



# Claytonia

Newsletter of the John Clayton Chapter, Virginia Native Plant Society

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[www.claytonvnps.org](http://www.claytonvnps.org)

## Officers

**President** Lucile Kossodo  
757-565-0769  
[lkossodo@cox.net](mailto:lkossodo@cox.net)

**Vice-President** Donna Ware  
757-565-0657  
[dmeware1001@gmail.com](mailto:dmeware1001@gmail.com)

**Treasurer** Alicia Garcia  
757-570-3164  
[alicia.m.garcia81@gmail.com](mailto:alicia.m.garcia81@gmail.com)

**Secretary** Cortney Will  
757-291-1500  
[clangley@plantrescue.org](mailto:clangley@plantrescue.org)

## Committee Chairs

**Awards** Donna Ware  
757-565-0657  
[dmeware@verizon.net](mailto:dmeware@verizon.net)

**Hospitality** Sara Nugent  
757-253-1666  
[gluistean2001@yahoo.com](mailto:gluistean2001@yahoo.com)

**Membership and Publicity**  
Cathy Flanagan  
757-879-1997  
[flanagan.catherine@gmail.com](mailto:flanagan.catherine@gmail.com)

**Nature Camp** Libbey Oliver  
757-645-7143  
[lholyver55@gmail.com](mailto:lholyver55@gmail.com)

**Newsletter** Louise Menges  
757-229-4346  
[louisemenges6@gmail.com](mailto:louisemenges6@gmail.com)

**Plant Rescue** Cortney Will  
757-291-1500  
[clangley@plantrescue.org](mailto:clangley@plantrescue.org)

**Plant Sale Co-chairs**  
Adrienne Frank  
757-566-4009  
[adrienne-gary@cox.net](mailto:adrienne-gary@cox.net)  
Sue Voigt  
804-966-8487  
[svoigt1@cox.net](mailto:svoigt1@cox.net)

**Plant Walks** Helen Hamilton  
757-564-4494  
[helen48@cox.net](mailto:helen48@cox.net)

**Stonehouse Garden** Sue Voigt  
804-966-8487  
[svoigt1@cox.net](mailto:svoigt1@cox.net)

**Webmaster** Phillip Merritt  
352-727-1994  
[phillip.merritt@gmail.com](mailto:phillip.merritt@gmail.com)

## Our Jan. 18 meeting: Professor Lytton Musselman on "The Strangest Plant in the World"

**Dr. Lytton Musselman**, Professor of Botany at Old Dominion University, will speak to us about "The Strangest Plant in the World" at our January 2018 Chapter meeting. Dr. Musselman's research over the past five decades has centered on parasitic flowering plants, especially those that cause extensive crop damage in semi-arid regions of the world. This work has resulted in many publications. Among the publications his more local research interests have produced are *The Quick Guide to Wild Edible Plants* and the field guide *Plants of the Chesapeake Bay*, each coauthored with one of his students. In his talk, Dr. Musselman will use a bizarre "mystery plant" (he hasn't yet divulged its name to us!) to lead us into the wonders of the lifestyle strategies of cannibalistic plants! He will also highlight some of the parasitic flowering plant species that occur right here in Virginia.

**NOTE NEW MEETING PLACE:** The meeting will be held at 7:00 p.m. on **Thursday, January 18th**, in the fellowship hall of **King of Glory Lutheran Church, 4897 Longhill Road** (between the entrances to Williamsburg West/Ford's Colony and Wellspring United Methodist Church and a short distance east of the 7-Eleven at the Longhill/Olde Towne Rd. intersection).

**See you there!**



## From the President

I would like to wish all of you a very Happy New Year in 2018. This will be a very busy year for this chapter: we will have our usual Plant Walks, Plant Sale, and Meetings, but we will also be hosting the State Annual Virginia Native Plant Society Meeting on Friday, September 9 until Sunday, September 16, 2018. Our theme will be Sustainable Organizations. The Annual Meeting Chair, Courtney Will, has written an article on this event.

