# Claytonia

Newsletter of the John Clayton Chapter, Virginia Native Plant Society

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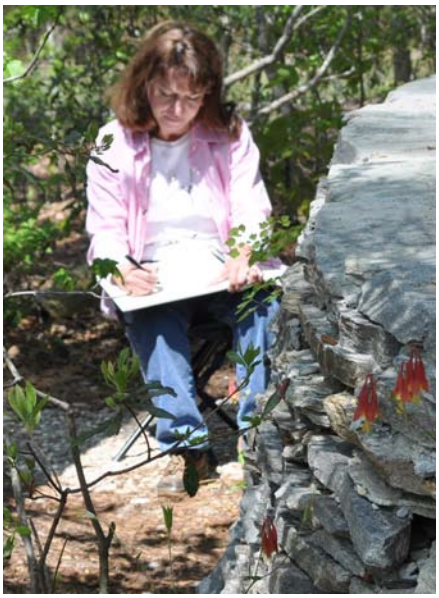
## Our July 19 Meeting: Linda Miller on "A History of Botanical Art—an Artist's Perspective."



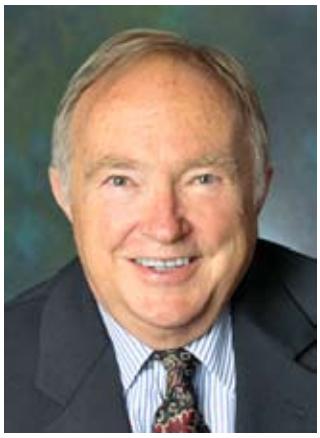
Linda Miller draws from life.

Williamsburg's own professional botanical artist, Linda Miller, will be the speaker at our next meeting on Thursday, July 19. She will start with the first drawings of plants, discuss the first printed books depicting woodcut illustrations of medicinal herbs, describe the artists of the Age of Discovery, and tell how today's contemporary artists are creating new works to help educate the public on native endangered plants and pollinators.

A full-time artist for 5 years, Linda left a marketing career in telecommunications for her creative journey to artistically depict the natural world that she was so close to in her childhood. She draws what she sees on her walks in nature on wildlife trails and in gardens. Her work is on exhibit at the Newtown Art Gallery in Williamsburg and at The Gallery at York Hall in Yorktown. At the Elizabethan Gardens, Manteo, NC, she is the first Artist in Residence for 2011–2013, and her drawings are now featured in the garden's Gate House gift shop.

Linda is a member of the American Society of Botanical Artists, the Botanical Art Society of the National Capital Region, the Virginia Watercolor Society, and the Historic Rivers Chapter of the Virginia Master Naturalists.

The meeting begins at **6:45 pm** at the **Yorktown Public Library** at the intersection of Battle Road and Route 17 in Yorktown. **See you there!**



## From the Interim President: Join the 2013 Plant Sale Team!

The JCC plant sale we just completed was our biggest yet and most successful to date. We have given ourselves a major challenge for the 2013 plant sale to be an equal with our 2012 event. The 2012 plant sale co-chairs have chaired this committee for 4 years and have asked that new leadership do this job.

Over the last 6 weeks, I've worked with Joan and Lucile to reconfigure how we staff the plant sale. We've come up with a Plant Sale Team committee structure that has 8 subcommittees reporting to a Plant Sale Committee Chair. By doing this, the workload is spread across nine individuals for a less demanding time and effort commitment.

For the new Plant Sale Team structure to work, we still need JCC members to step forward for the (1) committee chair; (2) facility and equipment coordinator; and (3) publicity. We have JCC members who have agreed to do: Plant experts at the information booth; head cashier; sale day volunteer coordinator; transportation; potting party coordinator; and internal JCC communications coordinator.

Please understand the plant sale is the only fund raiser the JCC sponsors to obtain funds for enabling elementary and middle school students to attend Nature Camp. The community has come to expect a wide selection of native plants, shrubs, and trees available each spring and to purchase them at a reasonable price. At the 2012 sale, our plant experts were very busy advising on plant selection.

So, if you are one of the JCC members who has not come forward to be part of the 2013 Plant Sale Team, I would like to hear from you. You can reach me at *eplotes@msn.com* or (757) 903-4599. We need to get this team in place and then take the summer off and enjoy our own gardens.

