



VIRGINIA NATIVE
PLANT SOCIETY

2018 Annual Meeting & Conference



Hosted by
John Clayton
Chapter

October 5-7, 2018

William & Mary

School of Education



elcome to the 2018 Virginia Native Plant Society's Annual Meeting and Confer-

ence! We look forward to seeing you the weekend of Oct 5th, at the William & Mary School of Education in Williamsburg, Virginia.

While the mountains certainly have their charms, we're proud to offer a slice of the interesting botany of the Coastal Plain. We've arranged a series of field trips along the Virginia Peninsula that will provide you a look at our wonderful fresh and tidal marshes, cypress swamps, and unique forest habitats, including pine barrens to the south of Williamsburg. You also might enjoy the behind-the-scenes look at the Virginia Living Museum, which you might normally appreciate for its animal life, but not know so much about its incredible greenhouse and plant conservation missions. You'll also have a chance to visit the W&M College Woods with one of its young researchers, the campus' rare woody species, as well as WILLI, the W&M Herbarium and Greenhouse. And no trip is complete without a visit to Williamsburg proper, which, beside its quaint cobblestone streets, is home to plants that hint at its 400-year history.

As we convene Friday afternoon and evening, I hope you will join us at 5 p.m. at the Corner Pocket restaurant, not far from the School of Education. This dinner is not included with the conference registration but is an informal gathering, a sort of pre-conference meet-up at a great restaurant owned by a long-time VNPS member and supporter, Lynn Allison.

Just as we value diversity among our plant habitats and their inhabitants, so do we value diversity in our organization. In a rapidly changing world, we are finding that organizations like the native plant society need to continue to adapt in order to thrive, and that means reaching out to a greater swath of Virginians and reaching younger members where they are.

That is a special focus of this year's meeting, which features an opening session conducted by the Virginia Center for Inclusive Communities and keynoteed by Kevin Bryan, a co-founder of the Next 100 Coalition, a collection of civil rights, environmental justice, and grassroots conservation organizations sharing a vision of a more diverse and inclusive culture in the management and preservation of our nation's public lands.

We are grateful for the generous support of the William & Mary Committee on Sustainability, which awarded the chapter money to support student sponsorships allowing William & Mary students to attend the annual meeting at no cost and help highlight the important work of sustainability on campus. If you have a few dollars to spare, we hope that you will also donate to sponsor a W&M student to attend for free and other students to attend at greatly reduced rates.

We hope you enjoy this weekend of fellowship and learning at the W&M School of Education. Even this building is a testament to our principles of sustainability; built in 2010, it boasts a Gold LEED rating, and I know you'll enjoy its prominent rain gardens as well as its proximity to the woods bordering the Main Campus. So we welcome you to Williamsburg, the Historic Triangle, the Virginia Peninsula, Tidewater. Whatever you call it, we hope at the end of the weekend, you'll feel it's home.

All the best,

Lucile Kossodo

President,

John Clayton Chapter

VNPS



VNPS Annual Meeting Schedule

Friday, October 5

Afternoon	Packet pick-up and check-in	W&M School of Education
afternoon 3-5 p.m.	Packet pick up and check-in VNPS Board meeting	Dogwood Room Room 2066
5 p.m.	Dinner	Corner Pocket or attendees' choice
6:15 p.m.	Cash bar, social hour	Dogwood Room
7 p.m.	Welcome and opening speaker Jessica Hawthorne, Virginia Center for Inclusive Communities	Dogwood Room

Saturday, October 6

8 a.m.	Breakfast, box-lunch pick-up, Field trip carpool sorting	W&M School of Education Holly
9 a.m.	Morning and all-day field trips	Various locations
1 p.m.	Afternoon field trips and workshops	Various locations
6 p.m.	Cash bar, social hour and raffle items	Matoaka Woods room
6:30 p.m.	Annual business meeting	Matoaka Woods Room
7 p.m.	Dinner and raffle winners	Matoaka Woods Room
8 p.m.	Keynote Speaker: Kevin Bryan, Next 100 Coalition, Keystone Group	Matoaka Woods Room

Sunday, October 7

8 a.m.	Breakfast, carpool arrangements	W&M School of Education
9 a.m.	Morning field trips and workshops	Various locations
12:30 p.m.	End conference	

SPEAKERS

FRIDAY NIGHT



Jessica M. Hawthorne

Virginia Center for Inclusive Communities

Jessica M. Hawthorne is director of programs at the Virginia Center for Inclusive Communities, an organization that works with schools, business, and communities to achieve success through inclusion. She designs and facilitates educational programs on diversity and inclusion for middle schools, high schools, colleges, workplaces, and community groups across the Commonwealth. Jessica also leads VCIC's program evaluation efforts. She joined the organization as youth program coordinator in 2012.

