

Sempervirens

Fall 2019 The Quarterly of the Virginia Native Plant Society

Ancarrow's List 'Native Plants on the River's Edge' exhibition

Article by Judy Thomas, Plants of the James River Project Chair

As a botanical artist living in Virginia, I have long been interested in native plants. Joining VNPS has been amazingly helpful to my learning about native flora. A few years ago, another artist, Paula Blair, and I formed the Plants of the James River Project (PJRP). We recruited two talented artists, Cheryl Exley and Betsy Lyon, to form our board. After casting about for some structure to organize our native plants project, we rediscovered Ancarrow's List.

Newton Ancarrow was born in Richmond in 1920. The James River was his playground and had a lasting influence on his life. Ancarrow was said to have "a need for speed." He majored in chemistry and physics at the University of Richmond, but his first love was fast boats. This led him to open Ancarrow Marine in the 1960s, located in Richmond along the James River. Soon, a huge problem

arose: Ancarrow's boats, dock, and business property on the James were being fouled by oily pollution. He could not allow his famous clients to visit the boatyard. When the pollution began to peel the paint off his beautiful wooden boats, his disgust turned to activism and he began to work in earnest to force the city to clean up the James.

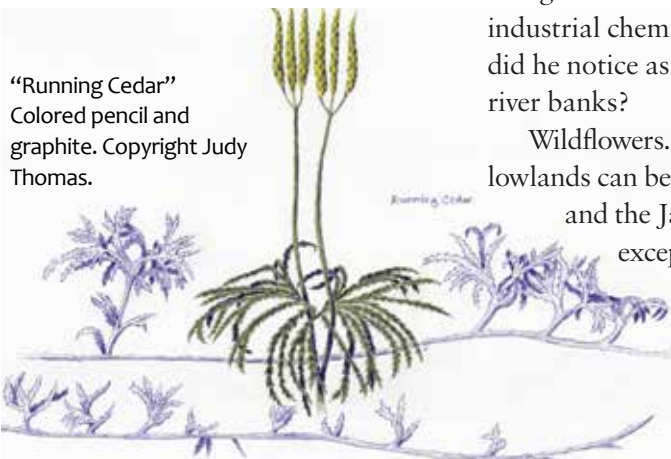
Ancarrow explored the riverbanks and documented where pollutants were being dumped to provide evidence to the city and, later, the courts. What he found appalled him. At this time, the city of Richmond was dumping raw sewage into the James River, along with heating oil, and industrial chemicals. But what else did he notice as he explored the river banks?

Wildflowers. River banks and lowlands can be rich in flora, and the James River is no exception. We can guess that Ancarrow experienced the same joy VNPS members (and botanical artists)



Newton Ancarrow, 1971, seen photographing a wildflower at the James River in Richmond. (Courtesy Lewis Ginter Botanical Garden and VCU Libraries)

experience when we discover a plant new to us. Ancarrow taught himself some botany and photography to document native plants. Eventually, he would take 35,000 photographs of over 400 species, native and introduced. Along the way, he realized that these photographs could be a powerful tool to inspire support for cleaning up the James. Ancarrow developed a strategy: he created a slide show of wildflowers and presented it to garden clubs and other organizations around the state. This produced a growing chorus of voices that eventually led to cleaning the James. Today, 1.8 (See *Ancarrow*, page 11)



"Running Cedar"
Colored pencil and
graphite. Copyright Judy
Thomas.



From the President, Nancy Vehrs

'Plant Natives' is theme of fundraiser

With so much of our beautiful Commonwealth already developed, we despair for the future of our native birds and insects that depend on our precious native plants. The VNPS seeks to conserve the lands that are still undisturbed, but we also need to make developed spaces more hospitable to nature. Dr. Doug Tallamy addresses this effort in his upcoming book *Nature's Best Hope, A New Approach to Conservation that Starts in Your Yard*. That's why this year's fundraiser was selected to support the *Plant Virginia Natives* effort. Regional native plant gardening guides have been developed

for most of the areas of Virginia that include the Coastal Plain because grant money was available. Other areas of the state need start-up funds to produce these guides. Reprints of current guides need funding as well. I hope that you will give generously to this effort and support the rewilding of built environments. Our goal is \$20,000 exclusive of expenses.