**Bruce Hill**

## New members

Welcome, new members **Chelsea Clifford** and **Kathleen Gierlak**, both of Gloucester, and **Anne Hart**, **Gale Roberts**, **Jo Solomon** and **Lisa Steele**, all of Williamsburg.

## Beginning Mycology: How Green Plants and Fungi Are Interrelated" was the topic at our May meeting

Our speaker **Tom Teeples** began by explaining that although his career was spent working in computing, he has always been interested in the natural world. While living in Northern Virginia, he took some courses available through the Smithsonian, one of which included a mushroom walk. That walk inspired him to continue learning about fungi, and eventually he became a charter member of the Mushroom Association of Washington.

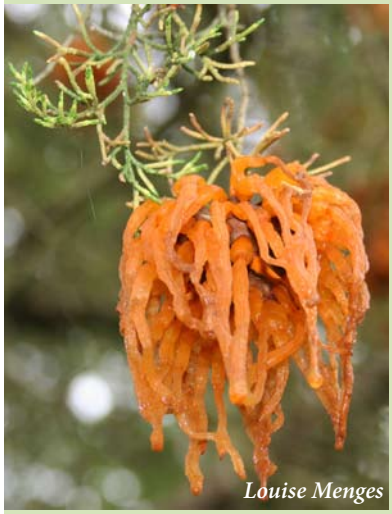
Tom showed photos of many kinds of fungi and explained how to collect them and take spore prints to aid in their identification. He also explained the architecture of their gills, pores or other means of distributing the tiny spores, and we watched a 3-minute video of spores discharging from a gilled mushroom at what is reported to be one of the fastest speeds achievable in nature.

Here are a few of the things we learned from his talk:

- Fungi have been given their own kingdom in the plant world; there are some 300,000 known green plants and an estimated ***1.5 million*** fungi. In some ways fungi are more closely related to animals than to plants, with cell walls made of chitin (like insect exoskeletons and our fingernails) instead of cellulose.
- The visible portion of a mushroom is just a fruiting body; most of the plant is composed of an underground web of mycelium, which can be quite extensive and support many fruiting bodies. DNA testing determined that a single mycelium in Oregon occupied 2200 acres.
- Most fungi are saprophytic (live off dead matter), but a few are parasitic on living plants.
- Many fungi have symbiotic relationships with the roots of other plants; in fact, 80% of green plants have such a relationship with a fungus in the ground, an arrangement dating back some 400 million years.
- Fungus spores are everywhere in the air around us, even in the clouds. It is estimated that Earth's atmosphere contains 55 million tons of spores!

Tom Teeples gave us a fascinating glimpse into a perhaps under-appreciated part of our natural world. **Louise Menges**







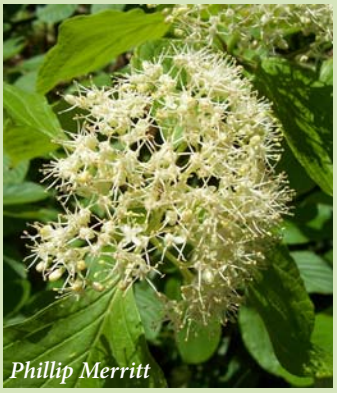
Fruiting bodies of fungi take many shapes. From top:
a cup fungus growing on mulch;
a puffball;
the orange fingers of cedar-apple rust;
a white jelly fungus on decaying wood.

## Recent JCC field trips…

### May 26: Native Plant Walk at Mary Turnbull's home

**Mary Turnbull**, Secretary of our Chapter, led a plant walk through her wooded garden in The Woods area of Williamsburg. She had labeled some 54 native plants, and provided an accompanying list of plants for the 40 attendees.

