



The Midlands Naturalist

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American Redstart (*Setophaga ruticilla*)

photo: Tom Warren / Audubon Photography Awards

Message from our MMNA Chair

Autumn is here... or is it? With the weather patterns in flux, it is hard to tell. But it looks likely the heat is influencing autumn in a way that we will not see much color in the trees. But no matter... there is still fall color abounding in other ways. Fall-blooming flowers are out, and the changing colors of the grasses might not be as bright as fall foliage, but are beautiful in their subtle, warm colors.

I love wandering in areas with post-equinox goldenrod. Goldenrod has been wrongly accused and eschewed as it has been thought to be the culprit responsible for hay fever, but that is an untruth. Fall allergies are usually triggered by ragweed pollen, mold, and dust mites. Goldenrod is a fascinating little ecosystem, prompting me to get close, peering carefully at the tiny blooms, looking for critters.

Pollinators generally love goldenrod, and I've seen bees, wasps, butterflies, and beetles nursing the nectar from the flowers. Of course, these insects draw in the predators: mantises, crab spiders, and the tiny but fascinating ambush bug. The ambush bug is a true bug, related to the assassin bugs. It is very small, just bigger than a goldenrod flower, and colored for encryption, usually yellow streaked with brown. They look hunched over with a hump in the thorax; they also sport bulging yellow eyes and strong, thick forelegs curled in readiness for snatching prey. And they stay still, even when I get close with my macro lens, just waiting... patiently waiting, like we are, maybe to be sure that autumn is really here.

Hopefully it is, and we can enjoy the departing color, and watch as nature gets ready for the coming winter. Make sure you get out to see these wonders!

Lee

(see Lee's photos on p.12)





<https://congarcelt.org/about>



Mary Crockett

Upcoming Quarterly Meeting – Nov. 2, 2019 10AM – Heathwood Hall School Auditorium

Our MMNA Quarterly Meeting will be held Saturday Nov. 2, 10AM in the Heathwood Hall School auditorium, 3000 South Beltline Blvd. Columbia SC 29201. Heathwood is a lovely campus, and has natural areas to explore either before or after.

The first hour will be about association activities and business. For the second half of the meeting, our speaker will be **Mary Crockett**, the Director of Land Protection at the Congaree Land Trust (CLT). In her role there, Mary manages approximately 172 conservation easements in a 14 county service area. She is involved with the COWASEE and Broad River Basin focus areas, working with a collaborative task force to conserve the Congaree, Wateree, Santee, and Broad Rivers and their riparian lands. She also helped with the formation of the Congaree and Wateree River Blue Trails. Prior to CLT, Mary was the River Conservation Program Coordinator for SCDNR for 13 years.

Mary's talk will focus on SC waterways. She loves our rivers and has an extensive background knowledge of our river systems. She will also tell us how we can assist Congaree Land Trust with monitoring their properties in 2020.

Midlands Master Naturalist Association

Lee Morris	Chair
Ed Siggelko	Vice-Chair
Alice Clark	Recorder
Ellen Blundy	Treasurer
Anne Palyok	Activities Committee Co-Chair
Dee Dee Williams	Activities Committee Co-Chair
Sara Green - SCWF	Advisor
David Groh	Newsletter Editor

We welcome your submissions to this newsletter! Send your: photos, trip/hike reports, citizen science reports, book or website reviews, or anything you think will interest your fellow naturalists to:

mmna.newsletter@gmail.com

Our Website:

<http://www.midlandsmasternaturalist.org>



mark your Calendar

- ☑ Quarterly Meeting:
Nov 2, 2019 at 10 AM
See details above.
- ☑ Steering Committee Meeting:
Oct 19, 2019 at 3 PM
215 Pickens Street, Columbia, SC.
- ☑ Open House: Native Plant Week
Oct 20, 2019 from 1 - 4 PM
USC Belser Arboretum
See details on p.7
- ☑ Adopt-a-Stream Training
Nov 5, 2019, 9 AM - 3 PM
Sesquicentennial SP
See details on p.8
- ☑ Animal Skulls and Bones Training
Nov 23, 2019, 10 AM - 2 PM
Location TBA
See details on p.8

Birding (and more) at Wateree Heritage Preserve

by David Groh

An intrepid group of fifteen Midlands Master Naturalists, led by Jay Keck of the SCWF, met at Wateree Heritage Preserve early on the morning of September 26 for a half day of birding. Jay chose the date to coincide with early fall migration, with the hope of seeing some species only available to us as they pass through here – along with late summer lingerers and early winter arrivers.

