, Squash (summer), Turnips	Beans (bush, pole, lima), Cantaloupes, Corn (sweet), Cucumbers, Okra, Onions (bulb, green, shallot), Peas (english, southern), Pumpkin, Radish, Squash (summer, winter), Watermelon



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