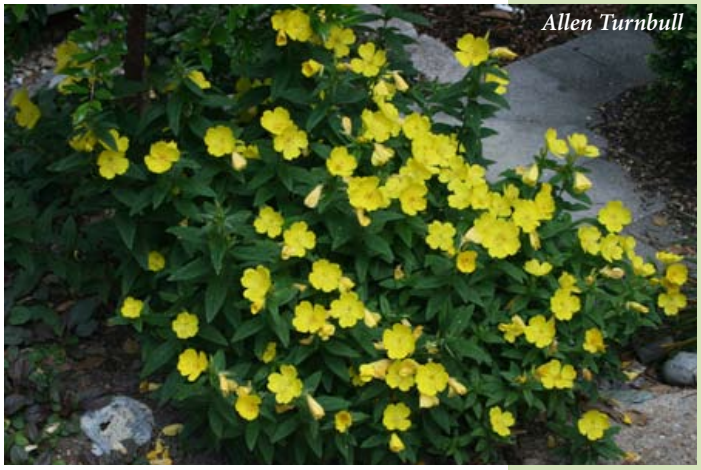

Mary's visitors wend their way through her gardens.



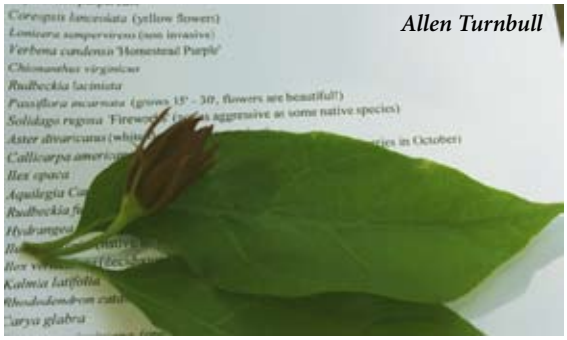

Alternate-leaf Dogwood

The feature of the walk was the Alternate-leaf Dogwood *(Cornus alternifolia)*, which is infrequently found on the Coastal Plain. The garden demonstrates how vegetables, native plants, trees, shrubs and introduced plants can be intermingled to provide an outstanding garden. The hilly terrain down to the creek and the tree canopy created a fantastic image as guests made their way along the many paths that wandered through the plantings. Alan Turnbull served refreshments at the end of the plant walk.

**Claire Sink**



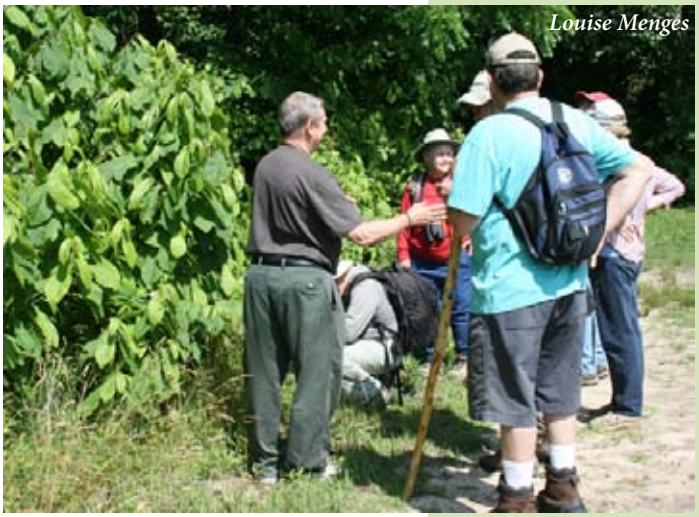

Sundrops *(Oenothera fruticosa)* were in bloom.



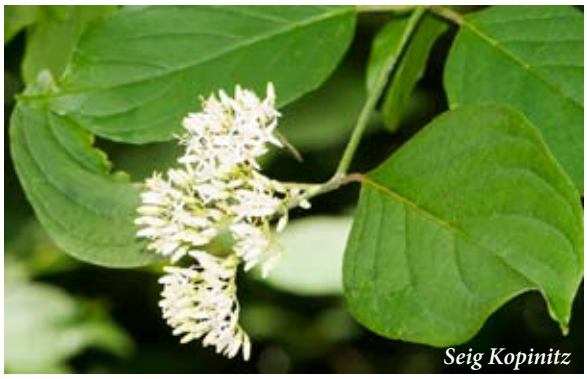

A Sweetshrub blossom *(Calycanthus floridus)*, lying atop a copy of the list of natives Mary provided participants.

