**June 2021** 

## **Report from Your President:**

by Lois Cantwell

In this issue you will be reading reports from a variety of sources. There are stories about a pocket garden, a northern garden, a walk in a park, a trip to a state park, and more. It is refreshing to have input from more of our members. I certainly encourage those of you who have something to share with our readership, so send us your stories and photos. Email us at mangrovechapter@fnps.org.

Please welcome new members: Carol Mitchell from Sarasota; Christa McElory from Punta Gorda; and Richard Lang from Sheboygan, WI.

Click here to Visit our Website

## 2021 40th Annual FNPS Conference (Virtual via Whova)

by Linda Wilson

I have attended these conferences for many years. The first was at New College in Sarasota in the 80's, I believe. This year, of course, it was virtual. This was my first virtual conference and it was excellent. Whova with the videos from YouTube was extremely organized and easy to follow. There was a silent auction with many trees offered, trips and gift certificates. I shopped but didn't buy anything so I am not sure how that process worked. I missed the large book sales that are at all the conferences. It is also a way to see another part of the state but, of course, not this time.

Saturday was kicked off by the keynote speaker, Craig Huegel on Pollinators. I think most of us have heard him speak but I love his passion and he is so knowledgeable. We focus so much on butterflies that we are ignoring the importance and variety of the bees, beetles, wasps and birds that are also providing us with many benefits to our health and diet. There are about 300 species of bees in Florida. Most of them are solitary not hive builders. He encouraged us to leave snags and dead underbrush(don't be so neat!), to plant for them as well as for butterflies. Some suggestions were Live Oak, Elms, Maples, Privet Cassia, WildCoffees, Fakahatchee grass, Lopsided Indian Grass(grasses are needed to hold up things like Liatris), Pepper Grass, Dotted Horsemint, Black Eyed Susan, Pawpaw, Gopher Apple, Stoppers, Rouge plant, Scarlet Sage, Coral Honeysuckle and Firebush. Leave some bare soil for the bees and beetles that need that. Not everything needs to be

mulched. If you must dead head and clean up do it in the spring not the fall when lots of creatures use dead wood for hiding and

places for young to grow and overwinter. He recommended Jaret Daniels and Mark Minno books. I am assuming that as native plant people we are already NOT using pesticides and severely limiting herbicides but Craig reiterated the importance of this. Our focus should be on the whole healthy habitat with trees, shrubs and grasses not just flowers.

The next speaker was on a **Turf Swap program** in Alachua County. I plan to encourage the new Charlotte County Water Quality Manager to possibly copy their program. This program educates people as well as developers as far as wasteful uses of water for lawns and avoiding the fertilizers and other chemicals from polluting our ground water. There is a need to prohibit new irrigation wells. I'm not sure they are even regulated here. The belief that reclaimed water should be used for watering is unfortunately allowing some very nasty things such as copper to be introduced to our water table. This program also trades some grass use to native plants in the new developments and also in older homes with high water use.

The next speaker was an NGO that does **Prescribed burns** in North Florida. They also train new burn bosses. There is no such program in our area, I'm not sure why. If you haven't seen the wildflower explosion after a burn you really should make a point to do that. This past year, Myakka State Forest did a lot of burning and the flowers were amazing. I've never seen so many Drumheads, Colicroot, orchids, and milkweeds.

The next speaker was a **landscape architect** who spoke on the need to **transition to a new mindset.** We cannot keep up the use of chemicals, water and grass use that we are following. We need to reimagine what we can accomplish for the world at large not just our little quarter acre piece of property. She talked about "Green Mulch". Frog fruit was her example. It is a great pollinator plant which can be mowed and walked on. She recommended The Overstory by Richard Powers.

The next speaker was **Land Management for Pollinators.** Again, the same message as Craig with some more plant ideas. Blueberry, Silverleaf Aster, Summer Farewell, Beautyberry, Rubus, Partridge Pea, Mimosa, Bidens, Spiderwort and Blanketflower. Again, don't be so neat.

