At our November 17 meeting, Caitlin Cyrus will speak about “Floristic Change Spanning 45 Years of Global Change in the College Woods.”

A 1926 photo of Lake Matoaka and Jamestown Road leading toward the College, taken from Mill Neck Road. The building on the right is the old mill, which no longer stands.

The College Woods, located in Williamsburg, is a natural preserve of approximately 960 acres owned by the College of William & Mary. The Woods supports a relatively diverse flora in a mature coastal-plain forest which has been under long-term biological study by members of the College. This talk encompasses the results of Caitlin’s 2016 graduate thesis, which contributes to the ongoing investigation of the Woods by documenting floristic and vegetation changes that have occurred over the last 45 years amidst a rising and uncontrolled white-tailed deer population. Three main questions will be addressed: (1) How has floristic diversity, composition, and species abundance changed since the last floristic survey in 1989? (2) Are there plant traits that associate with a suite of declining species? and (3) What is the estimated forest successional trajectory?

Caitlin Cyrus graduated in 2012 from St. Mary’s College of Maryland with a B.A. in Biology before being accepted to the William & Mary Master’s in Biology program. While at William & Mary she worked closely with Dr. Martha Case and Dr. Stewart Ware to complete her thesis project. She took a brief break from the graduate program in 2015 to accept a summer internship with the Natural Heritage Program in Richmond as a field botanist, and in this position was fortunate enough to travel the state of Virginia in search of rare and threatened plant species. She even worked on the “lost treasures” project funded by the VNPS, where she helped search for populations of rare plant species based on
historic records. In 2016, Caitlin graduated with a M.S. in Biology from the College of William & Mary and accepted a job with a consulting company in Williamsburg (VHB), where she works as an environmental scientist.

The meeting begins at 6:45 at the James City County Rec Center, Room A, 5301 Longhill Road, Williamsburg 23188. See you there!

From the President

At our last meeting we elected Donna Ware as our new Vice-President. She offered to help us out for the next two years and will be choosing programs for our chapter. We also elected Alicia Garcia as the new Treasurer. She will be in charge of our financial goals and spending. I would like to thank Judith Kator, our previous vice-president, for serving us so well these last two years and I am most grateful to her husband, Howard Kator, who worked hard as our Publicity Chair. The Kators are hoping to relocate to another area, and we will miss them when they move. I would also like to thank Patty Kipps, who worked hard as our Treasurer for the past two years, and Phillip Merritt, who was very busy being our Garden Chair. Sue Voigt has offered to take the helm of the Stonehouse Elementary School Habitat Garden as our Garden Chair. We welcome all of our new Board Members.

All our plans for the plant sale were turned around when I received a letter from the Master Gardeners saying they are separating from the joint plant sale with both the Williamsburg Botanical Garden and the John Clayton Chapter of VNPS. It was a total surprise, as they had not given us any indication that this was in their plans. Now we must reorganize and see how we will continue with our plant sale next spring. Change is always difficult, but it is a challenge—we will grow as a result and the potting parties for the plant sale continue as usual. We had two very successful potting parties this fall; the first was at the yard of Kendra Swan and the second was at the Stonehouse Elementary Garden. Because it was so dry, we will return for two plants we could not dig at Kendra Swan’s home. We also worked at the former Eco Discovery Park on October 14 and 15 and so shall also have many rescued plants for our sale. My almost 300 plants were transported to our staging yard at the home of Jim and Joan Etchberger. Thank you to all who participated in all this hard work—it was great to see you help and work in such good camaraderie.

The Board of the Virginia Native Plant Society approved the formation of a task force to explore ways to introduce young people to the out-of-doors and to the plant world in particular. This effort is directed at school-age children. Emily Ford, the Board’s Education Director and lead environmental educator at the State Arboretum at Blandy Farm, will chair this Task Force. As such she is very familiar with the state’s Standards of Learning (SOL) and is familiar with other existing materials from our resources. They would like each chapter to solicit a volunteer who is interested in
this subject and can meet with the other members of the Task Force before Christmas. They would like to know what activities our chapter has undertaken, such as partnering with an elementary school to create a native plant habitat, offering plant identification during field trips, or sending a child or children to an environmental camp. If you are interested in this initiative, please let me know at lkossodo@cox.net—our future members are waiting for you to lead the way!

