

*Pennsylvania*

PENNSYLVANIA NATIVE PLANT SOCIETY

# notes

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## Native Pawpaw

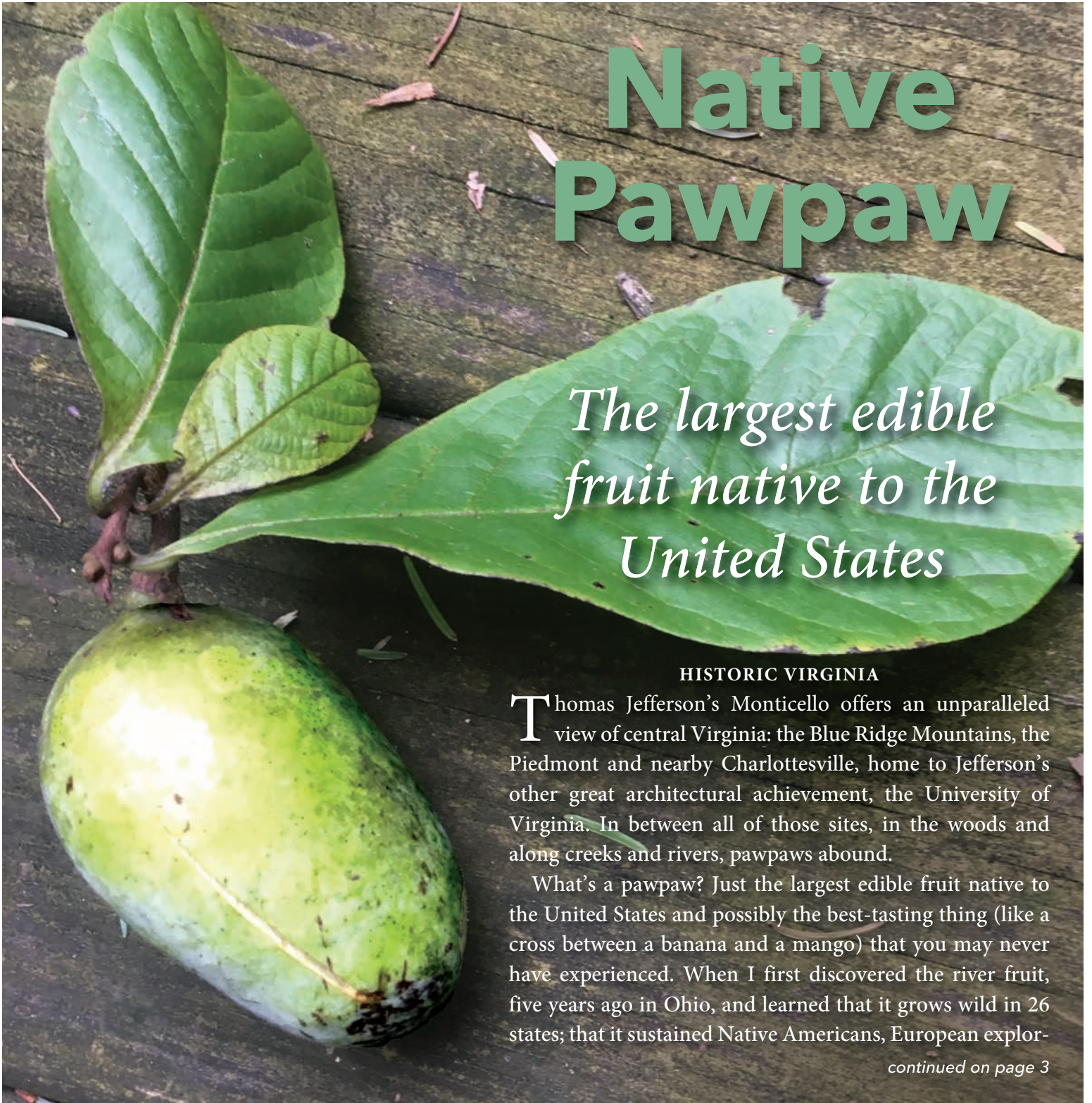
*The largest edible  
fruit native to the  
United States*

### HISTORIC VIRGINIA

Thomas Jefferson's Monticello offers an unparalleled view of central Virginia: the Blue Ridge Mountains, the Piedmont and nearby Charlottesville, home to Jefferson's other great architectural achievement, the University of Virginia. In between all of those sites, in the woods and along creeks and rivers, pawpaws abound.