Active in the community, Jessica serves on the faculty of the Koinonia School for Race and Justice at Richmond Hill, and she participates on both the Juvenile Justice Collaborative Youth Violence Prevention Workgroup and the Trauma-Informed Community Network. In the past, she has been involved in the Unpacking the 2010 Census program and the Richmond Area Diversity Roundtable, a program of Richmond SHRM.

Prior to her time with VCIC, Jessica worked for her family's local small business as their office and social media manager. She received her undergraduate degree from the University of Virginia in Religious Studies, concentrating in African Religions and Islam. Jessica also earned a Master of Theological Studies from the Candler School of Theology at Emory University along with a Certificate in Religious Education.

The Virginia Center for Inclusive Communities' work has its roots in the 1930s, when it was organized as a grassroots movement responding to religious intolerance. It has evolved and expanded in the intervening 80 years, and today the Virginia Center for Inclusive Communities provides programming that helps Virginia's schools, businesses, and communities achieve success through inclusion.

SATURDAY ALL DAY

Blackwater Ecological Preserve

Location: Zuni

The Blackwater Ecological Preserve is the 319-acre heart of the Zuni Pine Barrens Natural Area Preserve, now covering more than 1,000 contiguous acres. The preserve is a northern-most remnant of a once-vast ecosystem that covered about 93 million acres, of which only a fraction remains. The preserve contains plants not found elsewhere in the state. Among the rare plants expected to be seen are October flower, wooly chaff head, sandy woods chaff head, smooth false foxglove and numerous sedges and grasses. In addition, we will see the few remnants remaining in the Commonwealth of the naval industry, commerce historically dependent upon longleaf pine.

Special instructions: Be prepared for walking on sandy roads.

Dr. Lytton John Musselman is the Mary Payne Hogan Professor of Botany at Old Dominion University and served as chair of Biological Sciences. In 1984 he founded the Blackwater Ecological Preserve in Isle of Wight County and is its manager. The Zuni Pine Barrens Natural Area Preserve was soon established on contiguous land. He co-wrote a book with David Knepper on Chesapeake Bay plants and a 2013 guide to edible plants with Harold Wiggins and is completing a volume on the wildflowers of the Adirondacks with a colleague.



Blackwater by Gary Fleming

SATURDAY MORNING FIELD TRIPS

Ferns & Mosses

Location: James City County

This walk repeats on Sunday morning

A walk in Freedom Park to see, compare and identify ferns in clusters and drifts, and the tiny plants that cover logs and stream edges. Many can be distinguished without much magnification, but a hand lens or magnifier will reveal the complex structures of the shoots and leaves of moss and liverworts. The walk starts behind the Go Ape facility, descends into a ravine with a small stream, and ends with a slight uphill to the parking area.

Special instructions: Prepare for possible muddy walking; a hand lens or magnifier is useful, and a camera with macro lens.

Helen Hamilton, past president of the John Clayton Chapter of the Virginia Native Plant Society, has taught biology in local high schools, worked as a plant technician for the National Park Service and has authored two field guides to native plants, *Wildflowers & Grasses of Virginia's Coastal Plains* and *Ferns & Mosses of Virginia's Coastal Plain*. She has led hundreds of plant walks and has given talks about native plants to local organizations.



Apple moss (*Bartramia pomiformis*) in *Ferns & Mosses of Virginia's Coastal Plain*. Photo by Jan Newton

SATURDAY MORNING FIELD TRIPS cont.