I need to revisit November to give a great Thank You to our vice-president, Donna Ware, and to our former president and author, Helen Hamilton. Our speaker for the November meeting was Bland Crowder, associate director and editor of the *Flora Virginica* published in 2012 and now the *Flora Ap* for all students of Native Plants.

He was going to speak on how to use the Flora App on our phones and iPads. But at 5 PM or so on the evening of the meeting, Donna Ware received a call from him saying that he had been in a three-car accident and was awaiting help, as he believed that his wrist was broken. Donna called Helen and asked her if she had a topic that she could substitute, and she did! Then she called me, and I rushed to inform the attendees that the meeting would be delayed and the reason for the change in the program. Helen's talk on plants without flowers was most interesting. Bland called a few days later and said he had indeed broken his wrist and had had surgery that had successfully repaired it. He is recovering well.

We, The Virginia Native Plant Society, received a very nice Christmas gift by the announcement at the VNPS December meeting about the discovery of a plant, rare and considered lost in Virginia, which Zach Bradford re-discovered. Zach is a member of the Natural Heritage Division of the Virginia Department of Conservation and Recreation. He discovered a new population of Cream-flowered Tick-trefoil (*Desmodium ochroleucum*; G2SH) at Cumberland Marsh Natural Area Preserve in New Kent County. Yes, just next door to us in this chapter!

Last collected in Virginia in 1969 and, with no further sightings, presumed lost, Cream-flowered Tick-trefoil is only known from about two dozen sites (totaling roughly 700 plants) across its range in the Mid-Atlantic and Southeast. The newly-discovered population in Virginia totals many plants, displays evidence of ample new seedling recruitment, and is likely one of the largest known populations of the species. Throughout most of its range, Cream-flowered Tick-trefoil is typically found in glades and open woodlands over calcium-rich substrata like limestone. Previous collections in Virginia were located in unremarkable places like roadsides. The New Kent County population co-occurs with other calcium-lovers like Nettleleaf Noseburn (*Tragia urticifolia*), Yellow Giant Hyssop (*Agastache neptoides*), Wild Columbine (*Aquilegia canadensis*), and Buckthorn bumelia (*Sideroxylon lycioides*), indicating the site is



Zach Bradford's photos of Cream-flowered Tick-trefoil

underlain by nutrient rich alluvial sediment with shell deposits. There are various *Desmodium* plants in the Coastal Plain, but they are all quite pink with leaves varying in shape from round to oblong to pointy. DCR will continue to work with The Nature Conservancy to manage the site to promote the open clearings this extremely rare species favors. This New Kent County rediscovery underscores the need for continued field inventory by Natural Heritage Inventory and Stewardship Biologists across Virginia's changing landscape. Moreover, this serves as a reminder of the treasures protected by and managed on Virginia's Natural Area Preserve System. Thank you, Zach, for allowing me to copy your article and photos.

The Christmas-time gifts continue. Nancy Vehrs, our VNPS president, just announced that VNPS was successful with its DuPont-Waynesboro Settlement Grant application for land surrounding Mount Joy Ponds National Area Preserve. VNPS requested \$1.8 million. It received \$1,275,065! This amounts to most, but not all, of the parcels requested surrounding the Mount Joy Ponds Natural area Preserve. It gives our Society a great addition to the protecting the preserves. What a great job for our writers of grants in VNPS. Way to go, Nancy!

In January, I shall continue with managing the plants for our Annual Plant Sale on Saturday, April 29, 2018. We are trying to save all the money we can, so I am asking that you let me know if you have plants that you can contribute to our sale. We do not wish to pay for plants that you could make available to us. Yes, the ground may be frozen, but you know what you have under the ice...if it is crowded and you can share, let me know now so we can arrange to dig them up this spring; write me a message at [lkossodo1@gmail.com](mailto:lkossodo1@gmail.com).