Work on the native plant guide has now finished and the guide is being printed as I write to you—all the writing, editing, and seeking photos of plants in this area have come to a close. I will soon announce the release of the guide and information on how to purchase it. Gardeners will certainly be pleased to have all that information and images at their fingertips. I would like to thank our members Helen Hamilton, Denise Greene, Phillip Merritt, Jan Newton, Seig Kopinitz, and Louise Menges for the photographs they allowed us to use. I hope I gave the correct credit to each photographer. We will not only be able to sell the copies of the guide we receive, but it will be posted on our website when it is ready. On another front, Helen Hamilton is also getting her new book on Ferns and Mosses finished and ready to publish. I think our members will want to get this new book for all the information and images we look for in identifying what we see on our walks. I always need help identifying ferns and am quite eager to learn about the mosses around us.

I would like to wish all of you the best for the upcoming holidays. May you have a happy and peaceful New Year

Lucile Kossodo

New Members

We welcome four new members:

Jennifer Boag and Cheryl Roettger, both of Williamsburg; Sharon Springfield of Carrollton; and Joseph Thompson of Midlothian.
Recent plant walks…

**Freedom Park Fern Walk on September 10**

Several members of Cohort XI—the newest training class of the Virginia Master Naturalist Historic Rivers Chapter—joined Helen Hamilton and others for a native plant walk at Freedom Park; a focus on ferns was the intent of this walk. By the time we finished we could identify several ferns by shape, pinnae, color, and height. This was a great accomplishment for many since previously we could recognize a fern but not give it a name. The repetition of seeing these plants, being reminded of the characteristics of each one, and support from group members as well as Helen made this walk feel like we were actually learning and retaining information.

Although the walk was to focus on ferns, conversation and findings often strayed from the announced topic. Sightings of oyster mushrooms, pawpaws, lichen, climbing hydrangea, and Elephant’s Foot kept us looking both up and down for new sightings. Also, the 2016 Virginia Wildflower of the Year, Downy Rattle-snake Plantain (*Goodyera pubescens*), was located in the woods on our walk.

Thank you to the Virginia Native Plant Society’s John Clayton Chapter for sharing your time, talent, and knowledge with Cohort XI and our community.

**Connie B. Reitz**, Cohort XI training class member

---

**Clothed Tree Walk on September 17**

Black Tupelo, Allegheny Chinkapin, Sassafrass. They all sound pretty exotic, but these native Virginians populate forested areas throughout the Peninsula. On a sunny Saturday in September, members of the public, of VMN’s Historic Rivers Chapter, and of the John Clayton Chapter of the Native Plant Society gathered around the edges of the parking lot at Wellspring United Methodist Church to get to know some of our tree neighbors a little better. The reader may protest: native plants in a parking lot? Well, it may not be the most bucolic-sounding locale, but anyone driving along this part of Longhill Road can’t help but be dazzled by the dense forested areas that border it. The church parking lot provides perfect access to the trees along the forest edges, and therefore offered an ideal spot to stop and get up close and personal with a few of our native Virginia woodland species.
Leading the group was William and Mary Biology Professor Emeritus Dr. Stewart Ware, who taught attendees, this transplant to Virginia among them, how to spot (by my count) 22 different tree species. By the end of the walk, we had crushed the leaves of the sweetgum to smell its distinctive scent, tasted the leaves of the sourwood, and could identify with ease sassafras, white oaks, loblolly pines, and Virginia pines, among others. And now I know that even that pesky, thorny “weed” persistently cropping up along my fence line has a pretty exotic name for itself as well (Devil’s Walking Stick), and has been in Virginia far longer than I have.