## June 2: A trip to Beaverdam Park in Gloucester

**Pat Baldwin** and **Edie Bradbury** were the leaders on this excursion along the far side of Beaverdam Reservoir in Gloucester County. It was a beautiful day, and the paths we followed took us through the woods surrounding the reservoir as well as into open areas alongside cultivated fields. There was a profusion of things to see everywhere!

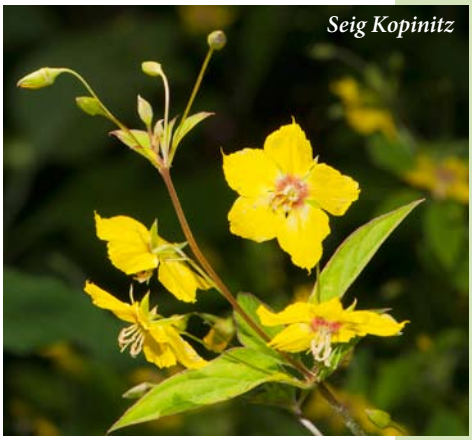



Pat Baldwin talks to the group as Seig kneels to get a photo. Left, pawpaws are growing thickly along the wood's edge.

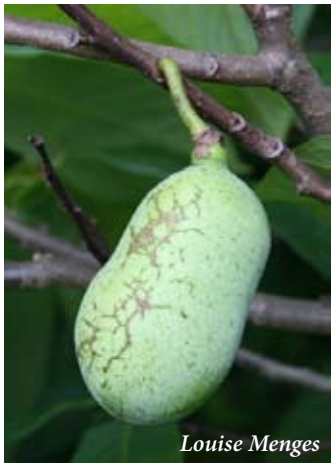



Silky Dogwood blooms.

Silky Dogwood *(Cornus amomum)* was in bloom, as were Wild Petunia *(Ruellia caroliniensis)* and Indian Hemp *(Apocynum cannabinum)*. Also blooming were Fringed Loosestrife *(Lysimachia ciliata)*, Orange Coneflower (*Rudbeckia fulgida)*, Horsenettle *(Solanum carolinense)* and Common Milkweed *(Asclepias syriaca)*, whose fragrant blossoms we could smell before we spotted the source.



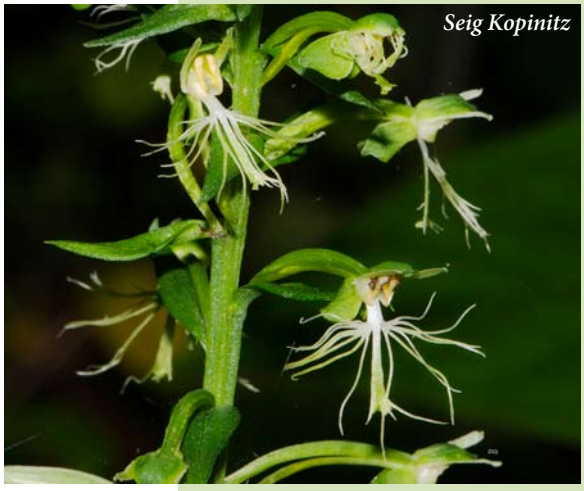

Fringed Loosestrife




An unripe Pawpaw fruit.

We identified many other plants and trees, but the *pièce de résistance* was the sight of several Green Fringed Orchids *(Platanthera lacera)*, which most of us had never seen before, one growing in the open near the wood's edge and another group beside a shady path within the woods.

**Louise Menges**




The well-named Green Fringed Orchid looks like it's having a bad hair day!

### June 23 visit to College Landing Park

About 16 people joined **Gus Hall** and **Helen Hamilton** for a walk at College Landing Park. Helen reports identifying more than 80 plants, among them the aquatics Pickerel Weed, Arrow Arum and Bull-tongued Arrowhead. Seashore Mallow was blooming, and the leaders pointed out the toxic Water Hemlock and discussed invasives present such as Japanese Honeysuckle, Beefsteak Plant, Stiltgrass, English Ivy and Multiflora Rose.

College Landing walk participants stop for a photo.

