



THE NATURALIST

The monthly newsletter of the Historic Rivers Chapter

Virginia Master Naturalist Program

<http://historicrivers.org>

December 2015

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President's Message

by Shirley Devan

I wish you a holiday filled with the wonder of our natural world. Take a pause from frantic December festivities and explore our area's parks and wild spots. Those few minutes could be just what you need to bring calm to a frazzled time.

Please consider helping out with our local Christmas Bird Count Sunday, December 20. Use this opportunity to contribute to a meaningful citizen science project even if you can only count birds in your yard. Even better, join a team in the field for a full day or half day. Great fun!



Notes from the Board

All meetings of the Board of Directors are open to members.

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Citizen Science in Action Winterizing Bluebird Houses by Judy Jones

Pictured are Kathy Cross and Bill Wallace (with Judy Jones behind the camera) out at the Chickahominy Riverfront Park. The team's task was to clean out the bluebird boxes and then close them off (with that lovely bright pink duct tape) to prevent birds from roosting in them over the winter. This is part of an experimental program in which four trails are winterized differently....New Quarter Park's trail had boxes that were cleaned, the top air holes were closed off, and then the floors of the boxes were lined with lovely pine straw to encourage warm, safe winter roosting. As 'control trails', both Ford's Colony and Freedom Park Trail's boxes were cleaned and then left alone. The Chick's boxes were cleaned and then the entry holes were closed off to hopefully encourage the birds to roost in forested areas, with greater protection from wind and cold. There is a school of thought that the birds fare better in the winter in natural roosts in the forest. A second theory is also that House Sparrows won't be able to roost in the boxes over the winter, preventing them from bonding with boxes and attacking bluebirds wanting to nest there in the spring.

So, we'll see how it goes. The boxes will be checked weekly and the duct tape will be removed in late February or early March to allow bluebirds opportunities to select them for nesting sites. Hopefully, we'll see which trail offers better protection for bluebirds in the winter by looking at breeding success in the next season.



Glycerinate Fall Leaves by Roger Gosden

Here's a cheapskate suggestion for decorating the table at Thanksgiving or giving at Christmas to people who have everything. Fall leaves!

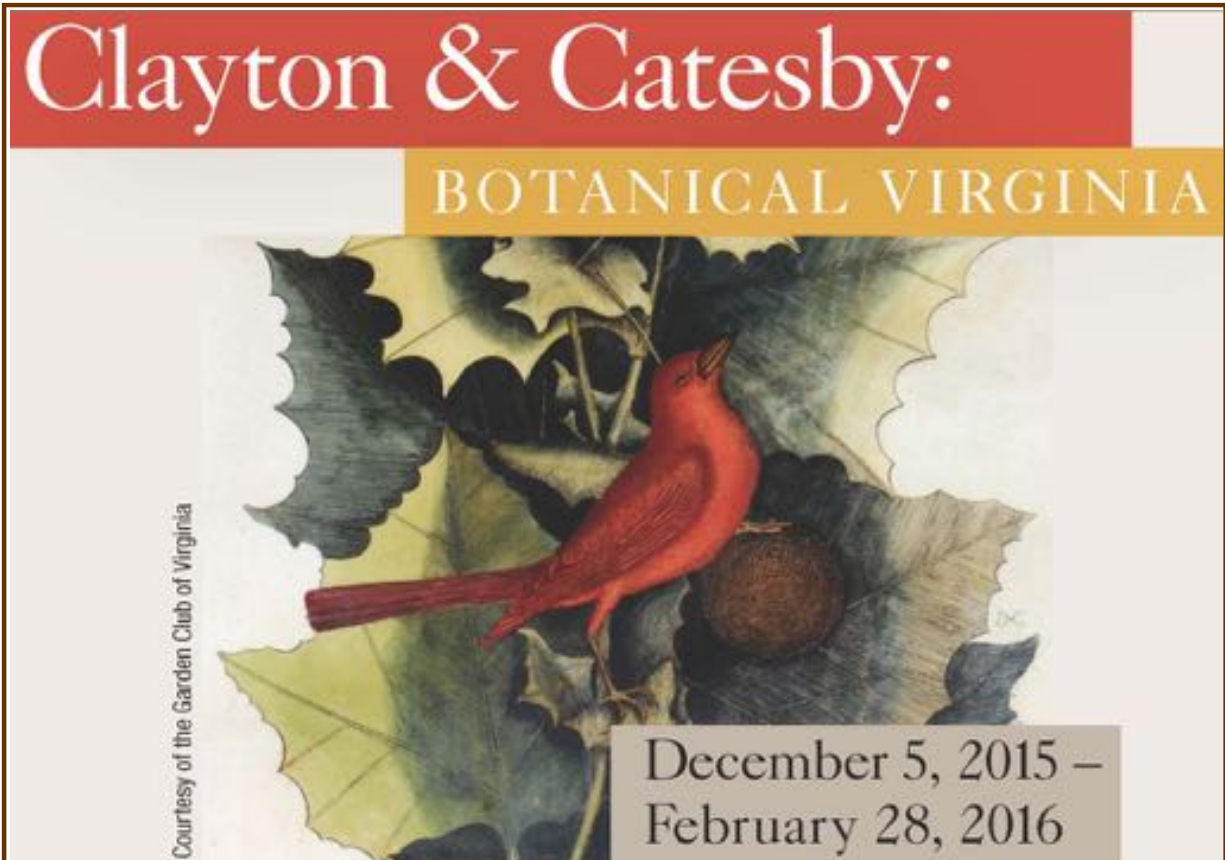
While other families in the neighborhood are filling bags with leaves from their yard for collectors to cart away to the dump, I am spreading them evenly into the flower beds to save the cost of mulch, but I bring the most colorful and perfect specimens indoors. Southern red oak, tulip poplar, dogwood, beech, and sweet gum—all changing through a spectrum of bright colors, and each keeping to its peculiar schedule.

