The Vine

The Quarterly Newsletter of the Southwestern Piedmont Chapter of Virginia Master Naturalists

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President's Message

I hope you are all getting outside to enjoy this beautiful weather! Thanks to all of you who have helped with our projects so far this year. We had a good turnout for the Paw Path mulching party and several of you were able to help the museum with Earth Day and the Archaeology help day.

We have a number of events planned in the next couple of months for you to get out, hang out and enjoy the outdoors, including a river trip and the annual Picnic/mixer with the new Basic Training class. Please encourage your friends and neighbors to become Master Naturalists. Be sure to check the chapter calendar on the Volunteer Management System for details about all our chapter events.

I am really looking forward to the 2016 state conference August 26th – 28th. I have not missed one yet. This year's conference is being planned by our neighboring chapter, Blue Ridge Foothills and Lakes. I hope many of you can take advantage of this opportunity, since the event is so close by. The classes and field trips are always interesting. There is opportunity to meet naturalists and sponsors from across the state and to see what they are up to. I enjoy checking out the Photo contest. I hope you are all taking pictures!

For more information about the conference, check out this link: http://www.virginiamasternaturalist.org/home/sneak-peek-at-the-2016-vmn-conference

Kathy Fell
President

The Bothersome Bee?

The other day, I was pulling weeds along a rock wall and I was stung two times on my hand by an invisible beastie. I quickly retreated, called it a day and went inside to apply the baking soda remedy my mother always used whenever I was stung by a honey bee or a yellow jacket. The next day, my hand was still sore and swollen, so I went outside to investigate the scene of the attack. There, nestled under a large rock at the base of the wall, was a paper wasp nest. Paper wasps are usually non-aggressive. I must have stuck my hand right into the nest. I was able to get my camera within a foot of the nest without irritating the wasps and went inside to do some research.

Paper wasp nest under rock. Photo by Kathy Fell.

I determined my attacker was a Northern Paper Wasp, *Polistes fuscatus*. Only the females sting, and they can sting multiple times. I left the nest alone. I have many paper wasp nests around the house, under the eaves and under the deck. This one is, at least, in a natural setting where it is supposed to be. Paper wasps are one of our local pollinators. They feed mainly on nectar and capture insects and caterpillars to feed to their developing larvae. This nest is very close to my still-developing wildflower meadow, so they are in a great location for collecting both nectar and insects.

I investigated home remedies. My mother was right. Honey bees and yellow jackets have an acidic venom. A paste made from baking soda and water will help neutralize the venom. However, wasps and hornets have alkaline venom. A better home remedy for wasp stings is to apply some vinegar! It did not help that I was clueless who stung me. Next time, I shall need to be braver and look around for the nest the same day.

Submitted by Kathy Fell
Virginia Master Naturalist

Electroshock Therapy

The Virginia Department of Game and Inland Fisheries (VDGIF) Complementary Workforce Program offers rewarding and often thrilling volunteer opportunities. For example;

On May 19, 2016 a few Smith River Trout Unlimited members, including yours truly Southwestern Piedmont Chapter Master Naturalist, helped VDGIF fisheries biologists George Palmer and Tyler Young sample the Smith River fish population. Our thrilling adventure started a little below the Philpott Dam and concluded at the state route 666 bridge in Bassett. This was also the maiden voyage of the VDGIF Region 2 newly out fitted sampling raft. Sampling was done by electrofishing—the practice of catching fish by stunning them with electric current.

The recent fire at the dam powerhouse meant releasing water at the 500cfs (cubic feet per second) level 24/7 which is too high for wading and almost too low for serious floating. We figured it would be high enough to allow passage over the rocks in the upper river which make floating nearly impossible