## Field trips scheduled for July and August…

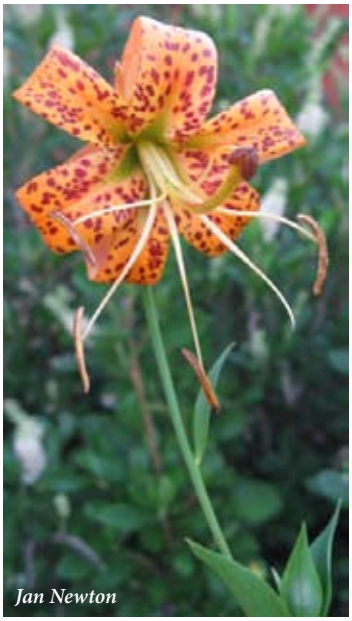
### Saturday, July 7 at 9 am: A walk on the Wahrani Trail

**Jan Newton** and **Jerre Johnson** (our Chapter's resident geologist) will combine native plants and geology on this walk along the wooded paths of the Wahrani Trail near West Point, VA.
Contact Jan at 757/566-3646 or *jnewton110@cox.net* for directions and to register.

### Tuesday, July 10 at 6 pm: Stonehouse Elementary Habit Garden walk

Jan Newton will lead a walk through the Stonehouse Habitat, which features more than 80 species of Virginia native plants, is a certified wildlife habitat and serves as an outdoor classroom for Stonehouse students and the community. Among the many blooming plants expect to see Blue Vervain, Tall Coreopsis, Passionflower, White Obedient Plant, Brown-eyed Susan, Bee-balm, and, if we are lucky, Turk's Cap Lily. The Stonehouse Habitat is located at 3651 Rochambeau Dr., Williamsburg, VA 23188.

Please register by contacting Jan Newton at *jnewton110@cox.net* or 757/566-3646.



Turk's Cap Lily *(Lilium superbum)* blooming in the Habitat Garden.

### Saturday, August 4 at 9 am: A walk through William & Mary's Plant Refuge

W & M Herbarium Curator **Beth Chambers** will lead a native plant walk through **William and Mary's Plant Refuge** located on campus near Crim Dell. Meet at the Refuge amphitheater; parking is free on Landrum Drive and other nearby campus parking areas on weekends.

For more info and to register, contact Beth Chambers at 757/345-0176.

## A report from Claire Sink on a State VNPS workshop on Virginia's ecosystems

Four speakers addressed major ecosystems and provided an interpretive context for native plant information at the VA Native Plant Society winter workshop on Virginia's Ecosystems: "Fields, Forests, and Freshwater," at the University of Richmond, March 10, 2012. The speakers included Martin Ogle, Mike Hayslett, Tom Dierauf, and Benjamin Tracy. Here are brief excerpts from their presentations.

### Keynoter Martin Ogle, Arlington, VA: The Big Picture—Understanding Virginia's Ecosystems

Ogle is the Chief Naturalist for the Potomac Overlook Regional Park of the Northern Virginia Regional Park Authority. Some of Ogle's major points are:

- Ecology is defined as organisms, the environment, and their interrelationships.
- Human land use affects ecology, changes the nature of the planet and changes the tissues of the planet. He compared the structure of the earth ecosystem to the systems of the human body.
- Fire has a significant role in changing ecology; fire is major part of the earth's living system.
- Oxygen levels are affected by fire, respiration and rusting. Yet, oxygen levels remain constant over vast periods of time. Forest fires help keep oxygen levels steady.
- Different vegetation burns differently and affects the carbon dioxide/oxygen balances differently.
- When trees fall and rot, all carbon is dissipated; some carbon is sequestered. "Carbon sinks" are a living process, i.e., differential carbon uptake is important in the evolution of humans.
- As green economics, Ogle suggested alternatives to growth as a methodology for a living system that affects interactions between humans and the environment.

- He has authored a chapter in *Gaia in Turmoil* entitled: "Gaia Theory: Model and Metaphor for the 21st Century."