**Lucile Kossodo**

## **New Members**

We welcome **Elizabeth McCoy** and **Robert Lewis**, both of Williamsburg, to the John Clayton Chapter.

## **From Cortney**

### **Notes from the Board**

The November Board meeting was particularly productive. As you know, the John Clayton Chapter has agreed to host the 2018 VNPS annual meeting. We had received four bids for venues and the Board voted to host the conference at the William & Mary School of Education in Williamsburg. We are excited to announce that the theme for the annual meeting will be sustainability, allowing us to explore ways that the chapters can increase their vitality and viability and serve a greater portion of the population of Virginia, thereby increasing their firepower in advocating for native plant populations. The meeting will be held over the weekend of Sept. 14–16, 2018.

We also have some exciting news in terms of publicity. For years we have relied on trifold brochures to introduce people to our chapter. With Cathy Flanagan heading up publicity efforts, we now have a newly designed, attractive rack card that significantly updates our publicity materials. Keep your eyes out for that on plant walks, the general membership meetings, and the annual plant sale.

Libbey Oliver has been working hard to coordinate our Nature Camp scholarships. A few years ago, the John Clayton Chapter teamed up with the Historic Rivers Master Naturalists and other local organizations to jointly solicit, evaluate, and award Nature Camp scholarships within our coverage area. As a result, between the groups 12 Nature Campers will be awarded scholarships this year. The collaboration has been a fantastic success not only for John Clayton, but for scholarship applicants, who only have to fill out one application which is reviewed by a committee from all of our chapters.

We hope you enjoy a warm holiday season,

**Cortney Will**, Secretary

### Rescue News

In mid-November, the rescue team had an opportunity for a unique partnership with CNU environmental conservation students. Four students were undertaking a project to establish a riparian buffer in Riverview Farm Park. In the area, the topsoil had been removed to create a berm bordering the James River Water Treatment Center, leaving behind soil that was not regenerating and could not support a healthy plant population. In response, the students had partnered with the Department of Energy to restore the area, bringing in topsoil, erecting silt fencing and planting to prevent further erosion and to promote future growth.

The rescue team was happy to donate plant material to this project, meeting student Caroline Ratliff on the site with a load of native trees, shrubs, and perennials, including Southern sugar maples, red maples, blueberries, sweet shrubs, Christmas and other ferns, green-headed coneflowers and more. As it turns out, the CNU students had also involved interested Warwick High School students to come plant the material. We look forward to seeing the restored area after it has a chance to overwinter. We're betting it's going to be much improved by the spring and pretty lush next summer.

The rescue team also recently contracted with a designer to redo our logo, which sorely needed an update. Keep an eye out for that in the new year. Drum roll, please...

Happy digging,

**Cortney**



CNU student Caroline Ratliff with the first load of restoration project plants donated by the Williamsburg Native Plant Rescue Team

### Save the date!

The 2018 VNPS Annual Meeting will be held at the William & Mary School of Education on Sept. 14–16, 2018. We are excited to announce a theme of sustainability, considering ways that we can make our organizations healthier and more viable, which in turn will allow us to multiply our efforts to preserve Virginia's natural plant populations. And of course, we'll have some excellent walks, outings and presentations, some great food, and charming companionship.

A number of members have contacted me to offer help for the conference. Thank you! I hope to convene a group of people interested in helping after the new year. If you'd like to participate, please let me know! Otherwise, look for more news about the upcoming conference and ways to be of service in future newsletters.

**Cortney**

### Our November Meeting: "Plants without Petals"

As Lucile Kossodo mentioned in her President's letter, Bland Crowder, Executive Director of the Flora of Virginia Project, was scheduled to give a presentation on the new *Flora of Virginia* mobile app, but sustained a broken wrist in an automobile accident on his way. On a moment's notice, our own **Helen Hamilton** gave our membership a most interesting talk on "Plants without Petals." Helen has taken a serious interest in the study of Bryophytes (mosses and liverworts) as well as the Poaceae (grasses), Juncaceae (rushes), Cyperaceae (sedges), and Pteridophytes (ferns). Many of these plants are excellent alternatives to lawns and high maintenance ornamentals.