The next speaker was on **Floating Wetlands and shoreline restoration.** As alternatives to algacides(copper,etc.) it was suggested that we use plants with large tap roots not always grasses to capture excess nutrients. Duckweed apprently blocks sunlight and therefore kills the bad algae. Of course, no mowing to the edge which should be a given with safety as a first concern. Children are not apt to wander into water if they have to navigate some vegetation and mowers won't be injured when they accidentally overturn. This happens more than you think.

The rest of the afternoon was studies done by mostly **Archbold Biological Station interns**. I need to remember to go there next winter when it's cool. The studies included Patterns in Long Leaf Pine communities, Phenological divergence in Garberia heterophylla, Above Ground Biomass and effects of time since fire on insect herbivory of Lyonia fruticosa.

On to Sunday, I skipped the first morning program as it was school children related. The first of intreest for me was a wonderful program from a condo unit association that did a huge **project on several ponds on the grounds** where they removed invasives and replanted natives. They had received several grants as they are open to the public and

have a nice walking path available to all who visit.

The next program was a cartoon focusing on **children and gardening**. If anyone does childrens programs I thought it was wonderful and I believe done by a teacher and students.

The next program was a Miami project that is focused on trying to propagate all the species of **Milkweed** that are found in that county. They collected local seeds and did a lot work getting them to thrive so that they can then be replanted at natural sites in the area. It was mentioned several times during the weekend that the exotic scarlet milkweed, Asclepias curassavica, has now been reported in several wetland areas. Everyone wanted to get plants but it is very hard to do this in quantity.

The next program was on the **Bromeliad Conservation Project.** Tillandsia utriculata. This was presented by someone from the Enchanted Forest on the other coast. They have been collecting them, spraying them with "Safari", leaving them for a few days and then placing them in the large cages you may have seen around. I noticed one at Carlton Reserve when I was wandering there a few months ago. They are also participating in a study of a fungus that may deter the beetle.

The next program was on **Chapter Development.** Our Chapter is doing an amazing job especially with the new board members that have contributed so much. We do need new blood since I am very tired and want to retire as Treasurer and I think Lois as well. They urged new projects to spur more volunteers. Apparently, if you start new ones people sign up to help after the fact!?!

The last speaker was on the **Native Plant Conservation Campaign.** Plants compose 50% of listed species but receive 5% of funding. There are 6 biils at the Federal level that would allow money to use for native plants. President Bidens Build Back Better bill has money for resilence from climate change for example. Lots of studies have been done (possibly Covid gave people time to finish writing them up) on plants, birds, fish etc. that are encouraging from an environmental standpoint. She urged us to sign up for NPCC news. This is a group of native plant societies(plantsocieties.org) working to bring a bigger voice to our message. She seemed very hopeful of the future at this time. So many people were home learning things about native plants, pollinator gardening, pesticies, etc. that we may be heading in a more hopeful direction.

I enjoyed the conference more than I thought I would. It was nice to do this at home. I had no connection issues as I usually do with Zoom. Everyone's questions were answered at the end of each program and there were many opportunities to chat with others. I think they may do this every year along with the in person meeting so I would recommend

this to anyone. Several speakers remarked on the low to no availability of native plants to buy for home and businesses. Anyone looking to start a business should consider this. It's always refreshing for me to be part of a group doing something good for the world and sharing knowlege is key. I think you can view the entire conference on line and I encourage you to do so.

Editor's Note: This is my first annual conference. I loved it! I agree with Linda's comments about the programs. Time away from home and the cost of the conference plus hotel and meals makes it prohibitive for me to attend in person. The online version was wonderful and I also had no connection issues. I will definately attend if it is offered online again.