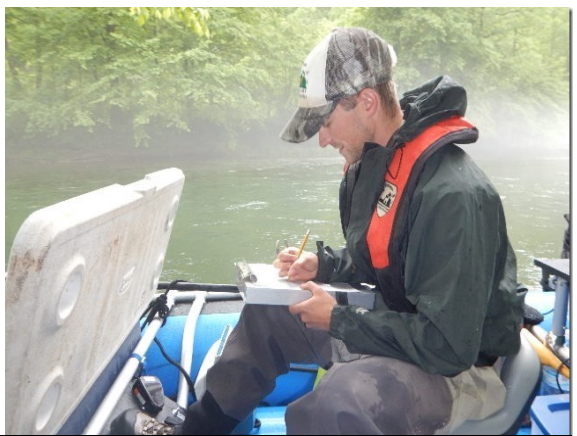
when the turbines are not operating. The electronic probes cut a fairly narrow swath and the raft was moving downstream at a fast pace so the "net dipper" probably missed a number of stunned fish. George our net dipper said he saw a lot of fish running ahead and off to the sides of the raft before the electric current had a chance to temporarily stun them. Nevertheless, we collected a respectable random sample of what the river had to offer.

Vital statistics are recorded on each fish collected. The fish are then safely returned to the water shaking their fins and wondering, "what the blazes just happened". All the fish looked healthy, but the fish in the upper end of the Smith don't exhibit the full belly, well fed look that we see in the lower river where forage is more prevalent.

Philpott's powerhouse fire damage and subsequent repairs will necessitate 24/7 abnormal flows for several months. This will preclude the annual VDGIF wade/barge sampling of the river at its designated sampling sites. Now that VDGIF Region 2 has a sampling raft they plan to put it to good use by checking various sections of the river on a monthly basis. As of May 2016, the water temperatures were within the range to support trout, however summer temperatures are questionable. Authorities aren't sure how long Philpott can draw water discharges at 500cfs 24/7 or what it will do to the trout fishery if lake levels require a reduction to something less than 500cfs.
If you're interested in volunteer opportunities like the one described above, you can check out the VDGIF website at http://www.dgif.virginia.gov/volunteer/#cwf or contact Bryan Pollard, the VDGIF Complementary Work Force Program Region 2 Coordinator at office phone number (434) 525-7522 or email bryan.pollard@dgif.virginia.gov.

Submitted by Eric Tichay
Virginia Master Naturalist

Random sample from the river. Photo by Eric Tichay.



L to R: Stunning fish with electrical currents. Information is recorded for each fish captured. Photos by Eric Tichay.

The Poison Ivy Impasse

I recently returned from a trip, in the pouring rain, to find a large tree had fallen across my driveway. Lucky for me, I was able to drive around it. When I went to investigate with my trusty saw, I discovered most of the tree is engulfed with poison ivy vine, over an inch thick in places, with "branches" coming off the vine that stick out a good 3 feet. Yiikes! How will I ever get to the trunk to clear the driveway?

All of the poison ivy plant (*Toxicodendron radicans)* contains urushiol. This includes the leaves, the berries and the stems. Urushiol is what causes that irritating skin rash, once you get any on your skin. Recently, I stepped in some poison ivy and transferred the oils to my hands when I untied my shoes. A friend of mine hugged a dog that had been tromping in poison ivy… and the oil transferred from the dog. The worst thing you can do is burn it, and send the oils into the air. Urushiol can still cause skin irritation years after it has been transferred from a plant. I got a good rash from moving year-old mulch that must have contained ground poison ivy. There are special soaps that can absorb the urushiol, if used with cold water, quickly after contact. Hot water only helps the oils run and cause more problems.

Berries, stem, and leaves of the poison ivy. Photo by Kathy Fell.

Green caterpillar munching on poison ivy leaf. Photo by Kathy Fell.

Oddly, deer will eat the leaves with no ill effect. I noticed all the leaves within reach of a deer had been munched off, leaving only a cluster of immature berries at the end of a stick. My neighbor confirmed that deer had been having a party over in the down tree. Many species of birds eat the berries, including Pileated Woodpecker, Wild Turkey, American Robin, Eastern Bluebird, Carolina Chickadee and Carolina Wren.

I decided the best approach is to carefully remove the leaves, vine, and berries before attempting to cut down the rest of the tree. I attacked with hand clippers, snipping off 8 inch section and stashing them in a garbage bag. Hopefully, I did not transfer any urushiol to my skin. In the process, I noticed a lot of little green caterpillars, munching away on the urushiol laden leaves. I did a little research, but was not able to definitively identify the species. Perhaps it is *Nadata gibbosa*, the White-dotted Prominent Moth? Maybe a chapter member can identify what species of moth likes to eat poison ivy leaves!