Wouldn't they look great in a bowl on the festive table if it was possible to stop them curling, cracking, and crumbling? It is, in the twinkling of an eye.

- Dilute a bottle of glycerin (glycerol) from the pharmacy with tap water in the ratio 1:2
- Pour the fluid into a tray for soaking the leaves
- Flatten the leaves with a weight (like a matching tray)
- Allow them to soak for a week or so
- Pour off the fluid and dry the leaves on paper towels
- Voila!



The glycerin helps to preserve the leaves, and makes them supple. They should last until springtime when delicate, lime-green beech leaves attached to their branches can be gathered for glycerin treatment. That makes a cheerful decoration for the fireplace when it becomes vacant after the winter, and is a recipe I learned from a country gardener. Mum's the word.



Documentation of native Virginia plants by naturalist Mark Catesby and botanist John Clayton in the 18th century and the Flora of Virginia Project in the 21st century is explored in this three-month exhibit. Seventeen period engravings of Catesby’s 18th-century watercolor paintings of flora and fauna, on loan from the Garden Club of Virginia, are exhibited alongside a 1762 edition of *Flora Virginica*, based on Clayton’s work.

A collection of public programs related to the “Botanical Virginia” theme and will be presented during the period of the exhibit. Please be sure to allow extra time to visit the permanent exhibition galleries, view Jamestown Settlement’s introductory film, *1607: A Nation Takes Root*, see the “Botanical Virginia” section in the gift shop and visit the Jamestown Settlement Café.



Route 31 South
Williamsburg, VA
(757)253-4838

Jamestown Settlement and the Yorktown Victory Center, transitioning to American Revolution Museum at Yorktown, offer *free admission for residents of James City County, York County and the City of Williamsburg, including College of William & Mary students*. Virginia residents can purchase an American Heritage Annual Pass online for the same price as the one-time-admission combination ticket. Proof of residency required.