# We are on Facebook!!! Look for: Mangrove Chapter of the Florida Native Plant Society

## **Mangrove Chapter Field Trip Reports**

by linda Manley

#### Lemon Bay Park May 5, 2021

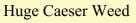


Four of our members gathered at Lemon Bay Park on May 5 with the intent of checking out the regrowth after a controlled burn about a month before. We expected to find wildflowers that had been stimulated by the burn, but the regrowth was not what we anticipated. We found only milkpea, which had sprouted everywhere, although

regrowth of ferns and saw palmetto had reached well over a foot tall in many places. We believe the burn might have been hotter than expected. It's unusual for sabal palms to burn nearly to the top, and many pines were more damaged than we thought normal for a controlled burn.

Outside the burn area, we were shocked at the height of the Caesar weed, which must have been at least seven feet tall! Just a month ago it was perhaps four feet, and I didn't realize it ever grew so tall. We found a single plant of tropical milkweed, not a Florida native species, but butterflies seem to like it anyhow.







Tropical Milkweed



Cavity Condo

Across the path from the burn, we found many blackroot plants. This tiny, tiny spider made blackroot its home. Sea oxeye was just beginning to bloom. As the buds form, they are not much different in color from the leaves, but they get brighter as they open. We were pleased to find this cavity condo! We saw pileated woodpeckers in the area, and of course, red-bellied too.







Burn area

Sea Oxeye

Spider

## **Rainbow Springs**

by Linda Manley



I have fallen in love with Rainbow Springs near Dunnellon and can highly recommend it if you ever get the urge for a road trip. It started life as a phosphate mine and was redesigned as a tourist attraction in the 1930s. The state took it over as a state park in the 1970s. The original designers imported many exotic tropical plants, as was the fashion in those days, creating a feel more like Central America than like Florida. They created several beautiful manmade waterfalls from the

tall stacks of mine tailings. Among the exotic plants, we found natives as well. The scarlet morning glory attracted much attention and the spiderwort was among the tallest I've ever seen. The pure spring water bubbling up from underground was fascinating. In the photo, the stream bottom is dark, and every splotch of white sand is where water emerges to the surface. The most popular part of the park is probably the area roped off for swimming, which is at the source of the primary spring. It was disappointing to see so much algae growing where seagrass should be in the otherwise crystal-clear water. The park is heavily shaded with wide, hard-surface walking trails and is overall a wonderful experience.







Rainbow Springs Path

Waterfall





Ipomoea Hederifolia Scarlet Creeper



Rainbow Springs Bubbling spring

Waterfall

## Big Cypress Boardwalk Trail



A visit to the Big Cypress Boardwalk Trail in Goethe State Forest was wet and wonderful. The steady drizzle didn't deter us from walking the short boardwalk leading to the base of a towering cypress tree more than 900 years old, with other giants nearby. Showing Dave beside the tree does little to indicate its true size. In addition to this immense tree, the forest contains a variety of trees such as loblolly pine and red buckeye. I was so happy to see a Jack-in-the pulpit, which I hadn't seen since I left the Midwest. We found an out-of-season clump of ringless honey mushrooms as well as sabatia and rain-kissed ruellia. The forest was lush and refreshing green, a welcome break from the drought in other places.



Sabatia Rose of Plymouth



Ringless Honey Mushrooms



Ruellia





Red Buckeye Aesculus Pavia

Jack in the Pulpit

Loblolly Pine

## From Boone, North Carolina

by Bill Dunson

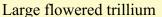


I do not know if you read the "funnies", but here is an amusing piece from today's paper. For those of us that grow "weeds" one of the secondary advantages is that there is less pulling of unwanted vs desirable weeds.

Here in Boone NC the azalea bushes are finishing up and the rhododendrons are just starting to bloom. Viburnums are either blooming or in bud. Bluebirds are breeding away. The wildflowers are fabulous with bluets and fire pink in full bloom. Lots of trillium in places where deer are not so numerous or cannot reach the flowers on steep banks. It is a wonderful time of year although we had a frost on May 13, hopefully the last one of the season.

Our wildflower meadow hillside is thriving with golden ragweed and daisies in bloom and lupines in bud. Many more species to come in the normal phenology of blooming. We have about 126 species of plants in our front yard not including the wild woods in the back 2 acres.