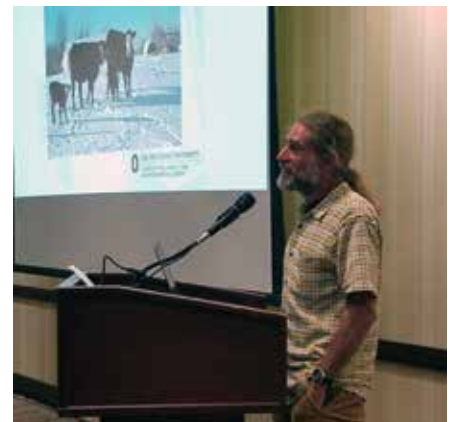
As the year comes to a close, we thank the members of our board of directors who recently completed their terms, Janet Pawlukiewicz as First Vice President, Bland Crowder as Publications Chair, Joyce Wenger as Director-at-Large/Research Grants Coordinator, and Cathy Mayes, Director-at-Large. We appreciate their

immense contributions to the Society. Cathy Mayes previously served as VNPS treasurer for many terms and we are grateful for her faithful service.

We welcome Kevin Howe as our new First Vice President, and he has volunteered to serve as our research grants coordinator for the upcoming application period. We also welcome Jim Hurley to the board of directors where he will share duties with Ruth Douglas as Co-Invasives Plant Educator. There are still open positions on our board including Membership Chair (develop ways to retain and recruit members), Publicity Chair, and Publications Chair.

Best wishes for a happy and healthy holiday season. ❖

Scenes seen at the Annual Meeting



Piedmont Chapter lauded as excellent hosts

Members of the Piedmont Chapter outdid themselves with organizing this year's annual meeting and offering such a wide variety of field trips and activities. While the VNPS board of directors held its quarterly meeting in the late afternoon, the halls of the Holiday Inn boomed with activity: T-shirt and book sales, invasive plant exhibits, raffle sales, and plenty of native plants on display. The happy hour before dinner allowed members a chance to catch up with old friends from across the commonwealth. Following the buffet dinner, Piedmont Chapter President Karen Hendershot officially welcomed the more than 140 participants representing every chapter.

Featured speaker T'ai Roulston, Research Associate Professor and Curator, State Arboretum of Virginia at Blandy, University of Virginia, presented "In Praise of Unloved Things, the Ecological Interactions of Despised Plants." His presentation demonstrated that warm season meadows are a popular way of converting weedy fields, mowed areas, or abandoned agricultural fields into native habitat to support wildlife, including birds and insects. He noted that these areas are potentially very important in supporting pollinator populations, but relatively little is known about the value of individual plants in these meadows compared with the value of plants that are being replaced or plants in surrounding areas. As part of a study of bumble bees in cool season and warm season meadows, he and his team found that the three most common plant species used for pollen collection by bumble bees in these meadows in early to mid summer are not species intentionally planted in the meadows. Two of them are usually considered weeds that grow

in or near the meadows—the native Horsesettle and the non-native Crown Vetch—and the third, American Linden, is a tree that commonly grows in nearby forests. What a revelation.

Following an early morning buffet on Saturday, the field trip carpools departed every five minutes as designed by the planning committee. I was in the earliest group because we had the farthest to travel: Hawksbill in Shenandoah National Park. September 29 was "National Public Lands Day" so admission was free to the park and trailhead parking lots were crowded. Meeting up with leaders Gary Fleming and Johnny Townsend of Virginia's Natural Heritage Program, we set off on a short bushwhack to a beautiful rock outcrop. Before we even left sight of Skyline Drive, Mary Jane Epps was finding and identifying interesting fungi. A few sprinkles fell as we made our way amongst several species of goldenrods and asters. Besides some uncommon species at the outcrop, I delighted in fall-blooming Witch Hazel (*Hamamelis virginiana*), Mountain Ash (*Sorbus americana*), and the remains of Tall Milkweed (*Asclepias exaltata*).

Another before dinner social and bountiful buffet dinner preceded the official annual meeting. The membership adopted the annual budget and reelected Johnny Townsend (At-Large) and Ruth Douglas (Invasive Plant Co-Educator) to the board of directors. Kevin Howe (First Vice-President), Alex Fisher (Conservation), and Jim Hurley (Invasive Plant Co-Education) were also elected to the board. Jerome Prochaska elicited gales of laughter from the audience during his unscheduled comedy monologue at the conclusion of the business meeting.

We recognized the attendance of

charter members Jocelyn Sladen and Marion Lobstein and announced that one of the annual research grants will be named in memory of past president Mary Pockman.

Saturday evening's keynote address was presented by Woody Bousquet, Professor Emeritus of Environmental Studies and Biology at Shenandoah University in Winchester. Entitled "Abrams Creek Wetlands: An Ongoing Conservation Story," Woody's presentation examined the scientific investigation, protection, management, promotion, and continuing challenges of preserving the rare ecological communities and species of this calcareous wetlands complex, which is located in the northern Shenandoah Valley. Among the points emphasized were the importance of developing a written management plan, the need for community involvement and environmental education, and the flexibility required to respond to both barriers and opportunities for conservation. Google "Abrams Bousquet Fleming" for the full floristic study that Woody co-authored in 2017 with Gary Fleming of the Virginia Natural Heritage Program.