Sunrise on Cook's Mountain presented warm and muggy conditions with a persistent fog that obscured the amazing view of the Wateree. This also made for slow birding, but one tame Parula and a Pine Warbler showed themselves, and Jay saw a glimpse of a Redstart that was an indication of things to come.



photo: Dee Dee Williams

The view from Cook's Mtn. that we didn't get until the end.



photo: Ed Siggelko

We drove down the mountain and west on Shed Road to the open pine flatwoods that looked like they were burned last winter - with understory growth just coming back and lots of Goldenrod and Boneset on the roadside. Here we made two stops and took a short hike. The skies cleared and the birds started to stir. We saw and/or heard 4 species of woodpecker (Red-headed, Red-bellied, Downy, Pileated) an Eastern Wood Pewee, Brown-headed Nuthatches, Towhees, Eastern Bluebirds, and more Pine Warblers.

Of course, naturalists being naturalists, we were looking at everything else, too – including a dead gator, lots of butterflies (Question Mark, Gulf Fritillaries, Sulphurs), a Sphinx Moth caterpillar, a lightning-struck tree, and various bones. A Yellow-billed Cuckoo lit in a small roadside oak and stopped our caravan as we all jumped out for a gander. Unusual to see a cuckoo in such open habitat.



Question Mark (*Polygonia interrogationis*)

photo: Ed Siggelko



Gray-cheeked Thrush (*Catharus minimus*)

photo: Andy Reago & Chrissy McClarren

https://commons.wikimedia.org/wiki/File:Gray-cheeked_Thrush_0247077387.jpg

We drove further down to River Road and hiked a short ways. There was a commotion in a thicket with some Brown Thrashers and a White-Eyed Vireo fussing at something on the ground (probably a snake), when Jay spotted a Gray-cheeked Thrush close by – a prize find for fall migration and a first-time view for most of us. Gray-cheeked thrushes breed in boreal forests of northern Canada and winter in tropical forests. They are elusive and hard to see, so definitely a great spot by Jay!

We continued past an open field where Jay often sees Bobolinks in the springtime, then walked past a gate down the long road to the river - through the dense floodplain woods.

Black-throated Blue Warbler (*Setophaga caerulescens*)



photo: Charles J Sharp

[https://commons.wikimedia.org/wiki/File:Black-throated_Blue-warbler_\(Setophaga-caerulescens\)_male.jpg](https://commons.wikimedia.org/wiki/File:Black-throated_Blue-warbler_(Setophaga-caerulescens)_male.jpg)

Amidst all this warbler fun, someone spotted a Cottonmouth - and then a second one nearby in the mud and leaf litter. One was moving away and the other was ready for action! A good reminder for us to stay on the beaten path.



photo: Ed Siggelko

There was a lot of warbler activity here, and we were all able to get wonderful looks at Redstarts, Black-throated Blue Warblers, and Black-and-white Warblers.



photo: Ed Siggelko

Thread-waisted Wasp (*Ammophila procera*)



photo: Ed Siggelko

An open sunny field gave us a final treat with a wildflower show and a flurry of butterfly, bee, and wasp action on Ironweed, Smartweed, Lespedeza, Mistflower and some other fall bloomers.



photo: Ed Siggelko

Many thanks to Dee Dee Williams for organizing this expedition and to Jay Keck for his knowledge, enthusiasm, and patience. It was a great day out!

Falling out for Water: a Migration Day Observance

by Dale Hutto

Bird events often appear when you least expect them. Any number of variables influence what you see. The first week of October is within the time frame you would expect migrants to visit. This year, we also were experiencing record high daytime temperatures, and significant drought conditions. So, three key variables were in play. And a fourth variable was soon added - a northwest cold front was forecasted to arrive.



photo: Dale Hutto

While I had not deliberately set out to take advantage of these variables, I soon became aware about noon on the 4th, of a number of birds drinking from and bathing in a water fixture that I had turned on earlier that day.