Tiger swallowtail on azalea flowers



Bluets



Wildflower meadow



Fire pink

After about two weeks back in our summer Boone NC home, we are enjoying cool nights in comparison with SW FL. In late May the rhododendrons are just starting to bloom and the azaleas are finishing up. Some viburnums are in bloom and others are still in bud. Golden ragwort are in decline and daisies rule the roost. Lupines are starting to bloom but coneflowers are just growing their leaves. Butterflies are beginning to appear but are certainly at a low ebb compared to what they will be later in the summer.

Here is an eclectic assortment of some butterflies, dragonflies and odds and ends of insects I have encountered in the last two weeks.

Boone, NC Yard at 3400 feet. The aquatic insects are mainly found at Bass Lake on the nearby Blue Ridge Parkway



Common Whitetail Dragonfly



Spring Azure



Bee Fly Bombylius major parasite on bees



Cricket



Male Blue Dasher



Tiger Swallowtail on Azalea



Pearl Cresent



Calico Pennant

### A Pocket Garden

by Carolyn Gregsak

The Pocket Garden is an inset area 6' deep and 12' feet wide between my condo and my neighbor's. The condensation drains of both condo air conditioners drip into either end of the inset area. In the morning the shadowed southern exposure keeps the space cool. When afternoon arrives, the sun shines full into the open space. A garden umbrella helps to mottle the intense light. Because of the inset, I named the area The Pocket Garden and it has been transformed several times. This last transformation was from potted plants and persistent Elephant's Ears to a rain garden.

When I decided to dig rather than use pots, I had some hard work ahead of me. The damp hard-packed soil was



buried under landscaping rock and a layer of tough contractors' weed barrier. I had to cut the weed barrier and pull it out in sections from under the rocks. Wherever I wanted to dig a hole for a plant, the rocks were moved aside to expose as much soil as possible. A layer of rocks embedded in the soil made some areas impossible to dig.

I use the word "soil" loosely in reference to this small garden area. Hard-packed dirt combined with contractors' cement buried under plastic and rock does not provide much promise for a flourishing garden. But, flourishing, it is. The Yellow Flag blooms daily and the Milkweed has clusters of buds. The holes in the Milkweed leaves signal health and the presence of baby Monarch caterpillars. Horsetail and ferns are spreading and sprouting up through the rocks. Bees are visiting the potted Skyflower. Its clusters of white-edged flowers wave at me outside my study window.





#### NATIVE

Horsetail, *Equisetum* - a vascular plant related to ferns; it produces by spores, rather than seeds. The oldest remains of this plant date to the Jurassic Period. When the Equisetum was more diverse, it dominated the Paleozoic forest. Some were large trees, reaching to nearly 100 feet. Our present Horsetail is considered a living fossil. It is native throughout temperate zones and the Arctic. Considered invasive in New Zealand, its rhizomes reach deep, making the plant hard to get rid of. It is used as an abrasive cleaner and, although it can be toxic, it has been used in Traditional Medicine,

Blue Flag, *Iris vericolor* - likes stream banks and shores; tends to form large clumps from thick, creeping rhizomes. Native to N America and Eastern Canada; state flower of Tennessee.

<u>Yellow Flag</u>, *Iris pseudacorus* - common in wetlands, tolerates submersion but can survive prolonged dry conditions; spreads quickly. Leaves are similar to Sweet flag with prominently veined mid-rib and sword-like shape, but the two plants are not closely related.

Blue-eyed Grass, <u>Sisyrinchium albidum</u> - enjoys partial sun and well-drained soil. Flowers open in the morning, close in the evening. After flowering and the leaves turn brown, cut back just above the crown and mulch with organic material. This allows the rhizomes to gather energy for the next season's bloom. Large clumps can be dug up and separated in early spring-late winter. Although stems can grow to 24", this plant is attractive in rock gardens, borders, containers, and wildflower meadows. Blue-eyed grass is not a member of the grass family; it is in the iris family.