Helen began her talk by describing the many charms of native grasses such as Purple Muhly (*Muhlenbergia capillaris*), River Oats (*Chasmanthium latifolium*), Switchgrass (*Panicum virgatum*), Little Bluestem (*Schizachyrium scoparium*), and Splitbeard Bluestem (*Andropogon ternarius*). While grasses don't attract pollinators, they do provide shelter for insects that lay their eggs in the hollow stems. They are drought tolerant and require little maintenance. Even without petals, grasses can provide



Our meeting's speaker, Helen Hamilton, and Chapter President Lucile Kossodo



Longtime member Ralph Will visits with Mike Whitfield, who joined our chapter recently.

the garden with spectacular color, as does Purple Muhly with its airy plumes or the cultivars of Switchgrass with different colored seed heads. In the sedge family, Helen attests to the good behavior of Bottlebrush Sedge (*Carex comosa*) and Sallow Sedge (*Carex lurida*), which can be used along a walk due to their clumping, non-spreading nature; the interesting seed heads are a plus and look great in arrangements as well. Woolgrass (*Scirpus cyperinus*), with its aggressive roots, is excellent for erosion control and pairs beautifully with late blooming asters and goldenrods. It is also attractive for container planting where space is limited. “What’s not to love?” Helen coaxed.

Moving on to ferns, Helen pointed to the fact that deer do not browse on them, and some, such as the Christmas fern (*Polystichum acrostichoides*) and Ebony Spleenwort (*Asplenium platyneuron*), stay green all year. Ferns, like grasses, also provide much beauty in graceful form and features despite having no blooms. Cinnamon Fern (*Osmundastrum cinnamomeum*), for example, bears huge arching silvery fronds. They are the first ferns up in the spring. In the fall, the reproductive fronds turn from green to a warm cinnamon brown, rising straight and tall and providing a striking contrast in form and color. The Southern Lady Fern (*Athyrium asplenoides*), also has large lacy fronds that can be distinguished by the spore pattern on the back of the leaves and the angle of the two lower leaflets. It is well suited to woodland gardens. Again, Helen asked “What’s not to love?” She then continued with some ID tips for many of our native ferns such as the delicate-looking New York fern (*Thelypteris noveboracensis*). It is distinguished by the lower leaflets being diminished in size, giving the whole leaf the appearance of being tapered at both ends. The Netted Chain Fern (*Woodwardia areolata*), and Sensitive fern (*Onoclea sensibilis*), can sometimes be confused as they are found in the same swamps and wet woods. It can also be hard to distinguish the Rattlesnake fern (*Botrypus virginianus*) from the Cut-Leaf and Southern Grape ferns (*Sceptridium* spp), one difference being that the fertile fronds appear at different times of the year.

Helen also reviewed a little evolutionary history to provide some perspective on where these plants without petals are on the evolutionary timeline. Descendant from the aquatic green algae that date back billions of years, the Bryophytes (mosses and liverworts) first appeared about 500 million years ago. They pre-date the ferns and coniferous plants by about 100 million years and flowering plants by about 300 million years! The Bryophytes have no vascular system; they can only absorb water through their bodies, and have characteristics of both aquatic and land plants. The Pteridophytes (ferns) are a pioneer species, as they were the first to have a vascular system and thus are the first true land plants. Both ferns and mosses have two forms of reproduction, alternating between sexual and asexual phases. The above ground plants are either male or female. For all the

details, you'll need to come to one of Helen's lectures! The forms and structures of mosses are amazing. A hand lens is helpful, but to definitively identify some species requires examination under a microscope.