Submitted by Kathy Fell
Virginia Master Naturalist

Digging for Dinosaurs & Fossil-Collecting with Ants

This summer, the Virginia Museum of Natural History (VMNH) joined with Lynchburg College (LC) to excavate dinosaur fossils in northern Wyoming. The VMNH crew included Dr. Alex Hastings (Asst. Curator of Paleontology), Ray Vodden (Research Technician), and Dr. Kal Ivanov (Asst. Curator of Recent Invertebrates). The fossil site has been revisited for several years now, led by Dr. Brooke Haiar (professor at LC), uncovering more and more bones of a sauropod (long-necked dinosaur). These dinosaur bones are from the Jurassic Period, roughly 140 million years old, during a time when mammals were mostly small rat-sized creatures. Excavations at the site have been slowly uncovering a large part of the skeleton of this massive animal. So far, large sections of the back legs and tail have been uncovered. The dig this summer led to the discovery of important bones of the feet and hip. Some bones are beautifully preserved in three-dimensions, meaning preparation should go fairly quickly back in the VMNH fossil laboratory. However, some of the bones were heavily weathered, and excavation had to be very careful. In order to safely extract the bones, the team needed to use large amounts of sophisticated glues to keep the fossil as intact as possible. Several of these had to be excavated out and jacketed in plaster so they could be safely transported back to Virginia.

View from the pit, showing the VMNH & Lynchburg College team. Sometimes you have to dig in awkward positions, like VMNH fossil preparator Ray Vodden (front). Photo by Dr. Brooke Haiar (Lynchburg College).

Earlier study by Dr. Haiar and LC student Kendall Porter found that the tail vertebrae collected in 2014 were most similar to the sauropod *Apatosaurus*. This dinosaur has been known from the area for over 100 years, and was especially large, getting up to 75 feet in length. However, the bones found at the site are actually quite a bit smaller, despite being from an adult. This means the new fossils recovered may actually represent a new species of dinosaur. In order to know this for sure, the bones will all need to be prepared, a process that will take many months. In total this summer, the team brought back 17 plaster jackets of dinosaur bone as well as many smaller wrapped pieces, nearly all from one individual sauropod dinosaur. The team is hopeful that they have collected enough to be sure of the identification, once the laboratory work is finished. In any case, the VMNH and LC crews are already excited to go back to Wyoming and see what else they can find.

The fieldwork out west wasn't only about dinosaurs. In Wyoming there is a species of ant that has a curious habit. The Western Harvester Ant will pick up small objects and incorporate them into the mound that sits atop their underground colony. In places where small fossils are exposed at the surface, these ants will pick them up too and use them to cover their mound. For paleontologists, it helps to know how far these ants will go to bring back fossils, so they can estimate where exactly the fossils came from. Moreover, ant biologists do not know exactly why the ants have this behavior. Hypotheses have mostly been concerned with heat regulation. Dr. Ivanov and Dr. Hastings selected several ant hills to gather temperature data to test these hypotheses and also documented their foraging behavior to see how far out they

Dr. Kal Ivanov photographing Harvester Ants as they forage for food and building materials for their mound. Photo by Dr. Alex Hastings (VMNH).

were going for their items. They also bagged up the sediment the ants had gathered so they can begin looking for trends in size, shape, weight, and color that may be biasing the ants sampling of the fossil ecosystem.

If you're in the Martinsville area and would like to help with the dinosaur lab work, please contact our fossil preparator, Ray Vodden at raymond.vodden@vmnh.virginia.gov.

Special thanks to the VMNH, Lynchburg College, Memorial Hospital of Martinsville & Henry County and Bassett Furniture for funding to make the dig possible!

Submitted by Dr. Alexander Hastings
Assistant Curator of Paleontology at VMNH

Hot Herps

Recently the VA Herpetological Society's annual meeting was held in Natural Bridge, VA. In attendance were 60 some individuals as well as Southwestern Piedmont VA Master Naturalists' Sydney Brown and Katie Hastings.