Pink Swamp Milkweed, Asclepius incarnanta - This plant will tolerate heavy clay, but wants rich, moist, slightly acidic soil and sunny skies. The flowers are fragrant and attract butterflies and hummingbirds. The plant is a larval host for Monarchs and Queens. Some species of Milkweed have been used in Traditional Medicine.

Giant Leather Fern, Acrotichum danaeifolium - tolerates shade, but prefers full

sun; needs constantly wet soil. It is the largest fern in Florida and grows throughout the peninsula in wet prairies, swamps, and marshes. Due to cold tolerance, this fern is found only in Florida in the United States. It is also native to the Caribbean, Mexico, C America, and S America to Brazil. One source includes West Africa. The fern has both fertile and infertile fronds. Spores on the undersides of the fronds give the fern a leathery look. Because of its massive growth (fronds can grow to 12' long), the Leather Fern provides cover for birds and animals. The strong root system with its networks of rhizomes or underground stems helps prevent erosion along ponds, lakes and streams. Its salt tolerance enables it to grow among the mangroves. It is often used in landscaping as a specimen plant and in habitat restoration. The Seminoles used the plant as a body rub for high fevers.

Cinnamon Fern, <u>Osmunda cinnamomea</u>, Osmundastrum cinnamomeum - This fern likes to be in moist, rich acidic soil and sheltered in partial shade. It is adaptable, but not salt tolerant. It grows in 2'-3' clumps and can reach 5' in height. Leaf segments are rounded at their tips. The fronds occur on groups rising from a shallow, black rootstock. Fertile fronds become a thick spike of green dots of fruit that become brown. Sterile fronds bend outward forming a vase-shaped circle enclosing the cinnamon fronds. The fuzz on the fiddleheads is used by birds for nesting material. The bristly root crown, osmunda fiber, is used for potting orchids. Propagation is by root division.

Golden Canna, <u>Canna indica</u>, Canaceae family - Cannas can be red, yellow, orange, or any combination of these colors. They enjoy full sun, well-drained rich or sandy soil and are related to ginger, bananas, arrowroots, heliconias, and Birds of Paradise. Cannas are a source of starch for human and animal consumption; their swollen rhizomatous root stock contains the largest starch grains of all plant life. Fiber from the stem is used as a jute substitute and the leaf fibers are used for making paper. Purple dye is obtained from the seeds.

#### **NON-NATIVE**

Bicolor Caladium, *Araceae* family - a vascular plant that produces spores and likes full to partial shade surrounded by hot, humid weather; it is tuberous and related to Elephant Ears and Angel Wings. All parts of Caladiums are poisonous. Avon Park, Florida is home to an annual Caladium Open House in early September. My Caladium sprouted by surprise two years after I thought it had died out. It seems much happier surrounded by like-minded plants.

Coralbush, <u>Jatropha</u> multifida, a <u>Euphorbiaceae</u> in the <u>Spurge</u> family - flowers best in full sun; drought-tolerant, but not salt tolerant. Pinch branch tips in early spring with clippers when plant is 2' high to produce lush branch growth. Pinch off tips each year until plant reaches 6'. Exudes a latex sap that can be an irritant. A native of Mexico, Guatemala, and the Caribbean; it is non-deciduous.

Skyflower/Sapphire Showers/Pigeonberry, *Duranta erecta, Verbena family* - full, hot sun, moderate water; tolerates dry or humid weather, poor soil and likes the beach. Roots easily from leaf, stem, or softwood cuttings. Fertilize every 3 months. Prune in late winter. Butterfly attractant. A native of Mexico, S America, and the Caribbean.

The ferns, Horsetail, and Blue flag were purchased from Laurel Schiller's Florida Native Plants Nursery out on Myakka Rd in Sarasota. Sweet Bay Nursery on Erie Rd in Parrish had the Blue-eyed Grass and Swamp Milkweed. A generous friend contributed the Canna, Coralbush and Yellow Flag. I caved when I saw the Caladium and Skyflower at a Big Box nursery, so they came home with me to round out the color scheme.