Anita Angelone

Other recent events…

A Potting Party at Kendra Swann’s on September 17
John Clayton Chapter members met at Kendra Swann’s home in Ford’s Colony to dig native plants from her property and then took them to Joan Etchberger’s, where they were potted. Among the plants dug were Woodland Sunflowers, Christmas Fern, *Itea virginica* (Virginia Sweetspire), and Ostrich Fern.
National Park Service Bioblitz September 24
On Saturday morning, September 24, over 70 adults and 20 young people surveyed several local areas for the names and numbers of butterflies. This was part of a nationwide effort to discover and document biodiversity, and to celebrate the 100th anniversary of the National Park Service. JCC chapter members Helen Hamilton, Sara Nugent, and Sue Voigt staffed a display table at the Jamestown Information Center.

Upcoming events and walks…

Native Uses of Native Plants: a talk on November 19
On Saturday, November 19 at 10:00 am at Freedom Park Interpretive Center, 5537 Centerville Rd., Williamsburg, Helen Hamilton will deliver a PowerPoint talk about the food, structures, and medicines used by Native Americans. Helen will explore how the native materials provided the survival needs for early settlers of eastern North America, with an emphasis on the experience at Jamestown. This event is part of the Learn and Grow Educational Series sponsored by the Williamsburg Botanical Garden. The program is free, although a $5.00 donation to help the Garden grow is appreciated. For more information, contact Helen at 757-564-4494 or email her at helen48@cox.net.

Fall Color: A walk on Sunday, November 20, 2:00 pm
Peninsula Master Naturalist Susie Yager will lead this colorful walk and discuss how the power of observation can help us identify fall trees from a distance by their general growth habit and leaf color. In addition to the autumn leaves, there will be color from fruiting American Holly, Winterberry Holly, Partridgeberry, and Swamp Rose. Migrating waterfowl often stop over at Lake Maury, so you may want to bring a camera or binoculars.

Meet at the Holly Overlook parking area (GPS coordinates approximately 37.046776, -76.487540) in Mariner’s Museum Park, Newport News. Enter Mariner’s Museum Park on Museum Drive from Warwick Blvd. and Fine Arts Ave. Drive past the two large parking lots, then take the right fork and turn left onto a small side road. Look for VNPS Walk sign. The walk, approximately 2 miles, will cover a portion of the Noland Trail in Mariner’s Museum Park, where many trees should be showing bright colors—particularly striking when viewed across Lake Maury.
More news…

A visit from the Newtons on October 27

Jan and Callie Newton were in town visiting Jim, who is consulting in Toano. All her friends were invited and most attended a potluck dinner at the home of Helen Hamilton. It was good to get caught up with Jan and her activities in Alabama, all revolving around plants, of course! She has written several little guides to gardening for butterflies, native plants, and perennials for wildflower gardens, to be distributed in Lee County, Alabama. Jan is writing similar guides for our chapter’s use in this area. Thank you, Jan!

…and a note from Sue Voigt, Stonehouse Schoolyard Habitat Facilitator:

Jan Newton worked with me for a couple hours on Friday morning, Oct 28 in the Stonehouse Habitat garden. She helped me deadhead, helped identify some plants and gave me suggestions on how to keep the garden under control. She even collected some seeds to take back home.

Sue invites members to join her at 9 am for a workday at the Habitat Garden on Sunday, Nov. 12.

Plant Profile

More Tiny Plants

I had been warned…these plants are really small and their identification often depends upon the shape of the leaf cells in different sections of the leaf. And some leaves are less than 1 mm long. So out come the microscopes, the slides and coverglasses which I had not used since I finished teaching biology in a local high school.

Sometimes the leaves are large enough to be seen without magnification, and in good light, the teeth on the outside edges may be visible. One group of mosses, the Mniums, are divided into 4 groups, those without teeth or border (a group of different, long cells around the edge), and 3 with teeth that are double, or single and…
extend all the way around the leaf, or just partway. This is relatively easy to determine, with a 10× hand lens (somehow, I find this sort of thing fascinating…)

One reference uses diagrams at the end of each page, dividing all the mosses into groups using the shape of the leaves: long and skinny, short and fat, pointed, rounded or curved at the tip, with or without a midrib—very useful for a quick look at the photos and page descriptions.