Jamestown Settlement admission is \$16.75 for adults and \$7.75 for ages 6 through 12 (2016: \$17.00, \$8.00 ages 6-12). A combination ticket to both museums is \$21.00 for adults and \$10.50 for ages 6-12 (2016: \$21.25, \$10.75 ages 6-12).

www.historyisfun.org

“Botanical Virginia” Public Programs

Public Programs Free with Admission

Tours: December 10, January 5 & 19, February 2

- ⊗ 2:00 p.m. “Through the Eyes of Catesby,” a one-hour Jamestown Settlement outdoor guided tour focusing on the flora and fauna depicted in Catesby’s watercolors conducted by the Jamestown-Yorktown Foundation Landscape & Nutrient Grounds Specialist
- ⊗ 3:30 p.m. “Clayton & Catesby: Botanical Virginia” 45-minute exhibit tour, conducted by a Historic Rivers Chapter Virginia Master Naturalist and Jamestown-Yorktown Foundation tour guide.

Lectures: Jamestown Settlement’s Robins Foundation Theater, 4:30 p.m.

- ⊗ **Thursday, December 10** – “Fantastic Voyages: Plants of the Virginia Colony,” presented by Marion Blois Lobstein, contributor to *Flora of Virginia*
- ⊗ **Tuesday, January 5** – “Illustrating the *Flora of Virginia*,” presented by Lara Call Gastinger, lead illustrator of *Flora of Virginia*
- ⊗ **Tuesday, January 19** – “From Clayton’s *Flora Virginica* to the Late 20th Century,” presented by Dr. Donna M.E. Ware, College of William and Mary research associate professor of biology and curator emerita
- ⊗ **Tuesday, February 2** – “Wildflowers and Grasses on Virginia’s Coastal Plain,” presented by Helen Hamilton, John Clayton Chapter of Virginia Native Plant Society past president

Public Programs offered for an Additional Fee

Workshops: January 14 & 28, February 25

10 a.m. – 2 p.m. and start in the Robert V. Hatcher, Jr., Rotunda at Jamestown Settlement.

- ⊗ **Thursday, January 14** – “Learning to Use Pen to Illustrate the *Flora of Virginia*,” instructed by Lara Call Gastinger
- ⊗ **Thursday, January 28** – “Nature Journaling,” instructed by Betty Gatewood, educator, nature journalist and watercolorist.
- ⊗ **Thursday, February 25** – “Naked Tree Walk,” presented by Dr. Stewart Ware, College of William and Mary professor of biology emeritus

Advance reservations are required for the 10 a.m. to 2 p.m. workshops. [Register online](#) or call (757) 253-4939. Cost is \$45 per workshop and includes lunch. Members of Jamestown-Yorktown Foundation, Inc., Annual Fund gift clubs (donors of \$100 or more) receive a discount and can call (757) 253-4139 or email giving@jyf.virginia.gov for a code to use in online registration.

“Botanical Virginia” Exclusive Private Tours

Join our guide, a member of the Historic Rivers Chapter of the Virginia Master Naturalist Program, for a captivating two-and-a-half-hour tour revealing how the plants found in this part of Virginia were used for food, medicine, ritual and trade well before the arrival of the British. Starting with a revealing look at the truth behind the museum’s latest exhibit, “Clayton and Catesby: Botanical Virginia,” they will guide you on a hands-on tour of a re-created Powhatan village, 17th-century fort and the full-size replica ships, explaining how plants helped both the Powhatan Indians survive and the British colony thrive. Choose one of the options below to book your exclusive private tour.

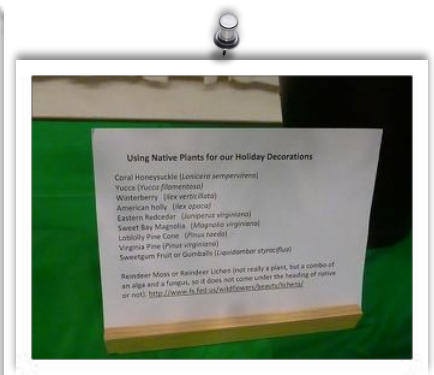
“Tour with Your Friends,” available December 17, 2015 through February 28, 2016. Choose your time and date. Tours are limited to 14 people per party and subject to availability. Advance reservations are required by calling (888) 868-7593 toll-free or (757) 253-4939 Monday through Friday, 9 a.m. to 5 p.m. Cost is \$145 per party plus Jamestown Settlement admission.