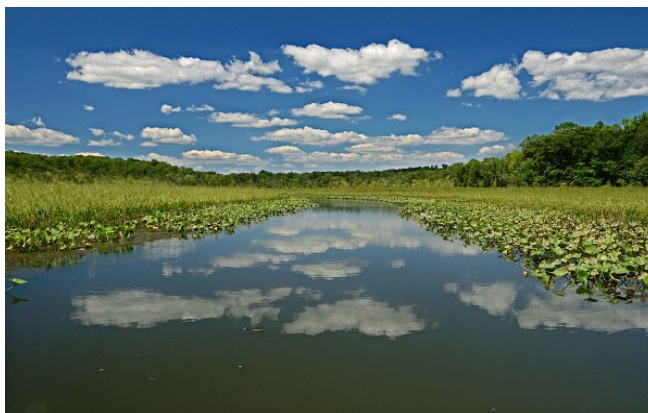
Taskinas and College Creek

Location: Jamestown, Williamsburg, Yorktown

The coastal wetlands of Virginia comprise approximately 75 percent of Virginia's wetlands. Ranging from tidal salt marshes to tidal hardwood swamps, diversity of coastal plain wetland types provides us with numerous ecological functions and social values. On this trip we will visit both tidal salt and freshwater marshes along Taskinas Creek in York River State Park and College Creek along the Colonial Parkway. We will talk about the differences in the dominant vegetation, rare species (plants and animals), the role of "pulsing" hydrology, and overall ecology (water quality, habitat, nutrient cycling), of these systems. We will end by talk about the future of these ecosystems in relation to global climate change.

Special instructions: Please wear **closed** shoes – no sandals! We will be walking in wet situations -- wear **old sneakers** that will not be sucked off your feet if you walk in mud. Guinea boots work well, as do wet-suit booties. Be forewarned that white socks will probably end up brown and will stay that way - I suggest that you wear old socks!

Dr. James Perry is professor emeritus of Marine Science at the Virginia Institute of Marine Science. His research included monitoring stress and long-term changes in plant communities of tidal and non-tidal wetlands, and the relationship of those changes to changes in environmental parameters within watersheds. He has done research around the world and has taught many invited classes and lectured abroad. His classes at William & Mary's School of Marine Science (VIMS) included Asian Environmental Issues, Coastal Botany, Coastal Ecosystem Restoration, Ecology of Coastal



Tidal-freshwater marsh by Gary Fleming

SATURDAY MORNING FIELD TRIPS cont.

Dragon Run Wilderness

Location: King & Queen County



Dragon Run by Seig Kopinitz

Ever save a dragon? the Friends of Dragon Run have! The nonprofit was formed in 1985 by a group of concerned citizens on Virginia's Middle Peninsula, who donated funds to purchase and preserve more than 200 acres of the remote Dragon wilderness and has only expanded in the years since.

Dragon Run, one of the northern-most cypress swamps, has been described as a time capsule of a Chesapeake Bay tributary river from more than a century ago, one reminiscent of what Capt. John Smith would have seen 400 years ago. A number of the Dragon's majestic bald cypress trees are more than 8 feet in diameter and up to 25 feet in circumference, featuring bald eagle nests at the tops and resurrection ferns living on the trunks. Wildlife is abundant, and over 50 varieties of fish and numerous aquatic native plants have been catalogued, including wild iris, cardinal flower, featherfoil, spatterdock, and pickerel weed.

Learn more at <https://www.dragonrun.org>.

Special instructions: There will probably be wet spots, so bring waterproof shoes or boots. Recommend one item of clothing that is blaze-orange or yellow for visibility. Terrain is uneven, a walking stick might be helpful. Binoculars, cameras, field guides and notebooks are always helpful. A hand lens or magnifying glass helps to see fine details.

Teta Kain has been learning about plants, butterflies, habitat management, and nature photography for more than 50 years. She has been president of the Omaha Audubon Society and held many roles with the Virginia Society of Ornithology, including editor of the journal, *The Raven*. She has extensively explored and served Dragon Run, including as paddlemaster of the annual river kayak trips, which has earned her the ultimate grand title: Empress of the Dragon. She has offered more than 600 programs to organizations in Virginia over the past 35 years and is recognized for her talented nature photography.

SATURDAY MORNING FIELD TRIPS cont.

Native Plants in Downtown Williamsburg

Location: Williamsburg

This walk repeats Sunday morning

In some ways, downtown Williamsburg is like a 300-acre botanical garden. Both Colonial Williamsburg and the College of William & Mary have extensive collections of plants adorning their grounds. This tour will focus on the native trees and shrubs that line Williamsburg's historic streets, as well covering a bit of history on how they came to be. Highlights include the unique Catalpa Tree along the Palace Green and the stately Compton Oak in Williamsburg's Market Square.

Special instructions: The walk will be mostly level ground, but include some shallow ravines. Be aware that your shoes may get dirty. The total length of the walk will be about a 1.5 miles.

Phillip Merritt is a landscape architect and long-time member and past-president of the John Clayton Chapter of the Virginia Native Plant Society. He has spent many hours wandering the Lower Peninsula searching for and photographing native plants.