### Mike Hayslett: The Ecology of Flowery Waters

He is the naturalist-in-residence at Sweet Briar College and adjunct professor of environmental science, Lynchburg College. Hayslett also directs Virginia's Vernal Pools Program that promotes the conservation of seasonal wetlands and their distinctive biota. A few of Hayslett's major points are:

- Specific plant communities are found in fresh water wetlands in interior Virginia. Seasonal wetlands, forested wetlands (swamps) versus marshes, Southern Appalachian bogs, and sinkhole wetlands in karst landscapes in western and northern Virginia all have vernal pools.
- In the last two centuries, the State has lost 50% of these wetlands.
- Protection of wetlands is very recent in America as the government no longer pays to preserve wetlands.
- Wetland classification is tricky; vernal pools have seasonal hydrology and are isolated; farms have changed their concept of water, which supports "obligate" biota.
- No State laws prohibit the removal of the forest canopy.
- Most fauna associated with wetlands are terrestrial, not aquatic. They come to the wetlands to mate and raise their young, so they remain in the wetland for a few weeks.
- VA's Department of Environmental Quality protects the State's wetlands via water protection programs. Habitat in the wetlands is important.
- Leaves, twigs, and branches all influence the environmental chemistry in these wetlands and their associated vernal pools.
- In wetlands, plants control the water as to what fauna live there. For example, if there is no shade in March to protect the water and there is no tree canopy, trees will drink up the water in vernal pools when they leaf out. Hence, plants control the life cycles of any associated animals.

### Tom Dierauf: Forests and Trees—Ecology and History

He served as Chief of Research, VA Division of Forestry until 1995, when he retired. Since then, he leads plant surveys in Albemarle County and teaches forest ecology and management for the State Master Naturalist Program. Highlights from his talk include:

- Native Americans set many forest fires.
- Three groups of trees dominated forests in Virginia when Europeans arrived: oaks, pines, and American chestnuts.

- Some eight species of pines grow in the State.
- Pines are a fire-dependent species with abandoned sites being ideal.
- Pine stands are replaced by hardwood stands.
- In 1940, the U.S. Forest Service conducted its first survey of pine trees.
- For oaks, understories are denser than in colonial times.
- Red maples smother oaks in the understory; oaks grow slowly in shady understories.
- Birds and animals eat the acorns; squirrels and blue jays disperse acorns.
- Oaks survive fires better than shade tolerant species; beech is easily killed by fires.
- Deer love to eat oak seedlings.
- Today, red maple is the most abundant hardwood tree in the State.

### Dr. Benjamin Tracy: The Importance of Native Grasses

He is associate professor of grassland ecosystem management at Virginia Tech. One of his long-term research goals is to find methods to optimize plant diversity in agricultural systems to improve productivity and environmental quality. Some of his key points are:

- In the State, there are over 1 million acres of pastureland; however, Virginia does not have extensive grasslands.
- Some 40 percent of the earth's terrestrial surface is covered by grasses.
- Cattle producers should use native grasses on their pastureland.
- Factors that influence grasses are climate, soils and disturbance.
- Grasses grow better with moderate disturbance.
- Natural grasslands in the State are: dune and maritime grasslands that are dominated by cord grass. Fort Pickett, near Blackstone, VA, has native prairie grasses.
- Warm-season grasses include major tall grass species: little bluestem, eastern gamagrass, Indian grass, big bluestem and switch grass.
- Recommends little bluestem and Indian grass for residential uses as ornamental grasses.
- Native grasses are very drought tolerant and have extensive root systems that help sequester carbon from the atmosphere.
- In Virginia, all lawn grasses are introduced species with tall fescue being the most common.

**Claire Sink**

## Climbing Hydrangea: Wildflower of the Month for June 2012

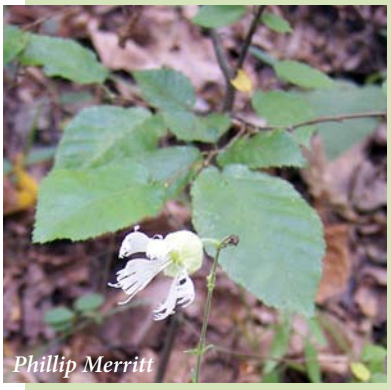

Phillip Merritt

Climbing Hydrangea *(Decumaria barbara)*, a handsome woody vine, needs a climbing surface, without which it does not produce flowers. Like Trumpet Creeper and Climbing Euonymus, adventitious roots readily cling to tree bark, stone walls and fences. A high climber, its stems can reach over 60 feet in height. The opposite leaves are oval, usually toothed, glossy above, and deciduous. Blooming May through June, the numerous fragrant white flowers bear 7 to 10 petals and 20 to 30 stamens. Many-seeded fruit capsules,, top-shaped and strongly ribbed, appear July through October. In the winter, the vine is often conspicuous with its clusters of dark fruits hanging from a bare stem clinging high on the trunk of a tree.

