



# The Clifton Institute

## Summer 2020

### Adapting to COVID-19

This spring and early summer we switched from offering in-person programs to creating online educational materials, including YouTube videos, Facebook live sessions, and talks for both kids and grownups on Zoom. In total we created **49 videos that have been viewed over 8,000 times**. In mid-June we started offering in-person programs again and we plan to continue to do so through the fall. All of our in-person programs now take place outside, socially distanced, with limited registrations, and with masks. During the quarantine, we wanted to give people the opportunity to get outside. To do that, **we increased the frequency of our open-access days for Friends of the Clifton Institute to every Saturday through October 10th**. You can become a Friend with a minimum annual donation of \$40 by going to [cliftoninstitute.org/donate](http://cliftoninstitute.org/donate). To accommodate the increased interest in hiking on our property, **we constructed several new trails** and, in the process, found some interesting spots we didn't even know about, like this Tulip Poplar that we measured to be 14 feet in circumference. **This fall we are offering biweekly Nature School programs** for students who are virtual schooling and / or homeschooling, we are offering more family-friendly programs than usual, and we are continuing to provide programs on YouTube and via Zoom. We hope we'll see you in person or virtually sometime soon!



Co-Directors Bert and Eleanor Harris measure a tulip poplar that's 14 feet around!

### Native Seed Propagation

Last fall, Executive Director Bert Harris collected seeds of 38 species of native grassland plants from around the area. With the help of volunteers and staff from the Piedmont Environmental Council, we sowed the seeds and grew 1,500 seedlings. This spring we sold 600 seedlings to the public and planted most of the rest (plus some seedlings from Earth Sangha and Hill House Nursery) in two new gardens that are comprised exclusively of local grassland plants. These gardens will serve as backup populations for declining species and will help us teach the public about Piedmont prairie conservation. Thank you to the Warrenton Garden Club and Earth Sangha for supporting this work! You can buy our extra seedlings, some of which are rarely available commercially, at our plant sale on September 26.



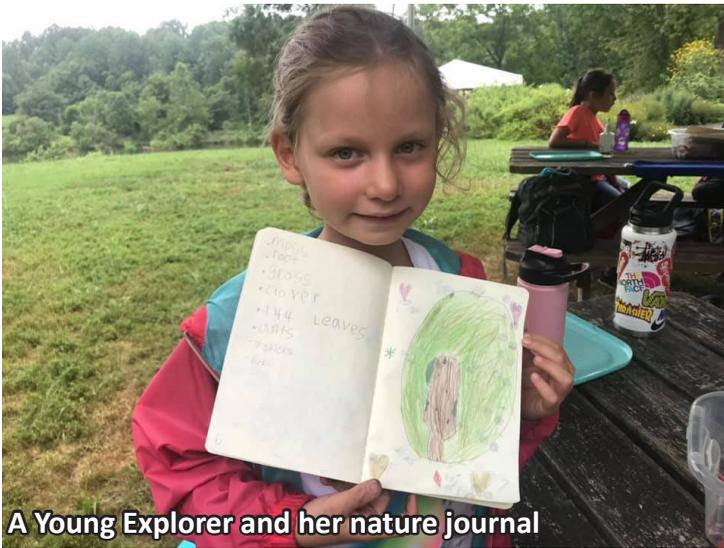
Volunteers plant locally sourced native plants in our new demonstration meadow



# Four Fun Weeks of Summer Camp



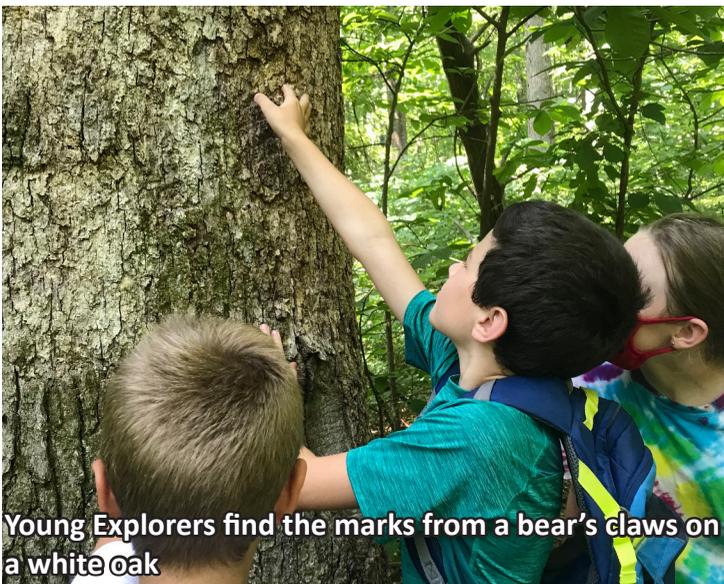
The four sessions of summer camp we run are our favorite weeks of the year and we were so glad we were able to offer them this summer. We made some changes because of COVID-19 (we reduced registrations, kept the campers in small groups that didn't intermingle, stayed outside, wore masks, and sanitized regularly), **but the most important thing didn't change: the campers had a great time outside in nature and they learned about ecology and conservation from our knowledgeable staff and counselors. This year, 38 campers attended two sessions of Young Explorers camp for 7-12-year-olds.** Every morning of camp, we went on hikes and explored our streams, fields, and forests, where we got to see crayfish, box turtles, rat snakes, frogs, birds, and lots of bugs. During Learning Lab, the campers dove into topics like how to identify plant families, how beavers build their dams, and what we can learn from an animal's skull. After lunch, the campers spent 30 minutes drawing and writing about plants and animals in their nature journals. During Craft Time, we wove tapestries with branches, built boats with natural materials, had jumping contests between origami frogs, and transformed ourselves into moths with construction paper costumes. During Sharing Time at the end of each day, we heard that **the campers' favorite parts of the day were seeing wildlife, having quiet time on the trail, making new friends, and learning things they never knew before.**