Catalpa by Jan Newton

SATURDAY MORNING FIELD TRIPS cont.

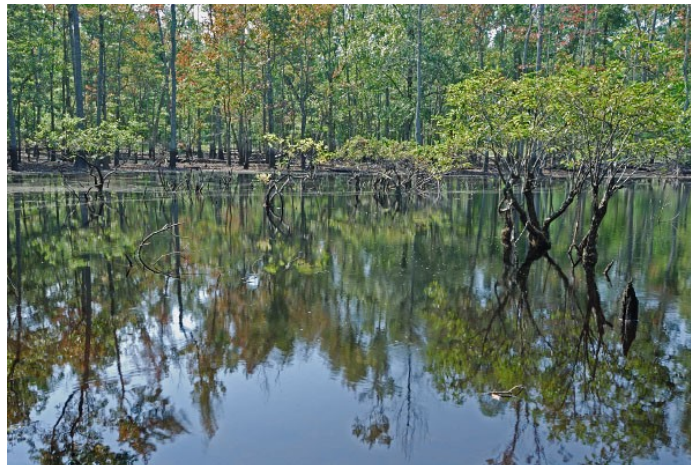
Grafton Ponds Natural Area Preserve

Location: Newport News

Participants will explore several of the seasonal coastal plain depression ponds within Grafton Ponds Natural Area Preserve. The Grafton Ponds are a collection of seasonal depression ponds in one of the last large forested areas of the rapidly developing Virginia Peninsula. Collectively, they are among most important biological areas in the state and are home to several extremely rare plants, animals, and natural communities.

Special instructions: Grafton Ponds Natural Area Preserve is notorious for ticks. Participants are highly encouraged to treat their clothes with permethrin beforehand and apply DEET or picaridin when they arrive.

Zach Bradford is the Chesapeake Bay Region Steward for Virginia's Natural Heritage Program, a division of the Virginia Department of Conservation and Recreation.



Grafton Ponds by Gary Fleming

SATURDAY MORNING FIELD TRIPS cont.

Virginia Living Museum

Location: Newport News

In its gardens and exhibit plantings, the Virginia Living Museum displays one of the most extensive collection of native plants in Virginia. Its gardens include a children's garden, butterfly garden, colonial Virginia and native vegetable garden, conservation garden, the Holt Native Plant Teaching Garden and Plant Conservatory and the NASA-funded ozone garden, which measures environmental effects on native plants. The twice-annual plant sale's goal is to introduce the gardening public to the incredible variety of native plants that will do well in the landscape, and to educate gardeners about those which are better left in the wild. All plants are nursery propagated on site and many are not yet available in the commercial nursery trade. This tour will take you behind-the-scenes of the extensive horticultural operation.

Special instructions: This walk is offered at an additional \$20 (paid to VNPS when you register), which covers full-day admission to the museum.

Darl Fletcher is horticulture curator at the Virginia Living Museum, where he has worked for more than a decade and has greatly expanded the museum's plant nursery, education and exhibits. He previously spent more than five years at the Smithsonian Conservation and Research Center (now the Smithsonian Biology Institute). He is also an avid nature photographer.



Outdoor Exhibits Virginia Living Museum

SATURDAY AFTERNOON FIELD TRIPS

Shoreline Paddle

Location: William & Mary's Lake Matoaka

Enjoy a canoe paddle around Virginia's oldest remaining mill pond and learn the history of Matoaka while you peep native plants, trees and wildlife along the margins of the lake. The trip leaves from the William & Mary [Keck Environmental Field Laboratory](#).

Special instructions: A waiver form will need to be signed. All participants will wear personal flotation devices (provided) at all times on the water. Wear clothes and shoes appropriate for the weather — you might get a little wet in the canoes.

Leaders: Randy Chambers is director of the Keck Environmental Lab at William & Mary. A Williamsburg resident since 2001, he holds a bachelor's degree in biology from Gettysburg College, a master's in zoology from the University of Massachusetts Amherst and a Ph.D. in environmental sciences from the University of Virginia. Randy teaches courses in biology and environmental science and policy. His research specializes in the study of wetland ecosystems. His current work focuses on nutrient dynamics, invasive species and turtle ecology of wetlands.

Dakota Hunter is pursuing a master's degree in biology at William & Mary. His research, guided by Doug DeBerry, focuses on the relationship between invasive wetland plants and environmental variables, such as soil chemistry and light availability. He has worked as an undergraduate re-



Matoaka-with-Canoe by suppamas-sawatyanon

SATURDAY AFTERNOON FIELD TRIPS cont.