From the practical perspective, mosses can be beautiful and functional alternatives to lawns. They are not so easily maintained as one may think, however; invasives and unwanted plants can be as difficult to remove as they are in lawns. The delicate Fern Moss (*Thuidium delicatulum*), is an excellent choice for a lawn substitute. The leaves are 3× pinnate and only measure 1–2 mm, but according to Helen's book, *Ferns and Mosses of Virginia's Coastal Plain*, the strong interwoven branch pattern makes them tolerant of trampling. Helen recommends a book by Annie Martin, *The Magical World of Moss Gardening*. Judging by the cover, I will have to buy it—it does seem that the more closely you look at mosses, the more you are drawn into their tiny, “magical” world. Brocade Moss (*Hypnum* spp), for example, has a braided appearance on close inspection and is another beautiful moss for a shady garden. Pincushion Moss (*Leucobryum glaucum*) is common everywhere in Virginia, and is one that does not require a microscope for identification. Haircap Moss (*Polytrichum ohioense*), also common in Virginia, is one that can be easily recognized by its dark green leaves and more open branching pattern. I highly recommend going on one of Helen's walks; it just may open a new world to you.

Cathy Flanagan

### Plant Profile: *Smilax* spp.

Greenbrier, Catbrier, Sawbrier, Bullbrier, Carrion-flower—members of this genus have many common names, none of them conveying that of a friendly plant. Rather, the leaves of many species have strong prickles, and the stems have thorns to hook onto branches of other plants. New homeowners of old farms and less-than-new houses often find part of the property covered with dense impenetrable thickets of the vine, viewed by some as “razor wire.”

While clumps of these plants are daunting to gardeners, all this greenery is important food and shelter for wildlife. Black Bear eat the berries and shoots, deer graze on new growths, and birds enjoy the berries, passing the seeds along to another site. Native Americans found many uses, culinary and medicinal, for species found here in the Coastal Plain.

Members of the Greenbrier Family are widespread in the tropics, with a few temperate species. They are concentrated in eastern North and South America and East Asia—a classic eastern N.A.–east Asian disjunction. The *Flora of Virginia* describes 10 species, 6 frequent in our area. Three grow all over Virginia, and others are found mostly in the Coastal Plain and Piedmont. Many gardeners view these woody vines as “invasive” but they are not introduced—all are native locally.

Common Greenbrier, *Smilax rotundifolia*, was described by Linnaeus from plants collected by colonial botanists and sent to Europe. Also known as Sawtooth Greenbrier, Horsebrier, and Roundleaf Greenbrier, this is not a plant loved by gardeners, growing all over natural wooded areas, draping stems from shrub to shrub—it's easy to get caught in a group of bending and sprawling shoots, the thorns catching on smooth clothing and impossible to remove from woolen sweaters (this from personal experience in a bottomland near Gloucester).

Easy to recognize, Common Greenbrier has rounded leaves that are bright green on both sides and strong parallel veins. While these leaves often persist over the winter, most species are deciduous. Tiny yellowish-green flowers (male and female on different vines) bloom for two weeks in April or May, followed by clusters of blue-black berries from September through November. Among the many birds that feed on the berries are Catbird, Brown Thrasher, Eastern Bluebird, and White-throated Sparrow.

The name of another common species, White-leaf Greenbrier, *Smilax glauca*, describes the leaf that is whitened underneath. This vine is very bristly, with stiff, straight, and curved prickles along the shoots that climb and entangle other plants, forming thickets. Superficially the leaf resembles that of *S. rotundifolia*, but the strong white underside is distinctive and the tip of the leaf is more pointed. The blue-black berries are excellent fall and winter food for wildlife.



Helen Hamilton

Above, Common Greenbrier's leaves, and below, its berries



Helen Hamilton



Jan Newton

Whitened undersides of White-leaf Greenbrier leaves

Common Carrion-flower, *Smilax herbacea*, is listed in *The Flora of Virginia* as “frequent” throughout, not “common.” Tendrils at the base of leaf petioles allow the plant to cling to adjacent vegetation for support, but the vine does not form tangled masses, and the stems disappear at the end of the growing season. This is one species of *Smilax* suitable for the home landscape.