Climbing Hydrangea prefers partial shade in swamps, wet woods and moist forests. Occurring only in the southeast counties of Virginia, this vine extends to Florida, west to Louisiana and Texas, and to some mountainous habitats of South Carolina and Tennessee.

A member of the Family Hydrangeaceae, the genus *Decumaria* has only two species, Climbing Hydrangea, which is native to eastern North America, and another species of eastern Asia. Such a startling distribution, seen also in hickories, tulip-trees, sassafras and many other plants, reflects massive geological and climatic changes and extinctions over millions of years. **Helen Hamilton**

## Starry Campion: July 2012 Wildflower of the Month


Phillip Merritt

The flowers of this native perennial are quite beautiful, with deeply fringed white petals flaring from a greenish bell-shaped tube. Blooming July–September, each one-inch flower has 5 petals in clusters on tall slender stalks. Remaining open during the evening, night and early morning, they tend to close in bright sunlight.

The plant grows 2 to 3 feet tall on finely pubescent stems, unbranched or branched very little. Long, lance-shaped leaves are in whorls of 4 along in the middle of the stems, while the lower and upper leaves are opposite. The round central stem is hairless to densely pubescent and somewhat swollen at the base of the leaves, where it is often reddish purple.

The leaves of the introduced Bladder Campion *(S. vulgaris)* are opposite on glabrous stems and the 5 white petals are deeply notched but without fringes. The base of this introduced flower is papery, inflated and net-veined, suggesting a tiny melon.

Starry Campion grows in open woods and ranges from Massachusetts to North Dakota and south to Georgia and Texas. A native of Europe, Bladder Campion is now a common weed through much of North America. Both plants are widespread across Virginia.

The genus name, *Silene stellata*, comes from Silenus, a mythical drunken Greek covered with foam—some species of this genus have sticky secretions and are called Catchflies. A colonial botanist reported the use of Starry Campion for snakebite, suggested by the markings on the root, which are similar to the skin of a rattlesnake, but it has been found to be ineffective.

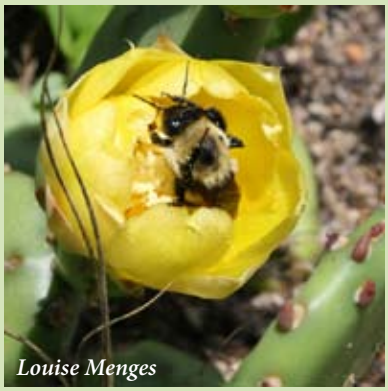
With no floral scent, the flowers are pollinated by moths and bumblebees as these insects take nectar from the flowers. Deer will probably avoid this plant, since the foliage and seeds contain saponins which are somewhat toxic to mammalian herbivores. **Helen Hamilton**

## From Dorothy Geyer: Conserving the bumble bee, an important pollinator

There's a huge overlap between bumble bees and native plant conservation, so I though you folks might like to know that the Xerces Society has just released a new publication, *Conserving Bumble Bees: Guidelines for Creating and Managing Habitat for America's Declining Pollinators*.

*Conserving Bumble Bees* outlines the important role bumble bees play in both agricultural and wild plant pollination, details the threats they face, and provides information on how land managers can create, restore, and enhance high quality habitat. Importantly, these guidelines describe how land managers can adapt current practices to be more in sync with the needs and lifecycle of bumble bees. They also include bumble bee identification guides to some common and imperiled species in each region and lists of important bumble bee plants.

To learn more, or to download a copy of the guidelines visit: http://www.xerces.org/bumblebees/guidelines/ **Dorothy Geyer**


*Louise Menges*

A bumble bee hard at work on the job.