White Oak Trail

Location: Newport News Park

A level, easy walk through a lakeside woodland, with a portion of the trail on boardwalk over a beaver-dammed swamp. The trail will take us through several habitats, home to a variety of hardwoods, moisture-loving shrubs, herbs and forbs. There are also some remnants of civil war earthworks. The round-trip walk will be 2 to 2.6 miles, depending on whether we walk the whole loop or double back to meet time constraints.

Special instructions: The trail is level and easy, but may have some wet or muddy spots. Plan to spray feet, ankles and cuffs against ticks and chiggers.

Susie Yager became a Virginia Certified Horticulturist in 2011, read Douglas Tallamy's book *Bringing Nature Home* a few months later, became a Virginia Living Museum horticulture volunteer in 2012, then became a Virginia Master Naturalist in 2013, and joined the Virginia Native Plant Society that same year. She leads local plant walks and gives native plant gardening presentations to help today's gardeners create habitats on their own properties to preserve our native wildlife.



Wildflower Meadow Newport News Park by Michael Poplawski

SATURDAY AFTERNOON FIELD TRIPS cont.

Butterflies and the Plants That Love Them

Location: James City County

The Williamsburg area is home to more than 80 species of butterflies. In September, 30 or so species can be observed in varied habitats. The field-trip leaders will point out butterflies and their preferences for plants and habitats. The walk will take place in gardens, along power lines, and other local habitats. The leaders will describe the Annual Butterfly Count that took place in August and was submitted to the North American Butterfly Association, as well as the work of a small group of local enthusiasts who have documented sightings, determined local host plants and observed behavior.

Special instructions: Bring binoculars if you have them (close-focusing are best), and a camera, though a lot of photography can hinder observation. Be prepared for insects with bug spray. Recommend long-sleeved shirts, long pants and hiking shoes.

Adrienne Frank and her husband Gary Driscoll are members of the Historic Rivers Chapter of the Virginia Master Naturalists, Friends of Dragon Run, and the John Clayton Chapter. They have been learning and teaching about butterflies for the last 10 years, participating in butterfly counts, and collecting data on local butterflies. Adrienne coordinates the Annual Williamsburg Area Butterfly Count and is the editor of the *Butterflies of the Greater Williamsburg Area: An Annotated List of Species*.



Butterfly weed, zebra swallowtail by Cathy Flanagan

SATURDAY AFTERNOON FIELD TRIPS cont.

W&M College Woods

Location: William & Mary

The College Woods is a natural preserve of approximately 960 acres owned by 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 university for decades. This walk will encompass the results of Caitlin's 2016 graduate thesis, which contributes to the ongoing investigation of the Woods by documenting floristic and vegetation changes over the last 45 years amid a rising and uncontrolled white-tailed deer population. Along the walk, we will identify many plant species, including several mountain-coastal plain disjuncts, and we will also observe a forest stand that is over 165 years old.

Special instructions: This walk will be approximately three miles round-trip. We will be walking along trails, however, they can be uneven in some portions of the woods. Ticks are omnipresent. Wear sturdy hiking boots!

Caitie Cyrus is an environmental scientist with VHB, based in Williamsburg. Her specialty is in rare, threatened, and endangered plant species surveys. She graduated in 2012 with a bachelor's degree in Biology from St. Mary's College of Maryland, and in 2016 with a master's in Biology from William & Mary. Her thesis, "Floristic Change Spanning 25 years of Global Change in the College Woods," involved thousands of hours surveying in the College Woods.



Squirrel point by Jan Newton

SATURDAY AFTERNOON FIELD TRIPS

William & Mary Campus Woody Species

Location: William & Mary

This field trip will tour portions of the William & Mary campus, following the Campus Tour of Woody Species started by W&M botany faculty in the 20th century. We will tour the “Ancient” and “Old” portions of campus and point out those trees included in the J.T. Baldwin Memorial Collection. Much of this collection is botanically interesting, although not native. The tour continues through the Crim Dell Meadow and Wildlife Refuge, where many native woody species are found and protected from development by declaration of the Virginia General Assembly. If time permits, we will visit the Adams Garden in the center of “downtown” Williamsburg. More background available at

<https://www.wm.edu/as/biology/planttour/index.php>.