The fixture is an artificial waterfall constructed of slate rocks, approximately three feet high and about six feet long with a one to three inches deep shallow receiving basin at the bottom of the fall. The water runs from the receiving basin to a larger frog pond, and from there it is pumped back to the top of the slate rocks, and the process starts all over.

It is common for local birds to use the feature, but this time the birds were different. Approximately three to five birds would flock in for about five minutes, and then leave. Later they would return - doing this many times over the next three hours. The birds were a mixed flock of thrushes: Gray-Cheeked and Swainson's. On a couple occasions, a female Scarlet Tanager would come in also. The last time a larger bird dropped down with them. It was brown on the back, and the belly and chest were covered with distinct spots - a Wood Thrush.

Swainson's Thrush (*Catharus ustulatus*)



photo: VJAnderson

https://commons.wikimedia.org/wiki/File:Swainson%27s_Thrush_0777sv.jpg

Wood Thrush (*Hylocichla mustelina*)



photo: Andy Reago & Chrissy McClarren

[https://commons.wikimedia.org/wiki/File:Wood_Thrush_\(wo33\)_3251332161.jpg](https://commons.wikimedia.org/wiki/File:Wood_Thrush_(wo33)_3251332161.jpg)

Imagine in such a small space, three species of thrush at the same time! What a treat to see such usually secretive and elusive birds dropping their modesty and "showing out." I figured that they had flown in overnight in a mixed flock to feed on insects, wax myrtle and black gum drupes which were nearby. They couldn't resist the temptation when moving water was presented. Never underestimate the importance of water in attracting birds!

Editor note: For more information on water features for birds:

http://www.birds.cornell.edu/AllAboutBirds/notes/BirdNote09_ProvideWater.pdf

My Romance with Spiders

by Bobbi Adams

Like everyone else who cares about their greatest asset, (a house), I periodically pay an exterminator to treat for *Periplaneta americana*, (the cockroach) and termites. I treat the yard myself at least three times a year for fire ants. My favorite members of Phylum Arthropoda, (animals with external skeletons) are spiders. And my favorite spider is the Writing Spider, *Argiope aurantia*. The female weaves a web with a zigzag line through it. Some of her lines are not sticky so she travels safely along those silken threads without getting stuck herself. When she mates, the male, much smaller, is sometimes eaten after mating.



All spiders are venomous because this is manner in which they paralyze their prey after trapping them in webs, or catching them on the ground like wolf spiders, which look like much smaller versions of tarantulas. I am always intrigued by wolf spiders running along the ground because females will carry their young when they hatch on their backs.

Writing spiders, though, are my favorites. This time of year is when I see them, most notably by running through their anchoring lines at my front door going for the newspaper or watching them catching larger insects in writing webs over my pool. Spider silk has the tensile strength of steel. Even dragonflies, much larger arthropods, dipping ovipositors in my pool are no match for spider silk. and get caught. I enjoyed all of this recently while on the phone, safely inside, watching dragonflies, hummingbirds, bees and other garden critters swarming around my pool. We are still in incipient drought so there was lots of activity.

Hummingbirds often use spider silk to hold in, I suspect, the mosses their tiny nests are lined with. While doing field work in the Black Hills of South Dakota, I devised a method to collect various kinds of flat webs so I could go to the lab and examine the silk under the microscope. Some spiders can also throw their silk into the wind and carry themselves many miles. This is called ballooning.

I've also forgotten to mention jumping spiders, great leapers! Arachnids are truly fascinating to study. I find them on my shoulders when I walk under the American beech in the front yard. Their huge eyes follow my every mood.

SCWF Celebrates City of Columbia Community Wildlife Habitat Announcement



NWF President and CEO, Collin O' Mara, SCWF Executive Director, Sara Green, and Columbia Mayor, Stephen Benjamin at the October 11, 2019 ceremony.