Sunday morning we all started an hour later for our half-day adventures. Harry and I went to Shenandoah River State Park for the mushroom walk. The mushrooms were scarce because of the late summer drought.

We thank the members of the Piedmont Chapter's annual meeting committee for their meticulous planning. Special thanks go to Cathy Mayes, the committee chair, and chapter president Karen Hendershot. Bravo! Next year we plan to hold the annual meeting in Abingdon in southwestern Virginia the last weekend in September.

—Nancy Vehrs, President



View from Buffalo Mountain summit, one of Virginia's top scenic assets in the New River region. (Courtesy Natural Heritage Program)

Natural Heritage celebrates land additions

Efforts to permanently protect Virginia's natural heritage have resulted in six real estate projects, which dedicated new land to the Division of Natural Heritage (DNH) Natural Area Preserve system. The fact that our last report, in 2018, only highlighted two completed projects hints at the overall rarity of such projects. From cultivating willing landowners to obtaining necessary grants (the Heritage program receives no direct state appropriated acquisition funds) through completing due diligence and closing steps, involving several other state agencies and multiple contractors, an "average" acquisition can take three years. Given the lengthy process and detailed procedures each closing feels like a significant milestone. However, there is little time for celebration as we try to keep the pipeline of new projects moving.

Here's a brief summary of the newest preserve additions.

CAMP BRANCH WETLANDS NATURAL AREA PRESERVE – FLOYD COUNTY

This project included several significant firsts. DNH and the New River Land Trust (NRLT) had never

directly collaborated and NRLT had never previously purchased a tract of land. NRLT staff and board stretched their comfort zone and completed a 66-acre purchase identified as critical by DNH, backed up by funds secured by DNH from the Virginia Land Conservation Foundation (VLCF) and Department of Game and Inland Fisheries. NRLT consummated the purchase, repaid the loan, and placed a perpetual deed of dedication on the property with expectation to donate the tract to the Commonwealth in the coming months.

MAGOTHY BAY NATURAL AREA PRESERVE – NORTHAMPTON COUNTY

DCR has continued to partner with the Coastal Zone Management Program (CZMP) to improve migratory bird habitat near the southern tip of the Eastern Shore. The area is one of the most significant fall migration stopovers, but existing farm fields provide little cover or food for birds along this critical route. With CZM funds and a match secured from VLCF, we purchased 105 acres and will soon begin to restore the open fields to

From Your Natural Heritage Program

By Rob Evans



native vegetation in order to provide critically needed fruits and insects for migrating songbirds.

ANTIOCH PINES NATURAL AREA PRESERVE – ISLE OF WIGHT COUNTY

As an addition to one of the keystone preserves in DNH's effort to restore Longleaf Pine and its associated fire-adapted vegetation, this 140-acre tract provides both smoke buffer to support existing prescribed burn efforts as well as additional area to expand habitat restoration, which will include a number of significantly rare plant species.

BUFFALO MOUNTAIN NATURAL AREA PRESERVE – FLOYD COUNTY

A six-acre addition protects part of the entrance corridor into the preserve and its existing parking lot and hiking trail from incompatible development. As such, this tract directly complements the

recreational and user experience on the preserve, while also protecting a small population of Roan Mountain Sedge (*Carex roansensis*). In addition to a VLCF grant, this project was supported by both a private benefactor and the Blue Ridge Wildflower Society, each of which made financial contributions to the Natural Area Preservation Fund.

BALD KNOB NATURAL AREA PRESERVE – FRANKLIN COUNTY

Known to rare plant enthusiasts for its large population of the globally-rare Piedmont Fameflower (*Phemeranthus piedmontanus*), Bald Knob is the most recent new Virginia Natural Area Preserve to be established (2016). With 33 additional buffering acres, this preserve now protects frontage along the Pigg River, a designated Virginia Water Trail and potential Virginia Scenic River, as well as habitat for the state endangered Roanoke Logperch (*Percina rex*).

DEEP RUN PONDS NATURAL AREA PRESERVE – ROCKINGHAM COUNTY

Perhaps the most complex transaction of the year, this one involved a new partnership with



The Bald Knob tract in Franklin County borders the Pigg River, a designated Virginia Water Trail. (Courtesy Natural Heritage Program)

the Potomac-Appalachian Trail Club (PATC) and the National Park Service, as well as a private landowner. With grants from VLCF and the DuPont settlement, 62 acres were donated in fee by PATC as an addition to the preserve, while an additional 62 acres are held by PATC and protected by DCR-held Open Space easements. The combined acreage links the existing NAP with Shenandoah National Park and protects significant conservation values

including a portion of an Audubon Society Important Bird Area with “important stopover habitat for hundreds of thousands of migrating passerines during migration” and “one of the most significant fall raptor flyways in Virginia.” The site is also replete with cultural significance as part of the Port Republic Civil War Battlefield Study Area, and a Civilian Conservation Corps and Civilian Public Servant Camp facility from 1933-1946.