Helen Hamilton

Common Carrion-flower's odiferous flowerheads

From May through June many tiny greenish flowers are in rounded clusters on stalks at the leaf axils. The flowers release a scent similar to that of decaying animal flesh, attracting pollinators from May through June, which is why it is called “Carrion-flower.” They are pollinated by small bees and flies, including Flesh Flies and Blowflies. The shoots and deep blue berries are attractive to many types of wildlife.

Three species are more local, growing in the Piedmont and Coastal Plain.

Catbrier, *Smilax bona-nox*, is distinctive, with leathery triangular leaves that have a broad lobe on each side, presenting an “eared” appearance. This is another woody vine with sharp prickles that climbs up trees, over shrubbery, and along the ground, creating thick brambles. Leaves are green beneath, often mottled with white. The leaf edges are often bristly, and when smooth, a raised, wire-like vein runs along the margin. In late spring small, inconspicuous flowers appear in clusters in the axils of the leaves, male and female on different plants.



Seig Kopinitz

The mottled triangular leaves of a Catbrier

Laurel-leaf Greenbrier, *Smilax laurifolia*, is a woody vine with prickles, described as “robust, high-climbing, often forming very dense impenetrable thickets, viciously armed” (*Flora of Virginia*). The leaves are leathery, evergreen, and slender, with three veins. This plant prefers wet habitats—swamps, bogs, and wet woods. Black berries



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A “viciously armed” Laurel-leaf Greenbrier

with a whitish bloom supply food for birds and some mammals, and the dense growth is excellent cover for wildlife. This is a vine heavily covered with strong prickles—it is not a plant for the home garden!

Coral Greenbrier, *Smilax walteri*, is so named for the bright red to orange berries that appear in the fall. A woody vine that climbs over bushes, it can form dense thickets, but there are few and scattered prickles. The leaves are deciduous, oval in shape and relatively thin. This is another *Smilax* that likes moisture, growing in swamp forests and wet woods.



Coral Greenbrier's colorful berries

Native Americans and colonists cooked the shoots of greenbriers and added young leaves and tendrils to salads well into summer. The roots form a large tuber similar to a sweet potato that served many needs. Dried, pounded to a powder, and mixed with water, the final paste was used to thicken soups, to make jelly, and to treat minor aches and pains. Francis Peyer Porcher, an American botanist, wrote that the American Indians as well as soldiers during the Civil War fermented the Greenbrier tuber into a “home brew,” adding saffron for flavor, to lighten their spirits. The leaves of the Greenbrier can be used as a dressing for cuts and burns.

Greenbriers are not plants for the home garden, but in the wild, they provide many benefits to wildlife, allowing them to survive in a growing urban landscape.

The young shoots are excellent cooked like asparagus and served with butter. Also, the young shoots, leaves, and tendrils can be prepared like spinach or added fresh to salads as long as they remain tender and juicy, often well into summer. The tuberous roots will provide a gelatin substitute when crushed, cleaned and dried.

**Helen Hamilton**



## John Clayton Chapter Calendar

**Thursday, January 18** 7:00 pm: "The Strangest Plant in the World", a talk about parasitic and cannibalistic plants by **Professor Lytton Musselman** of Old Dominion University

The meeting will be held in the fellowship hall of **King of Glory Lutheran Church, 4897 Longhill Road** (between the entrances to Williamsburg West/Ford's Colony and Wellspring United Methodist Church, a short distance east of the 7-Eleven at the Longhill/Olde Towne Rd. intersection. **(Note new meeting place.)**

(See Page 1.)

**There are currently no walks planned for January or February.**

Keep a lookout for announcements about additional walks and other events in the local newspapers and on our website at [www.vnps.org/john clayton](http://www.vnps.org/john%20clayton).

Below is a membership renewal form. Please contact Membership Chair **Cathy Flanagan** at 757-879-1997 or at **[flanagan.catherine@gmail.com](mailto:flanagan.catherine@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