In a ceremony at the Robert Mills House and Gardens, the South Carolina Wildlife Federation (SCWF) celebrated the City of Columbia's new status as a certified Community Wildlife Habitat.

SCWF Executive Director Sara Green was joined by National Wildlife Federation president and CEO, Collin O'Mara, for the ceremony's opening remarks. In addition, Mayor Stephen Benjamin addressed the crowd and released an official proclamation naming October 11, 2019 as "Columbia's Community Wildlife Habitat Day." Keith Mearns, Director of Grounds for Historic Columbia, also spoke and gave a tour of the native plants used on site at the Robert Mills House and Gardens.

The City of Columbia joins more than 200 communities in the United States to be certified as a Community Wildlife Habitat and is now the largest community in South Carolina to receive the certification. The National Wildlife Federation's Community Wildlife Habitat program was created to encourage communities to become more wildlife-friendly through the use of native plants and sustainable land management.

To reach eligibility as a Community Wildlife Habitat, the SCWF team helped certify more than 700 local properties as wildlife habitats, led initiatives to remove invasive species in the area, and engaged local schools, garden clubs and churches in educational events on the importance of habitat restoration. South Carolina has the second highest number of Certified Wildlife Habitats per capita compared to every state in the United States.

Read the full article here: <https://www.scwf.org/events>

and another article here: <https://www.coladaily.com>



Volunteer Opportunity

Wood Magic Forest Fair:

Harbison State Forest (Columbia) - Oct 28 - Nov 1, 2019

Hobcaw Barony (Georgetown) - Nov 19 - 22, 2019

VOLUNTEERING

Beth Foley is scheduling volunteers for this fall's ongoing Wood Magic Forest Fair (WMFF) events. To conduct these programs, she needs approximately 28 volunteers each day to serve as guides, instructors, and helpers. Each volunteer is given a t-shirt, lunch, and the satisfaction that they have helped provide the youth of our state an important pro-forestry experience. As a registered forester, you can also receive up to 2 hours of Category 3 CFE credits.

To sign up, first visit the WMFF volunteer page at <http://www.state.sc.us/forest/woodmagic.htm> and look under "Work Schedule" to see what days and positions are available (this is updated once weekly). You can also find lesson plans, driving directions, and other information at this site. Then contact Beth <mailto:bfoley@scfc.gov> to let her know for which days and positions you would like to volunteer. (Please note the above website is not where you sign up, but where you see what volunteer slots are still needing to be filled.)

To learn more about WMFF, please visit this link <http://www.state.sc.us/forest/18wm.pdf> to view last year's annual report.



TRAINING & VOLUNTEERING

USC Belser Arboretum Open House: Native Plant Week

Sunday, October 20, 1-4 PM

4080 Bloomwood Rd (close to Piggly Wiggly on Devine)

2 PM Presentation by Dr. Arlene Marturano

All are invited to the October Open House at the W. Gordon Belser Arboretum, celebrating SC Native Plant Week. After exploring the trails and looking for migratory warblers, join Dr. Arlene Marturano at 2 PM for "Bringing Natives Home," a presentation on native plant gardening and how it benefits wildlife like monarch butterflies. She will demonstrate tagging and releasing migrating monarchs. Also at 2 PM, Katie Dixon Stewart will lead a children's activity making seed balls for butterflies.

Belser Arboretum is a Columbia "hidden treasure" owned by USC and only open to the public on Wednesday mornings, and the 3rd Sunday of the month. It is 10 acres of surprises in the middle of an urban neighborhood. There are also **volunteer hour opportunities** here!

https://sc.edu/study/colleges_schools/artsandsciences/biological_sciences/research/resources_facilities/arboretum/index.php

Note there are two entrance gates, one on Bloomwood and one on Wilmot Ave. Parking is on street.