A Young Explorer and her nature journal



Young Explorers in one of our streams



Young Explorers find the marks from a bear's claws on a white oak



A Young Explorer makes friends with a Silver-spotted Skipper

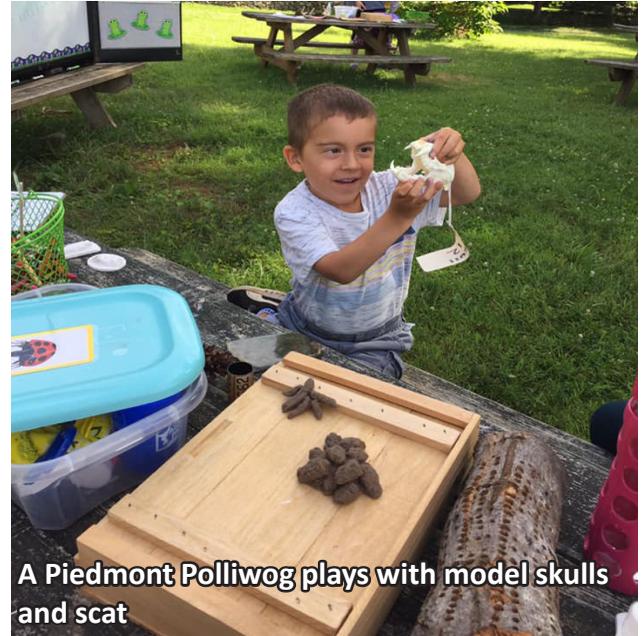
## WE'RE HIRING!

We are looking for a full-time Land Management Outreach Associate and a part-time Communications Assistant. Learn more at [cliftoninstitute.org/employment](https://cliftoninstitute.org/employment).

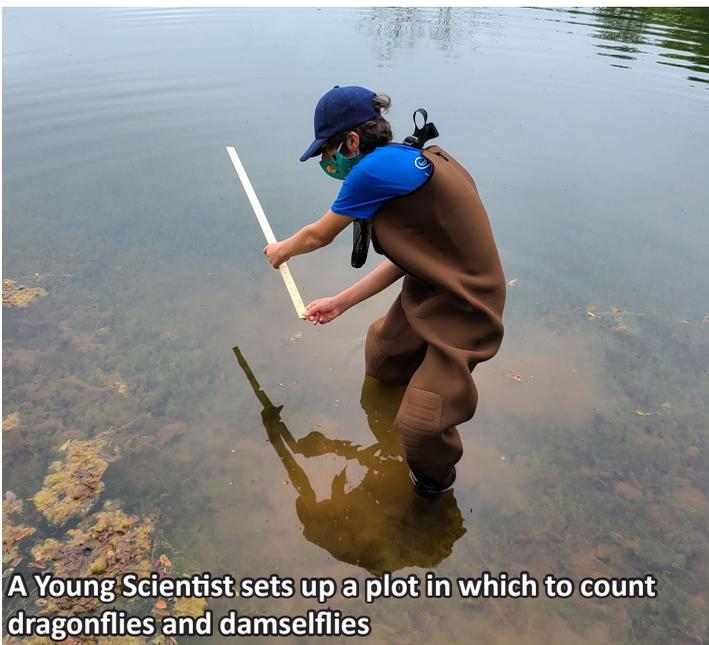
Five 3-5-year-olds and their families attended our second **Piedmont Polliwogs half-day camp**. The campers read stories, practiced animal yoga, sang Way Down Yonder in the Pawpaw Patch, and walked on a new trail each day. The children discovered spittlebugs, box turtles, and strange bryozoans. They also learned about biofacts such as track casts, replica pelts, and model animal scat, which led one camper to exclaim, "I can't wait to see what my poop will look like tomorrow!". Seven middle and high school students participated in our second **Young Scientists Research Experience**. Each Young Scientist carried out an entire independent research project over the course of just six days. On Monday, they visited the different habitats on our property and they each came up with a question they were interested in. They spent the next three days collecting data to answer their questions under the supervision of our staff scientists. On Friday they analyzed their data and put together presentations. On Saturday, they presented their findings to their families. One student learned that bumblebees prefer scented over unscented flowers, but sweat bees prefer unscented flowers. Another found out that our forests hosted more species of birds than grasslands or shrublands. We had so much fun during all of our summer camps and we can't wait for next year!