“Meet New Friends” on Saturday, January 16 or February 13, from 10:00 a.m. to 12:30 p.m. Upgrade your Jamestown Settlement admission ticket to include this tour for \$20.00. [Purchase Online.](#)

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12.3.2015

2015 HRC Holiday Party
by The Host Committee



Many thanks the gang that made it happen!



Notes From The Wild Side December 2015

"Sex & the Single Snake"

Ramblin Clyde

Now that I have gotten your attention I will tell you that I journeyed to God's Three Acres (G3A) one winter day in February of 2014. I was hoping to capture a snake for a series of Zoo visits to Grafton-Bethel ES for the children to interact with. My wild life notes of G3A over the past 7 years indicated there was an outside



chance of finding one, but the ground was so cold the chance of uncovering a comatose reptile wasn't very good. I searched for about an hour in the sunniest areas I could find. Nada. On my way back I went to turn over a small log almost completely covered by leaves. Imagine my delight when I spotted a female Earth Snake sunning herself among the leaves. After I captured her I started to pull the leaves away from the log when to my surprise (and his) I uncovered her male suitor right under the spot where she was lying. I guess the 70 degree air temp must have started her pheromones to be released. So now the class had a pretty pair to admire.

Since I had been invited to bring the Zoo to a local HS Ecology class the following week I decided to keep the prenuptial pair for the visit. Now I had to decide how to keep the attention of 18 "cool" Senior High Schoolers. I stole a page from our Dr. Art Evans lecture about amorous arthropods "Lust In The Dust". With the teacher's approval I interwove the mating habits of the Zoo creatures throughout the presentation and had their undivided attention. I titled my visit "Everything you wanted to know about the Birds and the Bees but was afraid to ask".

Some of the oddities that titillated them and got their attention were:



Millipedes – They carry their reproduce organs in their heads which gives a whole new meaning to the phrase "butting heads".

Slugs, snails, and worms are hermaphroditic, i.e. they have both male and female sex organs in the same individual

Turtles – the "dimple" in the plastron of the male Box Turtle wasn't a mystery after some discussion and ideas why.



The following is from Google and contains graphic material. Apophallation:



Apophallation is a commonly seen practice among many slugs. In apophallating species, the penis curls like a corkscrew and during mating, it often becomes entangled in the males genitalia. Apophallation allows the slugs to separate themselves by one or both chewing off the other's penis. Once its penis has been removed, the slug is still able to mate using only the female parts of its reproductive system.

Worms operate in the same way mating on top of the soil usually at night as they are very vulnerable to predation during the process.



Mantises — The female mates only once and is pregnant the rest of her short life. She will lay egg masses in accordance to the availability of food. My Praying Mantis “Amen” for instance laid two egg masses. During copulation the female occasionally will turn cannibalistic and will bite off the head of her suitor. His body continues the sperm transfer and then is a nuptial meal for the female. Sorta like the Timex wrist watch commercial - “It takes a licking but keeps on ticking”.

Courtesy of Ms. Kelsey Abbot MS (Marine Biology) excerpt taken from her blog <https://maukamakai.wordpress.com/2012/05/29/word-of-the-day-apophallation/>

Spiders - The term apophallation seems to refer to slugs specifically, but they're not the only animals to deliberately amputate male sexual organs. Orb-web spiders (*Nephilengys malabarensis*) also dabble in a little Bobbitism—and in their case, it's a life-saving maneuver. Male orb-web spiders, much like most males in the animal kingdom, want to produce as many offspring as possible. To do this, the male orb-web spider will have to mate with a female orb-web spider—and that's not as pleasant as it sounds (for the male). The mating is short and when the female wants to end the copulatory event, she'll start to **eat her mate**. BUT, if the male orb-web spider detaches himself from his palp (the spider equivalent of a penis), he can dash out of the female's reach while his palp remains in his mate's genital opening. By turning himself into a eunuch, the dude not only saves himself, he also maximizes his paternity. You'd think that once he ditched his palp the mating would be over, but it's not. The palp continues depositing sperm while the male is running away. In fact, this process (known as remote copulation) results in greater sperm transfer and therefore greater offspring production than the typical orb-web spider method of old-fashioned copulation and sexual cannibalism.