In the coming year, we will remain focused on improving the resiliency of existing preserves and expanding them where strategic opportunities exist to do so. With a little luck, we expect more additions to one of VNPS’s favorite locations, The Cedars, and we may even add a new preserve!

From the land donation made last year at Mount Joy Pond in southeastern Augusta County to the monetary donations made to the Natural Area Preserve Fund that have helped with all additions listed above, DNH staff never forget that VNPS remains one of DNH’s most committed partners. ❖



The Morton Tract is a 124.88-acre project in Rockingham County in the Shenandoah Valley. (Courtesy Natural Heritage Program)

Society founders create large environmental legacy

Two venerable ladies, both named Mary and both intertwined with the story of the Virginia Native Plant Society, passed away this year. The absence of both women leaves a hole in the Society, but the legacy of their vision and the strong foundation they built for important conservation work continues.

“The Two Marys,” are founder Mary Painter and second president Mary Pockman. Mary Painter had the



Mary Pockman

inspiration and energy to lead the creation of the organization in 1982 as the Virginia Wildflower Preservation Society.

Originating

in Fairfax County where land development was accelerating, the VWPS sought to rescue and relocate plants in jeopardy, cultivate wildflowers, and educate the public about them. Mary Pockman, the second president of the Society, and also based in Fairfax County, was a formidable presence and held strong views about saving the land and plant communities themselves. She also saw the threat of nonnative invasive plants. It was during her presidency that the Society’s name was changed to the Virginia Native Plant Society to reflect a broader range of issues. Both women retired out of state. We certainly owe our existence to these two very different, but equally remarkable, women.

Let us remember the work of these two women through the words of those who honored them at their

passing. Mary Murrin Painter of Bonita Springs, Florida, passed away on Sunday October 6. Born Mary Carol Murrin on December 19, 1949, in Charleston, West Virginia, she was an avid equestrian, swimmer, artist, writer, designer of hats and furniture, and a lifelong golfer.

Mary Painter was the founder of the Virginia Wildflower Preservation Society, later named the Virginia Native Plant Society, in 1982. She was president and board member of VNPS for several years and was honored at the White House by First Lady Barbara Bush as a Washington Metropolitan Area Volunteer of the Year. Mary was also Director and long-standing steering committee member of the widely-acclaimed Conference on Landscaping with Native Plants, held annually at Western Carolina University in Cullowhee, N.C. She was also honored by Mary Baldwin College in 1991 with a Career Achievement Award and the Sesquicentennial Medallion in 1992.

Mary Painter graduated from Charleston Catholic High School in 1967 and later as an art major in 1971 from Mary Baldwin College. She went on to marry Jamie Painter and lived at their home, Wildside Farm, in Virginia until 2009. At Wildside, Mary was the owner and operator of Virginia Natives Nursery, where she poured her heart and soul into all living things, including plants, dogs, cats, horses, and, of course, her children. Known for her flowery handwriting and drawings. She created the original banner for the Bulletin, the society’s newsletter.



Mary Murrin Painter (Courtesy Painter family)

Mary Painter is survived by her partner of many years, Dr. John Allen Mayo and two sons and their families.

Mary Pockman died on Sunday, May 12, 2019, in Albuquerque after a long struggle with dementia. She was 88 years old. She is survived by her husband, Ted, her son, Will, her daughter-in-law, Marcy, and her granddaughters, Ella and Lucy.

Mary Pockman was also an early leader in the Society who fought against the destruction of Virginia’s natural landscape. Her biggest battle involved Disney’s attempted takeover of Gainesville and western Prince William County, but she also fought to stop the destruction of Mason Neck, a large, old-growth, Oak-Heath forest and a native American cobble-tool-terrace in Fairfax County.

Mary Pockman was the second president of the Society. It was during her tenure that the name was changed from the Virginia Wildflower Preservation Society to the Virginia Native Plant Society. She had a lot to do with the organization’s development and the creation of the administrative handbook. She also served on the Mid-Atlantic Invasive Plant Council.

Mary Pockman was born in Champaign, Illinois, to Dr. Harold Bailey, a professor at the University of Illinois, and Marian Kinney (See *The Mary Legacy*, page 11)



Various insects visiting and probably pollinating flowers of New Jersey Tea, *Ceanothus americanus*. 1. A sweat bee, *Lasiglossum* sp. (family Halictidae). 2. A bumblebee, perhaps *Bombus griseocollis* (family Apidae). 3. A longhorn beetle, *Brachyleptura rubrica* or a similar species (family Cerambycidae). 4. A flesh fly (family Sarcophagidae). 5. A hover fly from the genus *Syritta* (family Syrphidae). 6. Another hover fly, *Toxomeris marginatus* (family Syrphidae).