Special instructions: This 1.5-2 hour tour should be relatively easy, with nearly all of the walking on paved or brick sidewalks. Wear comfortable walking shoes, sandals with a back-strap are probably fine.

W&M Herbarium Curator Beth Chambers has worked in the biology department at William & Mary for the past 15 years. Previous positions include website support for various projects, working as an environmental scientist for engineering, as well as photovoltaic manufacturing firms. She worked as a biologist surveying aquatic vegetation at Mote Marine Biological Laboratory. Ms. Chambers is a Board member of Virginia Botanical Associates and the Williamsburg Botanical Garden, and a member of the John Clayton Chapter of VNPS.



Dawn Redwoods by Cathy Flanagan

SATURDAY AFTERNOON WORKSHOP



PRISM founders Rod & Maggie Walker

Don't Give Up the Good Fight – Against Invasives

Location: W&M School of Education

Learn how to identify specific invasive plants and methods for treating them, with some of the most experienced people in the field, the Blue Ridge Partnership for Regional Invasive Species Management, or PRISM. In this workshop, founders Rod and Maggie Walker will present a brief introduction to PRISM and its programs, along with a sample of the training they provide that includes both plant identification and control methods.

PRISM is a volunteer-driven organization dedicated to reducing the negative impact of non-native invasive plants on the health of the natural and agricultural environment in the Blue Ridge Mountains of Virginia. These aggressive plants know no boundaries – flowing water, birds, hikers, vehicles, and animals scatter and spread their seeds like a contagious disease. Through cooperative action, PRISM aims to enable people to reclaim the Blue Ridge region's natural heritage and to become stewards of the lands that are our birthright. The Blue Ridge PRISM is a project of the nonprofit Shenandoah National Park Trust.

Rod was first alerted to the problem of invasive plants in the Blue Ridge by the Oriental bitter-sweet vines that had grown up seemingly overnight and were strangling 15 acres of his family's timber forest. Concerned about the economic damage posed by this invasive vine and others, Rod contacted Shenandoah National Park for advice. The conversations blossomed into Blue Ridge PRISM. Today more than 30 people sit on its advisory board, making up a broad-based coalition of private landowners, nonprofit organizations, for-profit business owners, university faculty, and local, state and federal agencies, and they have formed nine working groups.

SPEAKERS –KEYNOTE

SATURDAY NIGHT



Kevin T. Bryan

Keystone Policy Center

Next 100 Coalition

Kevin T. Bryan is a senior policy director at the Keystone Policy Center in Washington, D.C. Kevin has extensive experience in the development of organizational strategies and structures to address issues pertaining to a range of environmental, energy, and conservation issues.

Kevin currently leads Keystone's Environment, Energy, and Climate practice area. He also provides strategic direction and leadership for the Next 100 Coalition, a collection of civil rights, environmental, justice, and grassroots conservation organizations pursuing a shared vision of a more diverse and inclusive culture in the management and preservation of our nation's public lands.

Prior to joining Keystone, Kevin spent ten years with the Meridian Institute, where he helped guide policy discussions and analysis for coalitions focused on climate and energy legislation and policy. He has led negotiations among stakeholder groups developing consensus policy positions on the economic impacts of climate policy, renewable energy and nuclear power issues, energy technology transformation, and international governance issues. In previous positions, Kevin has worked with individuals and stakeholder groups to reach consensus on wind energy policy issues, and supported federal agency efforts to establish guidelines for stakeholder involvement in environmental decision making.

Kevin received a Bachelor of Science in Civil Engineering from Howard University in 1994 and received the Patricia Roberts Harris Fellowship in 1996 while undertaking graduate work there in public administration. Kevin was selected in 2002 as a fellow with the Environmental Leadership Program. Kevin now lives with his wife Rosie in Washington, D.C.