Ms. Alison and volunteer educator Ms. Elna with the Piedmont Polliwogs



A Piedmont Polliwog plays with model skulls and scat



A Young Scientist sets up a plot in which to count dragonflies and damselflies



A Young Scientist identifies *Rubus* species in our grassland

This summer we reached 1,700 species on our iNaturalist project! You can find them at [cliftoninstitute.org/inaturalist](https://cliftoninstitute.org/inaturalist). Can you guess the 5 most commonly photographed species? Turn upside down for the answers.

1. Green Frog 2. Spotted Wintergreen 3. Common Box Turtle 4. Eastern Tiger Swallowtail 5. Widow Skimmer

## Challenges with Releasing the Seed Bank

Along with Virginia Working Landscapes (VWL) and the Oak Spring Garden Foundation (OSGF), we are testing the effectiveness of eight methods for establishing and managing native wildflower meadows. One method, which has been successful in Tennessee and Kentucky, is called Spray and Leave: you spray a field once in November to kill cool-season exotics and allow seeds of native plants in the soil (the “seed bank”) to grow. We started by finding out what viable seeds were in the soil. An intern from Fauquier High School collected 140 soil samples from the experimental plots and sowed them in our greenhouse. The resulting seedlings were mostly native plants, such as Nimblewill and White Vervain, with some non-natives mixed in, including one non-native Nodding Thistle. But when we tried the treatment on one section of a fescue pasture, Nodding Thistles took over large parts of the field, for reasons we do not yet understand. Results on the VWL and OSGF properties were similar. We think that Spray and Leave might be more effective in fields that are already dominated by native plants and where only a few non-natives need to be removed. While we are disappointed this relatively cheap establishment method was ineffective, we are excited that we’re already learning so much from the experiment.

## Initial Results of Piedmont Grassland Research

One challenge in restoring grasslands is knowing what species we should be trying to reestablish. This summer, our organization, together with Virginia Tech, hired two interns to survey 35 grasslands in five counties to determine what species are characteristic of unplanted native grasslands in our area. They were assisted by Jordan Coscia from VWL. So far, we have identified 450 plant species, including rarities such as Torrey’s Mountain-mint, Stiff Goldenrod, and American Bluehearts. The species found in our these differ from those found in many meadow plantings in our region, partly because seeds of some key species (e.g. Elliott’s Bluestem) are not available commercially. Some of the highest quality sites we found are in power line clearings. Unfortunately, herbicide spraying in power line clearings, invasion by non-native plants and aggressive mid-western grasses, and urban development are threatening these special habitats. In the coming year we will work with power companies, land managers, and other partners to mitigate these threats. Thank you to the Virginia Native Plant Society for supporting this work!



Our high school intern cleans soil before planting it in pots



Interns and volunteers identify plants in a transect



American Bluehearts found on our grassland plant surveys

## Upcoming Grownup Events

**Open access days for Friends**, Saturdays through October 10  
**Bird Walks**, 2nd Wednesdays and 4th Saturdays, times vary  
**Piedmont Wildflower Walk**, August 29, 10:00AM-12:00PM  
**Pondside Painting**, September 12, 4:00PM-6:00PM  
**Party in the Pawpaw Patch**, September 25, 6:00PM-7:30PM  
**Native Plant Sale**, September 26, 10:00AM-2:00PM  
**Mindful Naturalists: Haiku Hike**, October 10, 3:00PM-4:30PM  
**Introduction to Nature Journaling**, October 17, 1:00PM-3:00PM  
**Walk with a Naturalist**, October 22, 3:00PM-5:00PM  
**Book Club: Sand County Almanac**, October 24, 3:00PM-5:00PM

## Upcoming Kids’ Events

**Middle School Nature Club**, 1st Saturdays, 1:00PM-3:00PM  
**YHikes!**, 2nd Saturdays and 3rd Fridays, 10:00AM-12:00PM, except for a special **Night YHikes!**, September 12, 7:30PM-9:00PM  
**Nature School**, every other Wednesday, 9:00AM-12:00PM  
**Animal Yoga for Families**, September 12, 5:00PM-6:00PM  
**Nature Journaling for Kids**, September 17, 9:30AM-12:00PM  
**Learn more and register at [cliftoninstitute.org/events](http://cliftoninstitute.org/events).**

The Clifton Institute | 6712 Blantyre Rd., Warrenton, VA 20187 | 540.341.3651  
[cliftoninstitute.org](http://cliftoninstitute.org) | [facebook.com/clifton.institute](https://facebook.com/clifton.institute) | [info@cliftoninstitute.org](mailto:info@cliftoninstitute.org)

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