Celebrating NJ Tea's unspecialized pollination

Article by W. John Hayden, Botany Chair

Specialized pollination systems are the source of some of the most compelling stories in natural history. There is something appealing to the human psyche about what seems to be a reciprocal agreement between a given plant and its dedicated pollinator: the plant attracts a pollinator and provides ample nectar and/or pollen as a reward for the pollinator's service in moving pollen from anthers to stigmas while foraging for food. Of course, these organisms have neither signed agreements nor memos of understanding. Instead, it has merely proven to the benefit of the plant, over time, to form certain floral structures, and to produce excess pollen and/or nectar. Likewise, certain behaviors by the pollinators have proven, in the long run, beneficial to the survival of the pollinator. To put it in human terms, each is acting in its own self-interest, but together they are like pieces of a puzzle that fit together perfectly. Thus, for example, Cardinal Flower (*Lobelia cardinalis*, the 1991 VNPS WOY) is bright red, a color highly attractive to hummingbirds, the flower is zygomorphic (bilaterally symmetric), which channelizes the hummingbird's approach to a direct, head-on orientation, from which the anthers are positioned in just the right spot to dust pollen on the face of the hummingbird as it probes deeply into the flower for a

sip of nectar; a second visit to another flower will smear some of that pollen directly onto a perfectly positioned stigma. Mission accomplished!

As intriguing as they are, specialized pollination symbioses are not the only game in town. What might be considered the opposite extreme are highly unspecialized pollination syndromes characterized by individual flowers, or groups of closely spaced flowers, that are easily accessible to a wide variety of visitors. Such plants are often characterized as "pollinator magnets." The 2019 VNPS WOY, *Ceanothus americanus* or New Jersey Tea, provides an instructive case in point. Granted, *Ceanothus* flowers are a bit peculiar (see *Sempervirens* Spring 2019: 6-7). Despite their individual oddities, these small flowers occur in clusters and within a given cluster many flowers are open at the same time. A wide variety of insects can alight on a *Ceanothus* flower cluster, probe multiple flowers for nectar, and while clambering around, pick up pollen on one or another body part. The process is repeated upon visiting another flower, but some pollen from anthers of the first flower cluster will rub off on stigmas of the second. And because many different insects can function as effective pollinators, most *Ceanothus* flowers get pollinated and eventually produce seeds.

The accompanying images constitute a celebration of New Jersey Tea and the diverse insects that visit, and probably pollinate its flowers—actually, shown here are just a small portion of its potential insect visitors. Note that while rigorous scientific data are required to demonstrate that any floral visitor is an actual pollinator, I think it is highly probable that the insects illustrated here are indeed effectively transporting *Ceanothus* pollen between flowers. Tom Houser of the Norfolk Botanical Garden graciously provided these images and Dr. Art Evans provided insect identifications. Their assistance is gratefully acknowledged. ❖



VIRGINIA NATIVE
PLANT SOCIETY

Sempervirens (ISSN 1085-9632) is the quarterly newsletter of the Virginia Native Plant Society, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, Va. 22620, 540-837-1600, info@vnps.org. Nancy Vehrs, President; Nancy Sorrells, Editor; Karen York, Office Manager. Original material in *Sempervirens* may be reprinted if credit is given to the Virginia Native Plant Society, to *Sempervirens*, and to the author of the material, if named. Readers are invited to send letters, news items, and queries for consideration. E-mail items to Nancy Sorrells at lotswife@comcast.net.

Next submission deadline: Jan. 15, 2020

Wood pellet industry threatens Virginia forests

Environmentalists around the world have been appalled by this year's fires and illegal agricultural deforestation in the Amazon rain forest. Yet, according to the Sierra Club, industrial logging in the southeastern U.S. is reducing forest cover four times faster than in the Amazon.

Virginia is part of that equation, thanks in part to the cutting of trees for wood pellets that are exported and then burned for electricity in the United Kingdom (UK). So ultimately, Virginia forests are on fire just as the Amazon has been.

The bewildering thing about this practice is that its supporters call it "green energy." Burning Virginia trees that have been chopped and baked into wood pellets in former coal-fired power plants is apparently helping the UK and other countries meet their carbon reduction obligations under the Paris Climate Accords. This is because the European Union (EU) considers wood pellets to be a renewable form of energy when it replaces coal, a nonrenewable fossil fuel. This is also why both the EU and UK heavily subsidize this industry.