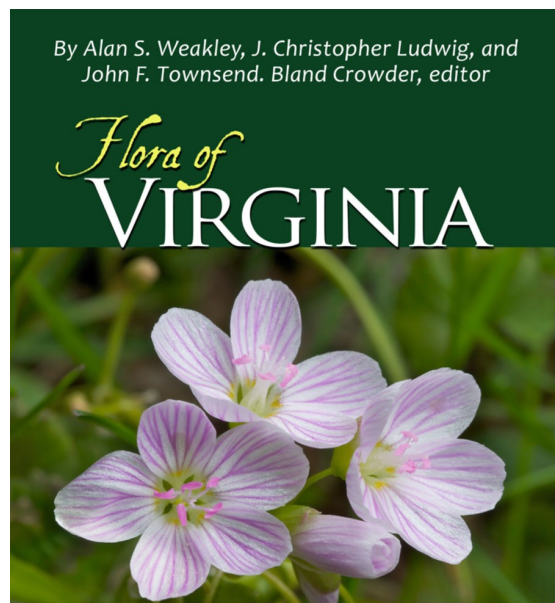
SUNDAY MORNING WORKSHOP

Flora of Virginia App

Location: W&M School of Education

The *Flora of Virginia* is heavy, but now it can fit in your pocket. Learn how to best unlock the functionality of the Flora of Virginia Mobile App in this workshop that will teach you the ins-and-outs and make you feel like a pro in the woods. The app, for Android and iOS devices, contains everything you love from the print *Flora of Virginia*, with a lot more besides. It features an easy-to-use Graphic Key, in addition to the traditional dichotomous keys. Most species descriptions contain up to five photographs, and many include a botanical illustration. Treatments of species that are rare or threatened include conservation ranks, and invasives are scored as to level of invasiveness. And nearly all species have a county-by-county range map.

John Townsend is staff botanist with the Virginia Department of Conservation and Recreation's Division of Natural Heritage. His work as part of the division's inventory team has focused primarily on rare vascular plants and their conservation. He was previously curator of the herbarium at Clemson University. His *Flora* work has included editing of taxonomic descriptions; editing of illustrations, ensuring that they accurately and truly depict key characters, and provision of Virginia-specific information on status and habitat.



SUNDAY MORNING FIELD TRIPS

Wahrani Nature Park

Location: New Kent County

Wahrani Nature Trail is a beautiful park owned by New Kent County. It contains old-growth stands of Coastal Plain Calcareous Ravine Forest and a shell marl outcrop with several species rare to the area, including walking fern (*Asplenium rhizophyllum*), Scott's fern (*Asplenium x ebenoides*), and purple cliff brake (*Pellaea atropurpurea*). Natural springs and seeps are a common feature at Wahrani and many plants typical of mountain slopes find suitable habitat in the well-preserved, shell-rich, sandy soils.

Special instructions: The level of difficulty for this walk is medium. There will be some steep slopes and a fair bit of distance will be covered over the course of the trip. Participants are advised to wear hiking boots and to bring appropriate hiking gear, including bug spray. Participants are encouraged but not required to download the new Flora of Virginia app on their phones.

Joey Thompson has degrees in biology from William & Mary and Virginia Commonwealth University. He has worked for Virginia State Parks and the National Park Service, and is currently an environmental scientist at a local engineering firm, VHB. He conducts natural resource surveys for a variety of projects and specializes in surveying for rare, threatened, and endangered plant species. Joey enjoys hiking, swimming, and traveling with his girlfriend and dog.



Gary Fleming

SUNDAY MORNING FIELD TRIPS

Repeat Trips

Native Plants in downtown Williamsburg

Phillip Merritt

Highlights include the unique Catalpa Tree along the Palace Green and the stately Compton Oak in Williamsburg's Market Square.

W&M College Woods

Caitie Cyrus or Stewart Ware

This walk encompass the results of Caitlin's 2016 graduate thesis, documenting floristic and vegetation changes over the last 45 years amid a rising and uncontrolled white-tailed deer population.

Butterflies and the Plants that Love Them

Adrienne Frank & Gary Driscole

The Williamsburg area is home to more than 80 species of butterflies. In September, thirty or so species can be observed in varied habitats. The field-trip leaders will point out butterflies and their preferences for plants and habitats. The walk will take place in gardens, along power lines, and other local habitats.

Ferns & Mosses

Helen Hamilton

A walk in Freedom Park to see, compare, and identify ferns in clusters and drifts, and the tiny plants that cover logs and stream edges. Many can be distinguished without much magnification, but a hand lens or magnifier will reveal the complex structures of the shoots and leaves of moss and liverworts.

SUNDAY MORNING FIELD TRIPS cont,

W&M Herbarium and Greenhouse

Location: William & Mary

This field trip will be an indoor tour the William & Mary Biology Greenhouse and Herbarium, both located in the Integrated Science Center on Campus. The greenhouse supports botanical research, including current studies focusing on milkweed and pollinators, and monkeyflower (*Mimulus* spp.) flowering genetics. Greenhouse staff cultivate plants for educational use, and maintain a collection of largely tropical plants from around the world for demonstration and educational purposes.