Even though Natural Bridge has been a tourist attraction for many decades, there has never been a herpetological survey done of the area. Due to the enormous size of the land, those individuals in attendance were split into several groups and given zones to investigate. Forewarned, groups were told that there was no telling what would be found. Armed with a google earth photo of the area and snake hooks, the Zone 7 group headed towards the Natural Bridge Zoo area.

By the time Zone 7 was first set foot on, it was 9:30 am and already over 90 degrees outside. The group decided that the large meadow should be surveyed first with many believing there wasn't going to be much to find. Unfortunately, they were proven correct. By the time the sun was high overhead we were trekking through the forest. It wasn't until just before noon that Katie discovered a red-spotted newt underneath a piece of bark. Red-spotted newts are particularly interesting because they are terrestrial as a juvenile and vibrant,

Eastern box turtle. Photo by Sydney Brown

but also very poisonous to those looking for a tasty snack. Though, they

Red-spotted newt peeking out. Photo by Sydney Brown

aren't that rare to find.

There was not a lot of water in the area, so no salamanders were found but we did record 1 eastern box turtle, 2 red-spotted newts, and heard a grey tree frog. After sweating it out, the Zone 7 team left to meet up with the others for one final report.

In total, 140 individual specimens were found with one possible county record of a Wehrle's salamander. The VA herp society is still waiting on tests to confirm. Overall,\ it was a sweaty day with not much to show for it, but was overall a great experience. We helped the state (for the future when they purchase the land) figure out what species are located there and were encouraged to discuss with the public the importance of these surveys as we walked around. For more information about the species found, check out this link: http://www.virginiaherpetologicalsociety.com/news/bridge/index.html

Submitted by Sydney Brown
VA Master Naturalist

Upcoming Events

July 2016:

July 29th – Photo contest entries due. Maximum of 4 photos per person.

August 2016:

August 1st – 5th – Photo contest voting on volunteer management system

August 26th – 28th – VMN State Conference at Skelton 4-H Educational Center

August 27th - Shenandoah advanced nature photography class

September 2016:

September 10th – Adult curator camp at VMNH

September 12th – Vine submission deadline

October 2016:

October 8th – Vine summer release

Please don't forget to check out the calendar on the volunteer management system for the most up to date information:

https://virginiamn.volunteersystem.org/UniversalLogin.cfm

VMN Photo Contest 2016

Please don't forget to submit for the VMN photo contest at the annual conference. All entries must be submitted by midnight July 29th. All of the photos will be posted on the Volunteer Management System and then voted upon the week of August 1st – the 5th. Maximum of 4 photos per member. The following information needs to be included: Date photo was taken, species, location, and category. There are 3 categories this year; flora & fauna of VA, VA landscapes and habitats, and VA master naturalists in action. Please submit all photos to swpmnn@gmail.com.

Here is a little preview of what has already been submitted!

Five-lined skink guarding eggs. Photo by Kathy Fell

Tree swallow in Danville. Photo by Mary Foster

Wheel bug. Photo by Jessica Driver

SWPMN Store Offerings

If you are not aware, the Southwestern Piedmont Master Naturalist Chapter has
their very own merchandise! Available for purchase is the following:

- Embroidered Patches: $2.00
- Color Oval Decals: $1.00 or 3 for $2.00
- Virginia Southwestern Piedmont Pocket Naturalist Guide (Laminate Folding): $4.00
- Southwestern Piedmont Virginia Master Naturalist Water Bottle (not pictured): $10.00

Please submit all inquiries and orders to: ChristineBoran@gmail.com

SUBMISSIONS:

Want to submit to The Vine? Please send all inquiries to SWPMNN@gmail.com. Any submissions will be answered promptly. Thank you for your contributions!

Virginia Master Naturalist Sponsoring Agencies:

Virginia Cooperative Extension
Virginia Tech • Virginia State University

DCR
Virginia Department of Conservation & Recreation

DEQ
Virginia Department of Environmental Quality

Virginia Department of Forestry

Virginia Department of Game & Inland Fisheries

Virginia Museum of Natural History
In Association with the Smithsonian Institution

Center for Coastal Resources Management
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Virginia Master Naturalist

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http://www.vmnh.net/virginia-master-naturalist-program

https://www.facebook.com/SouthwesternPiedmontMasterNaturalists/?fref=ts