Otherwise, how could it possibly be financially feasible to cut down trees in Virginia, chop and bake them into pellets, truck them to a port, ship them across the Atlantic, then transport them to a power plant there to be burned for energy?

It is true that trees are at some point renewable if they are replanted. Indeed, the wood pellet manufacturers like to say that more trees are being planted than are cut down. Yet, according to numerous environmental groups, this process has often left traditional native hardwood forests cut down and replaced by "pine plantations." Pine plantations are "forests" in that they are large tracts of land covered with trees. But they are also monocultures—rows upon rows of artificially fertilized, crop-like trees, where the undergrowth is controlled just like weeds on a tobacco farm,



An aerial view of a wood pellet processing center. (All photos courtesy Dogwood Alliance)

and where biodiversity does not exist. By contrast, older growth hardwood forests are biodiverse regions critical to the environmental health of Virginia and other states. This is especially true because studies find that land with greater forest species diversity absorbs more carbon than do monoculture pine plantations that are favored for their fast regrowth. Yet, pine plantations are now ubiquitous. Between the 1950s and the early 2000s, pine plantations in the Southeast grew by 30 million acres, according to the Rachel Carson Council, a national environmental organization.

When the wood pellet industry ramped up to provide pellets to major European power plants, industry officials said they would use only "waste material" from forests—things like saw mill waste, the tops of trees, and the top limbs and roots of processed trees. But then the demand for wood pellets grew beyond what could be met by these residues, according to the Rachel Carson Council's exhaustive 2019 report on the wood pellet industry. As a result, *(See EU standard, next page)*



Wood pellet industry critics note that the pine plantations created for harvest are monocultures that contribute little to the natural environment.

EU standard presents a false equation

(Continued from page 8)

clearcutting sometimes occurs, and sometimes this even occurs among bottomland hardwoods, though the extent to which this happens has been hard for environmental groups to quantify because the wood pellet industry has not cooperated with environmental corroboration efforts. What is known is that a large expanse along the Virginia-North Carolina border was one of three regions under “imminent threat” from potential heavy wood harvesting for wood pellets, according to a 2015 study by the Natural Resources Defense Council. The region includes “60% of Virginia’s unprotected woody wetlands,” the study reported, some of which is surely gone in the four years since the report was written.

While Virginia has a plan to cap its carbon pollution from power plants, it – just like the EU – basically exempts the pollution created from burning wood for electricity. According to studies, about 180,000 acres of Southern forests are logged annually to supply the wood pellet mills, most of which are located in rural areas such as Southampton County, just west of Suffolk. There, Enviva Biomass, the world’s largest producer of wood pellets, has a plant with the capacity to produce 750,000 metric tons of wood pellets each year, according to *Biomass*, the wood pellet industry’s magazine. It is in areas like Southampton County, where the poverty rate is high and the population is low, where wood pellet companies can best justify a questionable industry because of the jobs they



A logging truck hauls wood to a wood pellet plant.

bring to areas that need them. A second Enviva plant is being considered outside Danville.

The only reason why cutting Virginia forests meets the EU standard for greenhouse gas emissions is because emissions are measured only at European power plants. What never gets added to that equation are the effects of the carbon storage that’s lost when trees are cut down, or the carbon emissions from the massive, hot, pellet plants, the logging and pellet trucks, or from container ships that transport trees across the Atlantic. Even worse, according to the Rachel Carson Council, new studies find that burning wood pellets for fuel releases as much as, or even more, carbon dioxide per unit of energy than coal.

Why are European power plants not using European forests? Because

those forests are highly regulated. Ours are barely regulated, if at all. And more and more tree-cutting could be coming, as Enviva and other companies, including Drax—the massive UK power company now running its own wood pellet mills in Mississippi and Louisiana—have been doggedly intensifying their pellet operations throughout the Southeast.

—Cindy Elmore is a professor at East Carolina University and the vice chair of her local Sierra Club group, which has been fighting the wood pellet industry in North Carolina. She holds a Ph.D. in journalism from UNC-Chapel Hill and was raised in Hampton Roads, Virginia.



Herbarium move helps biodiversity future

Article and photos by Andrea Weeks, Director, George Mason University herbarium

Editor's Note: In 2019, with sponsorship from the Virginia Native Plant Society, the Lord Fairfax Community College Herbarium (LFCC) was transferred to the herbarium of George Mason University (GMU) for digitization and long-term curatorial care. This brief article provides an update on the progress of this initiative and an invitation to Society members to follow the digitization process online as it unfolds over the coming year.