With over 82,000 specimens, the W&M herbarium houses a large collection of dried vascular plants representing Virginia Coastal Plain native flora. The tour will describe current efforts to photograph the collection for digital public access, and ongoing plant collection and processing projects

Special instructions: This tour will be a very easy walk, indoors, with elevators available as the tour moves from between floors in the Integrated Science Center building. The greenhouse can be quite warm, and the herbarium quite cool, so wearing light layers may be handy.

Patty White-Jackson works in the Biology Department at William & Mary as the greenhouse manager. She has many years' experience cultivating and managing a horticultural services in private and commercial settings.

W&M Herbarium Curator Beth Chambers has worked in the biology department at William & Mary for the past 15 years. Previous positions include website support for various projects, working as an environmental scientist for engineering, as well as photovoltaic manufacturing firms. She worked as a biologist surveying aquatic vegetation at Mote Marine Biological Laboratory. Ms. Chambers is a Board member of Virginia Botanical Associates and the Williamsburg Botanical Garden, and a member of the John Clayton Chapter of VNPS.



SUNDAY MORNING FIELD TRIPS cont.

New Kent Forestry Center

Location: New Kent County

This field trip will explore a one-mile nature trail through the bottomlands of the Chickahominy River in New Kent County. We will examine excellent examples of bald cypress – tupelo swamp, Coastal Plain bottomland hardwoods, a “swamp island” upland hardwood forest, and a fluvial terrace sandhill woodland. Several state-rare plants are present among the diverse flora of these natural communities.

Special instructions: Sturdy footwear, long pants, and insect repellent are recommended.

Gary Fleming is a vegetation ecologist at DCR’s Virginia Natural Heritage Program with more than 35 years of botanical and ecological field experience. In addition to leading the development of a state-wide vegetation classification, Mr. Fleming produced two introductory chapters and all



Fetterbush by Jan Newton

SUNDAY MORNING FIELD TRIPS Cont.

New Quarter Park

Location: York County

Join Doug DeBerry, professor of Environmental Science at William & Mary, on a botanical exploration of one of the lesser-known jewels in the Williamsburg area – New Quarter Park. While there, we'll discuss species, ecosystem dynamics, and unique plant adaptations that allow some of our more charismatic wetland flora to thrive in tidal marsh habitats. Attendees might even decide to linger after the tour and enjoy the park's many amenities (canoe/kayak access, picnic shelters, mountain bike trails, playgrounds, and an 18-hole championship disc golf course). Plenty of parking and restrooms available at the park.

Special instructions: Long pants and field-worthy footwear recommended, but not essential. Bring water.

Doug DeBerry is a research assistant professor of Environmental Science and Policy at William & Mary, where he teaches courses and conducts research in ecology and related disciplines. In addition, he serves as a senior environmental scientist at VHB and is on the Board of Directors for Flora of Virginia Project. He contributed the species descriptions for the genus *Carex* in the *Flora of Virginia*, and loves to geek out over sedges and other graminoids.



Habitat garden New Quarter Park by Cathy Flanagan

SUNDAY MORNING FIELD TRIPS Cont.

WILLIAMSBURG BOTANICAL GARDEN

Location: James City County

A guided walk through the Williamsburg Botanical Garden. Volunteer plant devotees began in 2005 to transform a two-acre, hurricane-ravaged, ellipse-shaped parcel of land in Freedom Park into a botanical garden. They have developed horticultural displays, a butterfly garden and a meadow, plus other habitats populated solely by local native plant material from the repository of the Williamsburg Native Plant Rescue Team or plant material already present on the site. These habitats include marsh, swamp, stream bank, roadside, older and younger pine woods, a fernery and a calcareous ravine. The garden also hosts a butterfly festival.

Special instructions: Parts of the garden are open and sunny and a hat and sunglasses may be advisable. Some of the trails are challenging to negotiate in a wheelchair, but detours can be worked out.

Dr. Donna Ware, vice president of the John Clayton Chapter of VNPS, served as curator of the William & Mary Herbarium for 30 years, during which time she also carried out several floristic studies and did multi-year population studies of the threatened small whorled pogonia. She is among the coauthors of the hard-copy editions of Alton Harvill's *Atlas of the Virginia Flora*, a founding member of the John Clayton Chapter of VNPS, and has been involved in developing the Williamsburg Botanical Garden from its inception.



Yellow Lady's Slipper Williamsburg Botanical Garden by Seig Kopinitz