Advanced Training Opportunity

Identifying Common Animal Skulls and Bones

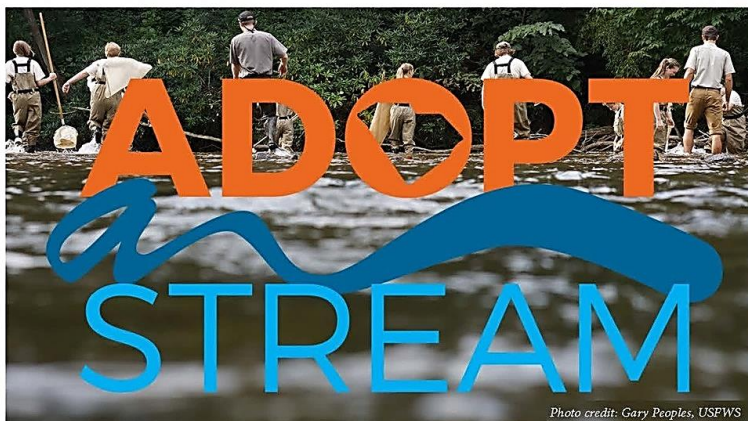
Saturday, Nov 23, 2019, 10 AM - 2 PM

Cost: \$50

Location TBA (watch for email announcement)

We have all wondered about bones and skulls found while hiking. Now we have an upcoming class for that!

The class will be taught by **Dr. Jeff Camper**, a Biology Professor at Francis Marion University, where he teaches classes on Comparative Vertebrate Anatomy, Herpetology, Evolutionary Biology and Genetics. Dr. Camper recently released a comprehensive field guide – The Reptiles of South Carolina, the first book dedicated solely to reptiles of the Palmetto State.



Chemical & Bacterial Monitoring Training

November 5th, 2019

9:00 AM - 3:00 PM

Sesquicentennial State Park

Attend this free training and become a certified Adopt-a-Stream volunteer! Participants will learn how to collect water samples and perform chemical and bacterial assessments to measure water quality in a stream over time. Participants will be given instruction on:

- selecting an appropriate site
- properly using and storing equipment
- entering data on the AAS database
- performing chemical and bacterial analyses

This training workshop includes classroom and field portions. Participants must pass a test in order to be certified to use the Adopt-a-Stream database.

To learn more and register, please visit
<https://scaasnov5.eventbrite.com>

To learn more about SC Adopt-a-Stream visit scadoptastream.org

Clemson University Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, gender, religion, national origin, disability, political beliefs, sexual orientation, gender identity, marital or family status and is an equal opportunity employer.



Volunteer and Advanced Training Hours

Master Naturalist volunteer service hours are critically important to the SC Master Naturalist program and its many affiliated organizations. The educational, environmental, and other volunteer services you provide help demonstrate the value of the program to the state of South Carolina.

Please keep us aware of the benefits that you provide by reporting your volunteer hours via the [Online Volunteer Hour Reporting System](#). At the same time, report your advanced training hours to keep your certification active and allow you to qualify for the amethyst that goes in your nametag for yearly service.

Go here for more details: <https://www.clemson.edu/extension/mn/volunteering.html>

And here for a tutorial on how to use the database (it's easy!):

<http://www.midlandsmasternaturalist.org/about-mmn-association/volunteer-links>

SCWF Nature Library

From Sara Green, SCWF Executive Director:

We've created a "Nature Library" at our office - nature books that we are giving away to a good home! Also, if you have nature books you'd like to trade/give away, you can bring yours in.

Donated books go to top shelf, so check out the top shelf for newer additions when you come in. Stop by and browse the nature library!

215 Pickens Street, Columbia.

10am-4pm, M-F.

Office phone is (803) 256-0670 if you want to call first.



Something you might see often (this time of year)...

Golden Silk Orbweavers (*Nephila clavipes*) seem to be everywhere you look in the Midlands these days. A tropical/subtropical species, they used to be found just along the coast, where folks often call them “Banana Spiders.” It is thought that they moved up from the tropics on shipping containers or nursery stock, and in the last decade or so, they have moved inland. Here are some good looks and cool facts about these impressive spiders.



photo: David Groh

Unlike our other orbweavers, a *Nephila* leaves her golden silk orb web up all the time - repairing it only as needed. She will molt many times as she grows. Several tiny males can be in the web with her, jockeying for position. Here, a male waits until right after she molts to begin his approach.