### Here is some more info about bumble bees Louise copied from Xerces' website:

Bumble bees, key pollinators of crops and wildflowers across the country and essential for a healthy environment, are declining at an alarming rate. Bee biologists discovered that several previously common species are now absent from much of their former territory. Creating, protecting and restoring habitat is a very important way to conserve the populations of bees that remain.

The causes of these declines are not fully understood, but likely playing a role are: loss or fragmentation of habitat, pesticide use, overgrazing, competition with honey bees, climate change, low genetic diversity, and perhaps most significant of all, the introduction of nonnative pathogens.

Regardless of the ultimate cause of bumble bee declines, surviving populations need high quality habitat to persist. Protecting, restoring, enhancing, and creating new bumble bee habitat is the best way to conserve populations of these indispensable animals and hopefully reverse population trends. *Conserving Bumble Bees* includes sections on the important role these animals play in both agricultural and wild plant pollination, details the threats they face, and provides information on creating, restoring, and managing high quality habitat. Importantly, these guidelines also describe how land managers can alter current practices to be more in sync with the needs and lifecycle of bumble bees. They also include regional bumble bee identification guides and lists of important bumble bee plants by region.

**Importance of bumble bees**

Bumble bees are important pollinators of wild flowering plants and crops. They are generalist foragers, and thus do not depend on any one flower type. However, some plants rely on bumble bees to achieve pollination. Loss of bumble bees can have far ranging ecological impacts due to their role as pollinators. In Britain and the Netherlands, where multiple pollinator species have gone extinct, there is evidence of a decline in the abundance of insect pollinated plants.

Bumble bees are able to fly in cooler temperatures and lower light levels than many other bees, which makes them excellent crop pollinators. They also perform a behavior called "buzz pollination," in which the bee grabs the pollen producing structure of the flower in her jaws and vibrates her wing muscles. This causes vibrations that dislodge pollen from the flower. Some plants, including tomatoes, peppers, and cranberries, benefit from buzz pollination.

For more information, including how to participate in our citizen science efforts to help conserve bumble bees, please visit www.xerces.org/bumblebees.

## Slate of JCC officers for 2013–2014

The Nominating Committee (Libbey Oliver, Cynthia Long, Donna Ware, Joan Etchberger, and Claire Sink) is announcing its slate of proposed candidates for John Clayton Chapter officers for 2013–2014. They are:

| | |
|---|---|
| **President** | **Bruce Hill** |
| **Vice President** | **Lucile Kossodo** |
| **Secretary** | **Cortney Langley** |
| **Treasurer** | **Phyllis Putnam** |

The candidate for Vice President is to complete Bruce Hill's term and therefore will serve for one year, ending October 31, 2013.

The terms for President, Secretary, and Treasurer candidates are from November 1, 2012 through October 31, 2014.

Of course, nominations can be also made from the floor at our chapter's annual meeting on September 20, 2012.

## Calendar

| | |
|---|---|
| **Saturday, July 7** | **9 am: Jan Newton** and **Jerre Johnson** will lead a walk on the **Wahrani Trail**, near West Point. *(See Page 6.)*<br>Contact Jan at 757/566-3646 or *jnewton110@cox.net* for directions and to register. |
| **Tuesday, July 10** | **6am: Jan Newton** will lead a tour of Stonehouse Elementary's **Habitat Garden**. *(See Page 6.)*<br>Contact Jan at 757/566-3646 or *jnewton110@cox.net* for more info and to register. |
| **Thursday, July 19** | **6:45–8:45 pm: Native John Clayton Chapter meeting at Yorktown Public Library: Linda Miller** on **"A History of Botanical Art—An Artist's Perspective".** *(See Page 1.)*<br>The Library is located at the intersection of Battle Rd. and Rt. 17 in Yorktown. |
| **Saturday, Aug. 4** | **9 am: Beth Chambers, W&M Herbarium Curator**, will lead a plant walk through **William & Mary's Plant Refuge** on campus near Crim Dell. *(See Page 7.)*<br>Contact Beth at 757/345-0176 for more information and to register. |

**There are more walks in the works which did not make this issue,** so keep a lookout for announcements about additional walks on our website **at www.claytonvnps.org.**

## 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