HISTORIC RIVERS CHAPTER

Eunuch-izing himself gives the male some other advantages as well. The abandoned palp plugs the female's genital opening, thus discouraging other males from mating and minimizing sperm competition. The female can remove the palp, however, making this roadblock technique only about 75% successful. Of course, to attempt to mate with the female, an intact male would have to get to her—and, with a eunuch guarding her web (from a safe distance), this is a difficult task. In lopping off his palps,* that wimpy (but crafty) male transforms into an aggressive equivalent of the Hulk who attacks any male who dares step onto his lady's web. Kralj-Fiser et al. found that eunuchs were significantly more aggressive, agile and all-around better fighters than intact males. And so he may be palp-less but he's alive and those baby spiders will all be his.



In March of 2014 I had the pleasure of showing off the Zoo critters at the York County Horticultural Extravaganza . I was telling some of the folks from Cohort 8 of the oddities I have encountered in my travels and readings and I

mentioned that in the dim past I raised tropical fish as a hobby. I was once a card carrying member of the Suburban Maryland Aquarium Society and I had come across one of the oddest pregnancies I had ever encountered. In the 1800s a German Family Physician who was also an amateur Naturalist devised an unique pregnancy test based on his observations of the mating ritual of a local fresh water fish called a Bitterling.

The Bitterling belongs to the minnow family and is a nondescript silver fish about 2-3 inches long. They lay their eggs in a fresh water mussel to develop. At breeding time the pair take turns nudging a mussel to the point it lies there with its mantle open. Now the female grows a fleshy ovipositor about 3 inches long. She v-e-r-y carefully inserts this into the mantle opening and lays her eggs. The male swims around her and when he sees the ovipositor he turns a bright red and releases sperm. The mussel draws in the sperm cloud which fertilizes the eggs. After a week the eggs hatch and the babies are as secure as money in a bank vault. The mussel keeps siphoning water and nutrients that the young fish feed on. When the babies grow big enough they swim out into the world. Note that mother and father Bitterlings have nothing to do with protecting and raising their brood.



The good Doctor set an aquarium in his office containing a pair of Bitterlings and a freshwater mussel. He poured in a quantity of urine from a suspected pregnant patient and watch to see if the fish would go through their mating ritual. The female would extrude her ovipositor and the male would turn bright red (Gentle Reader wouldn't you turn red?). Ergo his patient was pregnant. Unfortunately the test was not very reliable — lots of false negatives. The medical field soon discovered the pregnancy hormone and pregnancy tests soon gave way to the use of frogs, toads and finally rabbits in place of fish. Remember the phrase “ the rabbit died”?

Today we use very sensitive chemical test that detect the pregnancy hormone HCG (Human Chorionic Gonadotropin) — that is so sensitive

and accurate that it is almost the “morning after” test for pregnancy. I miss the old days of using rabbits as they were a great source for Hasenpfeffer.

The information about the Bitterling comes from [Exotic Aquarium Fishes](#) by Dr. William T. Innes.

It is interesting the strange paths that Naturalists walk down east of the Moon and west of the Sun.

Continuing Education Opportunities

Please check the Chapter website for more information (<http://www.historicroivers.org>). Workshop registration may be required ahead of time.

[New Year's Day Boardwalk Bird Show](#) - January 1, 2016 from 1:00 pm to 3:00 pm at Greensprings Trail Boardwalk

[\[CE\] WBC Pelagic Trip](#) - January 2, 2016 from 6:00 am to 4:00 pm at Lynnhaven Inlet, Virginia Beach, VA, USA

[\[CE\] HRBC Bird Walk](#) - January 3, 2016 from 7:00 am to 10:00 am at Newport News City Park

[\[CE\] "Clayton & Catesby: Botanical Virginia"— Public Programs Lectures](#) - January 5, 2016 from 4:30 pm to 5:30 pm at Jamestown Settlement's Robins Foundation Theater