Each leaf can be flat or cupped, pleated (a little or lots), folded inward to almost form a tube, closely pressed to the stem or sticking outwards.

It would seem one of the easiest characters would be the presence or absence of what seems to be a midrib, actually just a group of cells that are different, longer and packed together. In mosses the term “midrib” is often used, but the correct name is “costa” since there are no conducting tubes in this area, just a group of specialized cells. One of the first divisions in many keys to mosses is the presence or absence of a midrib; is it single or double; if single, does the midrib extend all the way to the tip, or just partway?

Often identification to species cannot be done without finding capsules (reproductive bodies carrying spores) which will start the next generation of eggs and sperm which come together to form the diploid leaf sporophyte, all the green that we typically associate with mosses. In haircap mosses, the capsules are extended on long stalks (setae), but in other species they are without stalks, emerging from the ends of stems or on very short stalks. Colors range from brown to yellow to red of the stalks and the capsules which can be long cylinders or rounded ovals, etc.

In most references, mosses are separated initially as acrocarps, those that produce capsules at the tips of stems, like the haircap mosses, or the more common pleurocarps, mosses that branch repeatedly on the substrate and send up short side branches carrying the capsules.

And then the ferns. They also show two generations, a very small green body that produces male and female sex cells (we never see these), from which develop the familiar green fronds. Ferns then produce spores in different ways. Near the end of summer, Cinnamon Fern and Sensitive Fern produce separate stalks with brown bodies, car-
rying tiny spores to start the next generation. Many other ferns carry their spores in little packets on the underside of the leaflets of the fronds. These are packaged in different forms—rounded, curved, at the edges of the leaflets or at the ends of veins, or shaped like train cars, long and rectangular.

Ferns are larger and can easily be identified without magnification, but a close look at the spores is always rewarding.

Helen Hamilton

Helen’s new book is printed and ready for distribution! (See below.)

Ferns & Mosses of Virginia’s Coastal Plain

Helen Hamilton

The book, with 79 spiral-bound pages, includes 23 ferns, 19 mosses, 7 liverworts, and 4 lycophytes, and is available for $15.00 (including tax and shipping).

(Copies of Wildflowers and Grasses of Virginia’s Coastal Plain are still available at $25.00 each.)

Make checks to Helen Hamilton
PO Box 314
Lightfoot, VA 23090-9998
Include your mailing address
**Nature Camp Rocks in 2016!**

Nature camp is a magical place in the not-too-far-away land of Vesuvius, Virginia. Nestled into the George Washington National Forest are the rustic bunkhouses for campers and staff who explore the ever-widening circles of nature as the campers age in years, experience and enthusiasm. Nearby are the dining room/meeting hall, an educational building with collections ranging from insects to bird eggs and microscopes for studying them, with field guides nearby. Campers and staff are also known to visit the canteen or camp store when in need of pencils, snacks or souvenirs.

But the real fun is crossing the bridge into camp, beyond the buildings, venturing into the wild world of six-spotted tiger beetles crawling under leaves and death angel mushrooms hanging out with oak trees, or searching for salamanders at Buttermilk Springs or hiking to Table Rock and shouting about the awesome view. And campers never fail to mention the new friendships that sometimes last forever.

During the summer of 2016, our John Clayton Chapter of VNPS funded scholarships for four area students. Geology or “rockology” was Nash McDowell’s major class. She wrote, “We all knew from the first day that it would be an interesting and fun class when Lindsey [the leader] poured hydrochloric acid on limestone and made it fizz…loved going on hikes, smashing rocks, and identifying different rocks.” Nash scored high with one of the three Best All-around Camper awards. Her brother, South McDowell, studied Mycology, and played piano in an instrumental trio for his session’s Camper Talent Show. Sofia Mendez reported a successful Entomology major — “learning about insects and their relationship to the rest of the natural world.” Katie Gentry attended the last session, and as yet, no news on her adventures.