In 2017, Professor Robert Simpson, the founding curator of LFCC located in Middletown, Virginia, retired after more than 40 years. During his tenure, he built the 20,000-plant specimen collection through field work that centered on the seven-county region of northwestern Virginia (Clarke, Fauquier, Frederick, Page, Rappahannock, Shenandoah, and Warren counties). The collection was key in documenting county and state records during the atlas of the Virginia flora construction of the 1980s and 1990s and is the most comprehensive floristic record of this rapidly-changing region of Virginia. Because the college did not intend to hire another curator, the herbarium



The curatorial care and digitization workflow for LFCC is now underway at George Mason University, with undergraduate students as key partners. Here, undergraduate Rahima Adnan is databasing LFCC specimens in the section of the herbarium reserved for its cabinets and boxed specimens.

needed a new home to preserve its record of Virginia's flora for use by future researchers. After consultation with Professor Simpson and his college, I applied for and was awarded a VNPS research award to facilitate the relocation of the contents of the Lord Fairfax herbarium to George Mason.

In late spring of 2019, I obtained an official donation letter from the college that authorized the transfer of the herbarium to the university, which allowed moving plans to be finalized. In early summer, my graduate students and I bagged, packed and moved the entire LFCC collection to GMU, which totaled 62, 18-inch by 12-inch by 12-inch boxes including accessioning log books and unmounted specimens. Once at GMU, sequential batches of boxes were frozen at -80°C for 10 days to destroy any potential insect pests. With funds from VNPS, I hired a recently-graduated botany master's student, Elizabeth McMurchie, to assist with the move, develop a taxonomic annotation workflow for the LFCC specimens, and manage the specimen decontamination. Elizabeth started her Ph.D. this fall in Iowa, where she'll be working on bamboo systematics, so the summer curatorial experience served her well in the future. The international online registry of herbaria, Index Herbariorum, was also updated with the new location of the LFCC herbarium in Fairfax.

The curation and digitization process for LFCC is now underway at GMU. On September 6, movers



Packing day at Lord Fairfax Community College Herbarium. Approximately two-thirds of the boxes required to transport LFCC are pictured, along with graduate curatorial assistant, Elizabeth McMurchie.

delivered the emptied metal herbarium cabinets from LFCC to GMU, which was also funded through the VNPS award. As each box of specimens was unpacked, specimens were repaired as needed, then barcoded and their label data entered into the LFCC public database: <http://sernecportal.org/portal/collections/index.php>. Some of the specimens use taxonomic names that are no longer recognized by the *Flora of Virginia*, so these will require nomenclatural annotation prior to high-resolution imaging. Consequently, when photographs of all LFCC specimens are posted to the online database, all taxonomic names will be fully updated. Four undergraduate students have been hired to assist with this process using VNPS funds, in part, and will be trained in herbarium curation over the coming year. Once LFCC specimens are fully processed, they will be filed with GMUF specimens where researchers will be able to access them. The combined collection will tally about 80,000 specimens and will comprise the most complete research collection in existence for the northern Virginian flora. ❖

Ancarrow

(Continued from page 1)

million annual visitors to the James River Parks System demonstrate Ancarrow's success while they picnic, hike, and shoot the rapids, yet few of these visitors remember the man. Ancarrow was, however, unable to save his business. It was damaged by a hurricane, and later condemned by the city.

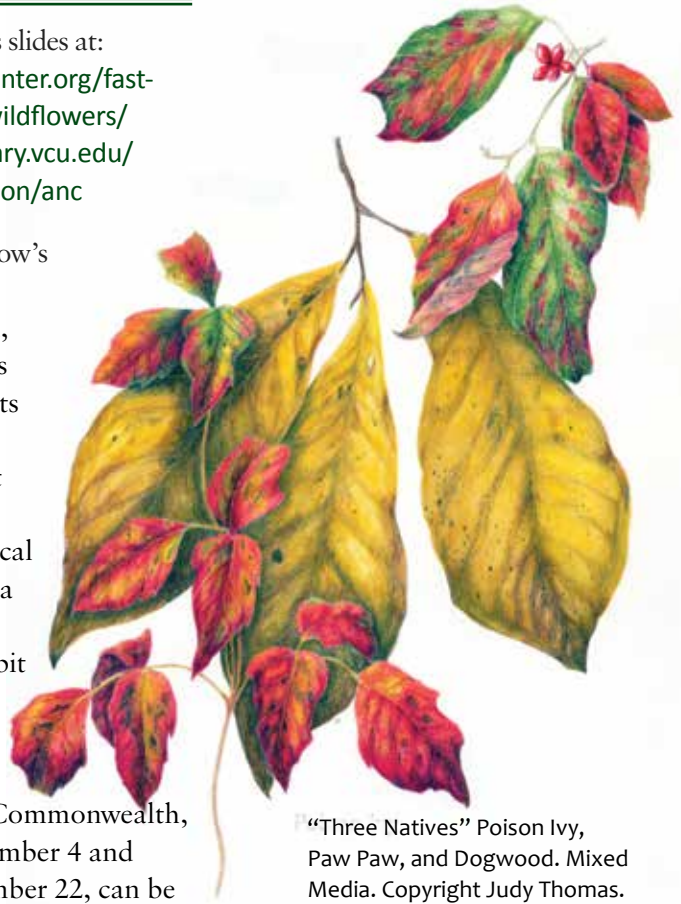
Ancarrow's documentation is considered the most extensive census of plants in the James River Parks System. For example, the list was used by Anne Wright, Director of Outreach, Virginia Commonwealth University's (VCU) Life Sciences Center for Environmental Studies (and VNPS member), to head a citizen-science project in the James River Parks System. This initiative found about 89 percent of plants on this list. This showed the continued existence of native plants, though they have been diminished by invasives, such as English Ivy, Japanese Honeysuckle, Ailanthus, Multiflora Rose, and many others.