[\[Class\] Ornithology](#) - January 5, 2016 from 6:00 pm to 9:00 pm

[\[CE\] Bird Walk at New Quarter Park](#) - January 9, 2016 from 8:00 am to 10:00 am at New Quarter Park, 1000 Lakeshead Dr, Williamsburg, VA 23185,

[\[Field Trip\] Forest Conservation & Management; Nature Hike](#) - January 9, 2016 from 9:00 am to 3:00 pm at New Kent Forestry Center, 11301 Pocahontas Trail, Providence Forge, VA 23140, United States

[\[CE\] Monthly meeting](#) - January 13, 2016 from 6:00 pm to 9:00 pm at JCC Library, 7770 Croaker Rd., Williamsburg

[\[CE\] "Clayton & Catesby: Botanical Virginia"— Public Programs Lectures](#) - January 14, 2016 from 9:00 am to 10:00 am at Jamestown Settlement, 2110 Jamestown Rd, Williamsburg, VA 23185, United States

[\[CE\] WBC Field Trip to Dutch Gap](#) - January 16, 2016 from 6:00 am to 12:00 pm at Chesterfield County, VA

[\[CE\] WBC Pelagic Trip](#) - January 16, 2016 from 6:00 am to 4:00 pm at Lynnhaven Inlet, Virginia Beach, VA, USA

[\[CE\] HRBC Bird Walk](#) - January 17, 2016 from 7:00 am to 10:00 am at Newport News City Park

[\[CE\] MG FREE Landscape For Life™ 'Train the Trainer' Webinar Series](#) - January 19, 2016 all day at Webinar series - first of series

[\[CE\] "Clayton & Catesby: Botanical Virginia"— Public Programs Lectures](#) - January 19, 2016 from 4:30 pm to 5:30 pm at Jamestown Settlement's Robins Foundation Theater

[\[CE\] WBC Monthly Meeting - Flycatchers in MD](#) - January 20, 2016 from 7:00 pm to 9:00 pm at College of William & Mary, Andrews Hall, Room 101

[CE] Sea Bird Pelagic Boat Trip - January 23, 2016 from 6:00 am to 5:00 pm at Lynnhaven Inlet, Virginia Beach, VA

[CE] WBC Bird Walk - January 23, 2016 from 7:00 am to 9:00 am at New Quarter Park, 1000 Lakeshead Dr., Williamsburg

[Field Trip] Macroinvertebrates; Woods in Winter - January 23, 2016 from 9:00 am to 3:00 pm at Freedom Park, 5537 Centerville Road, Williamsburg

[CE] “Clayton & Catesby: Botanical Virginia”— Public Programs Lectures - January 28, 2016 from 9:00 am to 10:00 am at Jamestown Settlement, 2110 Jamestown Rd, Williamsburg, VA 23185

[CE] “Clayton & Catesby: Botanical Virginia”— Public Programs Lectures - January 28, 2016 from 9:00 am to 10:00 am at Jamestown Settlement, 2110 Jamestown Rd, Williamsburg, VA 23185

[CE] “Clayton & Catesby: Botanical Virginia”— Public Programs Lectures - February 2, 2016 from 4:30 pm to 5:30 pm at Jamestown Settlement’s Robins Foundation Theater

[Class] Ecology Concepts - February 2, 2016 from 6:00 pm to 9:00 pm at JCC Human Services Building, 5249 Olde Towne Rd.

Naturalist Biography Group Presentations/Potluck Lunch - February 6, 2016 from 9:00 am to 2:00 pm at Freedom Park, 5537 Centerville Road

Mark your calendar!
Upcoming General Membership Meetings

January 13 (Wednesday) - Dr. Norman Fashing, William and Mary Professor of Biology, on spiders

February 10 (Wednesday) – Dr. Matt Blazek, Virginia Commonwealth University, on sturgeons

March 9 (Wednesday) – Cohort X Graduation

April 13 (Wednesday) – Wes Hudson, PhD candidate, Va. Institute of Marine Science, wetland tree research at New Kent Forestry

Meetings start at 6pm and are in the Kitzynger Room of the James City County Library on Croaker Road in Norge.