## **Cedar Point Wading Trips For JUNE**

Charlotte Harbor Environmental Center and the
Charlotte County Natural Resource Department will be conducting the following
free programs to the public in **June 2021.**All programs can be found at **www.ChecFlorida.org** 

#### **Seagrass Wading Trips**

All public wading trips take place in Cedar Point Environmental Park and are free to the public. On these guided programs with local experts, you'll experience a short guided hike through various ecosystems of the park, and then you will get to wade into the shallow waters of Lemon Bay and use dipnets to sample all the incredible wildlife that lives within the seagrass flats. **Prepare for each walk with plenty of water, insect repellent, sunscreen, and clothing comfortable both for hiking and being in the water.** 

Advance registration is required. The health and safety policies for our programs are subject to change. For information on mask requirements and Covid-19 safety precautions, please contact *gerald@checflorida.org*. For more information or to register, call at **941-475-0769**. Trips are currently limited to 12 people, and wait lists are available for every trip.

Thursday, June 10<sup>th</sup> Join CHEC for a wading adventure through the seagrass beds of Lemon Bay! All participants will be guided approximately a halfmile to the wading site, where they will collect and view creatures of the bay. Participants will need to wear closed-toe shoes and clothes that may get wet during the trip. Participants are also encouraged to wear sunscreen and insect repellent and to bring plenty of drinking water. Advance registration is required. Call 941-475-0769 for more information or to register. Trips fill up fast! Meet in the Cedar Point parking lot near the restrooms at 9:00 AM.

Thursday, June 24<sup>th</sup> Join CHEC for a wading adventure through the seagrass beds of Lemon Bay! All participants will be guided approximately a half-mile to the wading site, where they will collect and view creatures of the bay. Participants will need to wear closed-toe shoes and clothes that may get wet during the trip. Participants are also encouraged to wear sunscreen and insect repellent and to bring plenty of drinking water. Advance registration is required. Call 941-475-0769 for more information or to register. Trips fill up fast! Meet in the Cedar Point parking lot near the restrooms at 9:00 AM. Go to www.CHECflorida.org for a complete program calendar.

### **CHEC Nature Walks for June**

Charlotte Harbor Environmental Center and the Charlotte County Natural Resource Department will be conducting the following

## free programs to the public in **June 2021.**All programs can be found **at www.ChecFlorida.org**

#### **Nature Walks**

All walks begin at **9:00 AM**. On these casual walks with CHEC volunteers, you will search and learn about plants, animals, fungi, and more that live in Charlotte County preserves.

Prepare for each walk with plenty of water, insect repellent, sunscreen, and clothing that will protect you from insects and plants.

Advance registration is required. The health and safety policies for our programs are subject to change. For information on mask requirements and Covid-19 safety precautions, please contact *gerald@checflorida.org*. For more information or to register, call at **941-475-0769**.

**Wednesday, June 2nd** Join **CHEC** on a guided walk through **Cedar Point Environmental Park.** This 115-acre preserve consists mostly of pine flatwoods as well as some areas of scrub, salt marshes, mangrove swamps, and wetlands. Meet in the parking lot nearest to the restrooms. **All participants are required to register.** Call 941-475-0769 to register or for more information.

**Friday, June 4th** Join CHEC on a guided walk through the scrub and pine flatwoods of 217-acre **Amberjack Environmental Park** in Rotonda. Meet at the end of Gasparilla Pines Blvd. Please call 941-475-0769 to register or for more information. **All participants are required to register.** 

Monday, June 7th Join CHEC on a guided walk through Tippecanoe II Mitigation Preserve in Port Charlotte. This 150-acre preserve is home to several families of the threatened Florida scrub jay. Meet in the parking lot. Please call 941-475-0769 to register or for more information. All participants are required to register.