Nature will always be the focal point of the camp experience, and the staff take seriously their mission to “train a corps of interested, knowledgeable youth, from 5th through 12th grade, to conserve and protect the environment and to become wise stewards of the earth’s natural resources.” Learning in an experiential environment also promotes cooperation, respect for others, and the ability to meet new challenges. Watch these kids soar into their futures!

Our annual plant sale and the generosity of the Carolyn Will Memorial Fund make these scholarships available. We welcome and appreciate your participation in all the potting parties, plant rescues, and sale days that make these Nature Camp experiences a reality.

**Patti Gray,**

JCC/VNPS Nature Camp Selection Committee
Here are some photos taken during this year’s Nature Camp activities—

Birding?

Geology (or perhaps biology?) in a stream

In the educational building
**John Clayton Chapter Calendar**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, Nov. 12</td>
<td>9:00 am</td>
<td>Join Sue Voigt for a <strong>Stonehouse Habitat work day</strong> at the <strong>Stonehouse Habitat Garden</strong>, 3651 Rochambeau Dr, Williamsburg, VA 23188. (See Page 7.)</td>
</tr>
<tr>
<td>Thursday, Nov. 17</td>
<td>6:45 pm</td>
<td><strong>John Clayton Chapter meeting</strong> at the <strong>James City County Rec Center</strong>, 5301 Longhill Rd., Williamsburg. Caitlyn Cyrus will speak about <em>“Floristic Change Spanning 45 Years of Global Change in the College Woods.”</em> (Details on Page 1.)</td>
</tr>
<tr>
<td>Saturday, Nov. 19</td>
<td>11:00 am</td>
<td><strong>Native Uses of Native Plants.</strong> Helen Hamilton will deliver a PowerPoint talk about the food, structures, and medicines used by Native Americans at the <strong>Freedom Park Interpretive Center</strong>, 5537 Centerville Rd., Williamsburg. (Details on Page 6.)</td>
</tr>
<tr>
<td>Sunday, Nov. 20</td>
<td>2:00 pm</td>
<td><strong>Fall Color.</strong> Meet Susie Yager at the <strong>Mariner’s Museum Park in Newport News</strong> to see colorful fall foliage and fruit. Meet at the Holly Overlook parking area (GPS coordinates approximately 37.046776, -76.487540). Contact Susie at 757-595-3185 or <a href="mailto:soozigus@cox.net">soozigus@cox.net</a> for more information. (Details and directions on Page 6.)</td>
</tr>
</tbody>
</table>

There may be walks in the works which did not make this issue, so keep a lookout for announcements about additional walks and other events on our website at [www.vnps.org/john clayton](http://www.vnps.org/john clayton) and in the local newspapers.
Below is a membership renewal form. Please contact Membership Chair Fred Blystone at 757-229-4346 or at fredblystone@gmail.com with questions about your membership.

Membership Form for John Clayton Chapter, Virginia Native Plant Society
(Place checks in the boxes below next to your selections.)

I am a  [new member]  of the John Clayton Chapter  [renewing member]  of the John Clayton Chapter

Name
Address
City       State       Zip
Email*     Phone*

☐ I would like to receive my newsletters electronically at the email address above.

Membership dues
☐ Individual ($30)  ☐ Family ($40)  ☐ Patron ($50)  ☐ Sustaining ($100)  ☐ Life ($500)
☐ Student ($15)     ☐ Associate ($40) —for groups who designate one person as delegate

I wish to make an additional contribution in the amount of $  [ ] to John Clayton Chapter  [ ] to VNPS

☐ This is a gift membership; please include a card with my name as donor.

I have ☐ time  ☐ a little time  ☐ no time to help with activities.

☐ I do not wish to be listed in a chapter directory.

*Please Note:  John Clayton Chapter does not distribute any of our membership information to other organizations. It is used only by the officers and chairpersons of our chapter.

Make your check payable to VNPS and mail to:  VNPS Membership Chair  
400 Blandy Farm Lane, Unit 2  
Boyce, VA 22610