photo: Ed Siggelko

After a sequence of careful movements and vibrations to let her know he isn't prey, a male is in position to mate. No direct mating though; the male has transferred semen into little suction bulbs on the end of his palps - which he then uses to inseminate her.



photo: David Groh

Nephilids produce 2 or 3 round or oval egg sacs per year in the late summer or fall. Normally placed under a leaf, on a limb, or the side of any structure near the web, each contains several hundred eggs, which will hatch into spiderlings that overwinter in the sac.



photo: David Groh

Nephilids use a direct bite technique on their prey - instead of wrapping it in silk to immobilize it like other orbweavers. It is thought this is a less-evolved method and limits the size of prey they can handle - but as you see here, they do pretty well!

For more info: http://entnemdept.ufl.edu/creatures/misc/golden_silk_spider.htm

And things you won't see unless you look very closely...

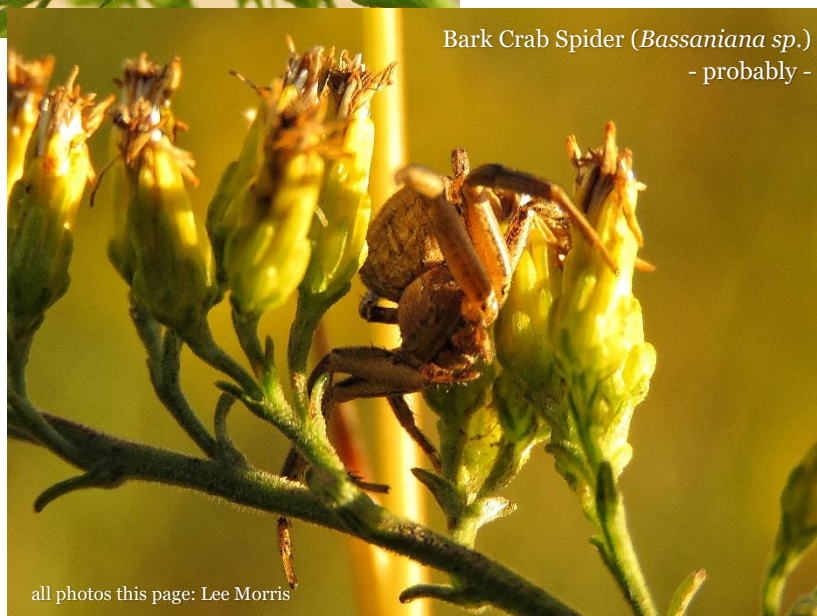
like **Lee Morris** did with her study of Goldenrod (see Lee's description on p. 1)



Ambush Bug (*Phymata* sp.)



White-banded Crab Spider (*Misumenoides formosipes*)



Bark Crab Spider (*Bassaniana* sp.)
- probably -

all photos this page: Lee Morris

And something you don't see every day...

FEATURED
SPECIES



Karen Palmer sent this photo she took next to her pond in Prosperity. Here's what she had to say:

"The pond is almost three acres. We have stocked it with bass, bream, and bait. It's spring-fed and has vegetation. I went outside and the snake was there, so I ran inside to get my phone. I took the picture and stayed there until it was able to swallow the fish and scoot into the pond. I never realized how vulnerable snakes are when they are eating. I've not seen it since."

According to one of our MMNA herp enthusiasts, Dave Schuetrum, this is a **Northern Water Snake (*Nerodia sipedon*)**. Here's a little more info courtesy of the Savannah River Ecology Laboratory:

Northern Water Snakes range in size from 24 to 55 in. They are fairly dark-colored snakes and may be brown, tan or grayish. Their back and sides have a series of square blotches that alternate and may merge to form bands. Adult females tend to be larger than adult males. They primarily feed on amphibians and fish and are often seen basking on banks of rivers or ponds or on branches overhanging the water.

In our region, these snakes are restricted to the Piedmont and mountains. They inhabit a variety of aquatic habitats including lakes, ponds, marshes, rivers, and streams. This species is often confused with the venomous Cottonmouth (water moccasin), but Cottonmouths have bands instead of blotches and are generally restricted to the Coastal Plain.

<https://srelherp.uga.edu/snakes/nersip.htm>