Wednesday, June 9th Join CHEC on a guided walk through Cedar Point Environmental Park. This 115-acre preserve consists mostly of pine flatwoods as well as some areas of scrub, salt marshes, mangrove swamps, and wetlands. Meet in the parking lot nearest to the restrooms. All participants are required to register. Call 941-475-0769 to register or for more information.

**Friday, June 18th** Join **CHEC** on a guided walk through the 81-acre **Bill Coy/Buck Creek Preserve** in Englewood. The scrubby flatwoods and mangrove swamp border Buck Creek, which flows into Lemon Bay. Meet in the parking lot. Phone 941-475-0769 to register or for information. **All participants are required to register.** 

Monday, June 21st Join CHEC on a guided walk through Charlotte Flatwoods Environmental Park, a 487-acre Charlotte County property of mature pines, dry prairie, marsh wetlands, and freshwater ponds. Its location adjoining state lands make it an important wildlife corridor. Meet at the parking lot on US 41. Please call 941-475-0769 to register or for more information. All participants are required to register.

Go to www.CHECflorida.org for a complete program calendar.

## From "Nature's Best Hope", by Doug Tallamy; Part 2: Excerpts from Chapter 7 Are Alien Plants Bad?

by Lois Cantwell

If you make a diagram of a plant and include all of the species that eat that plant, as well as all of the species that eat each of those plant-eaters, the result would look far more like a very complex web than a linear chain. Some 90% of insect herbivores are host plant specialists that are restricted to eating just one or a very few plant lineages. As we homogenize plant diversity by replacing diverse native plant communities with a small palate of ornamental favorites from other lands, the insects that depend on local native species decline.

As a consequence, studies have shown that 432 species of birds have declined at a perilous rate in North America, reflecting how seriously insect populations are affected by introduced plants. Just a single clutch of young chicks may require thousands of caterpillars to successfully fledge. To illustrate this causal relationship, a study of an equal number of primarily native sites vs. invaded sites showed a 96% less caterpillar biomass in the invaded site. Food for thought...

It's also about the berries. Do berries produced by introduced plants make up for the loss of insects in sustaining birds? It boils down to the nutritional value of berries produced by different species of shrubs. Migrating and overwintering birds depend on fall berries for the fats they need. Studies have shown that berries from introduced Eurasian plants contain very little fat (approximately <1%) while berries from natives are loaded with fat (approximately 50% by weight). If berries produced by the invasive shrubs become the primary food available, hungry birds eat them if the native choices are unavailable. Gives new meaning to the term "empty calories".

### **Beauty in Nature**

by Bill Dunson

We were hoping for a decent amount of rain yesterday but got only one quarter inch. But a bonus came at 6:23 PM when the sun broke through and a marvelous rainbow appeared in the eastern sky to rival the beautiful rhododendrons that are starting to bloom along our Boone, NC, driveway.

Nature rarely disappoints but sometimes the best things are ephemeral!



# Mangrove Native Plant Society COVID-19 Safety Guidelines for Meetings and Field Trips

#### For All Events:

If you are not feeling well, please don't attend this gathering.

Properly worn masks or face coverings are always required for participation.

Participants must maintain appropriate 6' social distancing at any event.

Please do not gather in groups.

Use provided hand sanitizers as needed.

Nearby restrooms are available for hand washing.

Additional Guidance for Indoor or Outdoor Meetings:

Participants must maintain appropriate 6' social distancing inside and outside the meeting room, following the markings on the floor.

Entrance/exit signs and arrows may be posted for directional traffic flow.

Chairs are placed at least six feet apart.

Surfaces of tables and chairs in use are sanitized before and after use.

No food or beverages are served. Attendees may bring a personal beverage.

Attendance may be limited, depending on state/county/city mandates.

Additional Guidance for Outdoor Walks and Activities:

Properly worn masks or face coverings are always required for participation.

Social distancing of 6' is emphasized for sitting, standing, and walking activities.

Surfaces of tables, chairs, and benches in use are sanitized before and after use.

Attendees are encouraged to bring their own chairs, beverages, packaged snacks, and hand sanitizer.

Visit our website