Ancarrow's family donated his slides to Lewis Ginter Botanical Garden and, in a cooperative agreement, about 350 slides were digitized by Virginia Commonwealth University. You can read more about

Ancarrow and see his slides at:
<https://www.lewisginter.org/fast-boats-ancarrow-wildflowers/>
<https://digital.library.vcu.edu/digital/collection/anc>

To honor Ancarrow's legacy, the PJRP organized two juried, botanical art exhibits featuring native plants called: "Ancarrow's List: Native Plants at the River's Edge" at Lewis Ginter Botanical Gardens and Virginia Commonwealth University. The exhibit at Lewis Ginter ran through the month of October. The exhibit at Virginia Commonwealth, which opened November 4 and runs through December 22, can be seen on the first floor of the Branch Cabell Library, 902 Park Avenue, Richmond. It is free and open to the public. More information (such as directions, parking) can be found on the Plants of the James River Project Facebook page.

NOTE: Thanks goes to the Pocahontas Chapter for its generous donation; to the American Society of Botanical artists for awarding the



"Three Natives" Poison Ivy, Paw Paw, and Dogwood. Mixed Media. Copyright Judy Thomas.

Esther M. Plotnick Artists' grant; and to both Lewis Ginter Botanical Garden and VCU Libraries for hosting the exhibit. The Plants on the James River Project is a member of the Enrichmond Foundation. (Some of this article was adapted from Blair and Thomas, December 2019, *The Botanical Artist*). The PJRP can be contacted via: PJRPriver@gmail.com. ❖

The Mary Legacy

(Continued from page 6)

Bailey. Following her graduation from high school in Urbana she entered Denison University earning a bachelor's degree and election to Phi Beta Kappa.

Chosen as a Danforth Fellow she pursued graduate studies at Columbia University in New York City where she was awarded a master's degree

in sociology. This was followed by several years of professional work in Manhattan until she and Ted married and moved to Houston, Texas.

Job changes for Ted eventually brought them to northern Virginia, where Mary developed her interest in native plants, was a founding member of the Virginia Native Plant Society, and served as its president for several terms.

Mary was also a "word person." She was a freelance editor for a number of books written by academics.

In 2009 Mary and Ted traded "green" for "brown," moving to Albuquerque to live near family.

Donations in memory of these two important Society founders can be sent to the Virginia Native Plant Society: VNPS, 400 Blandly Farm Lane Unit #2, Boyce, VA 22620. ❖

Flora of Virginia adds Fleming as coauthor

The staff at the Flora of Virginia Project recently announced that Gary Fleming is now a coauthor of the Flora of Virginia. For many, this will not come as a big surprise, because they have enjoyed his keystone chapter in the book and in the app: "The Nature of the Virginia Flora." That chapter presents the processes that have shaped the state's diverse flora. His other chapter, "Learning the Virginia Flora: 50 Sites for Productive Field Botany," invites users to hot spots featuring amazing plants and outstanding ecological community types across Virginia's physiographic provinces.

Gary is a senior vegetation ecologist with the Virginia Natural Heritage Program, Virginia Department of Conservation and Recreation, where he has worked since 1992. This experience made him the perfect person to write the crucial habitat and status sections

of the *Flora's* species descriptions. He is a past president of the Virginia Botanical Associates, which powers the Digital Atlas of the Virginia Flora and is a partner of the Flora Project. An accomplished photographer, Gary has contributed most of the plant

images seen in the Flora App, and his works are the sole color images in the print *Flora*, illustrating his "Nature" chapter. He is involved in selecting and writing habitat information for the 150 or so species that will be added to the App in the next year and a half.



Selfie with Water Tupelo (*Nyssa aquatica*) © Gary P. Fleming

Get Ready for the
VNPS Wildflower of
the Year for 2020
Wild Geranium
(*Geranium maculatum*)



Parting shots: VNPS Annual Meeting