What's a pawpaw? Just the largest edible fruit native to the United States and possibly the best-tasting thing (like a cross between a banana and a mango) that you may never have experienced. When I first discovered the river fruit, five years ago in Ohio, and learned that it grows wild in 26 states; that it sustained Native Americans, European explor-

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## Dear Members and Supporters,

*“When the world wearies and society ceases to satisfy, there is always the garden.”*

— Minnie Aumonier



This quote on an old greeting card hangs in my kitchen. This summer it rang true like never before. In my front yard, the rain garden that my husband and I had installed a couple years ago seemed to come into it's own this summer, just in time to lift my spirits. It caused me to reflect on how long I had been waiting for this transformation in my suburban landscape. Tiny plants that we had purchased at various native plant sales were reaching a size that would allow me to think about division and expansion. And the sea-

sonal interest was holding as the blooms passed the baton around the bed. Don't get me wrong it is still a work in progress. But it is a progress I embrace with open arms.

Our small volunteer organization, and others like it have played a significant role in raising the public's awareness about native plants — calling attention to their beauty and their importance in our ecosystem. That achievement should give us heart to continue this work despite losses and stumbling blocks; because like my front yard, there is still work to do.

I am excited to introduce three volunteers who have stepped up to join our Board of Directors for the 2018–19 term. Danielle Lanagan will be our new Vice President, Michele Spencer will be our Treasurer and Merrill David will join the board as Recording Secretary. On behalf of the current board, I welcome these new members and look forward to seeing how things evolve with their fresh perspectives.

Our recent election also saw the approval of changes to our Bylaws. These changes were proposed to ensure the sustainability of our leadership. And I am happy to announce that our membership has voted to give these changes a chance. For many years

our board has functioned like an executive committee. Expanding the board will help bring new ideas, ease the division of work, and act as a pool for future officers of the executive committee. Additionally, the new hierarchy of the Presidency creates a progression of roles from Vice President to President to a new position, Past President. This hierarchy will provide continuity in the executive with a 6-year commitment; while also allowing for team minded leadership and support. I strongly believe that these changes will help our board stay fresh and enthusiastic for the work ahead.

With the changes, our board will grow to at least 9 voting members with the potential to add up to 5 additional non-voting members. Non-voting members will be appointed and act as advisors providing expertise on particular topics or acting as liaisons with other organizations. Some of these non-voting members will be appointed over the coming year. And we will be looking for candidates to serve as voting members to join in the 2018 election year. If you would like to get involved with PNPS, by joining our Board of Directors please email me at [President@panativeplantsociety.org](mailto:President@panativeplantsociety.org).

Sincerely,

*Jean Najjar*  
Jean Najjar

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### OFFICERS AND DIRECTORS – 2018-2019

President .....	Jean Najjar
Vice President .....	Danielle Lanagan
Corresponding Secretary .....	Diane Albright <a href="mailto:Correspondence@panativeplantsociety.org">Correspondence@panativeplantsociety.org</a>
Recording Secretary .....	Merrill David
Treasurer .....	Michele Gauger
Directors at Large .....	Falene Hamilton Pam Ford

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## 2017 PLANT FESTIVAL AND SALE

In spite of less than favorable weather conditions (cold and rainy) this year's Central Pa Plant Festival was a success with close to 600 people attending. Although not as many as last year, those that did attend came to buy and talk and learn — and that's the whole purpose!

**Mark your calendars for next year's festival** — May 5, 2018. Due to unavailability of the Military Museum, we have moved across the street to the [www.boalmuseum.com](http://www.boalmuseum.com) Boal Mansion grounds. Not only are they advocates of native plants, they are partnering with us to provide more activities/talks — we will keep you posted. The Mansion provides us with the same visibility/exposure as well as plenty of vendor and visitor parking space. So we are excited and hope you will enjoy it as well. If you are interested in helping with the planning and/or volunteering the day of — please, let us know! You can contact us at [Info@PaNativePlantSociety.org](mailto:Info@PaNativePlantSociety.org)



# Native Pawpaw

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ers, presidents and enslaved African Americans; that it requires no pesticides or herbicides to thrive; and that it contains powerful anticancer agents, I wondered: Why do so few people these days know about it?

On my quest to answer how pawpaws went from importance to obscurity, and whether there is a chance to reverse that trajectory, I traveled from the Ozarks to Monticello, to North Carolina, Louisiana, Illinois and more to gather pawpaw lore and knowledge. I also wanted to explore how economic, biologic and cultural forces combine to lead us to eat what we eat, and sometimes ignore the delicious food growing within reach.

I went to Monticello because Jefferson is rumored — as is frequently stated in news articles describing the fruit — to have believed that pawpaws had potential under cultivation. It's a feather in the cap of today's pawpaw promoters, who are growing in number: Jefferson's involvement validates their own claims of its merit.

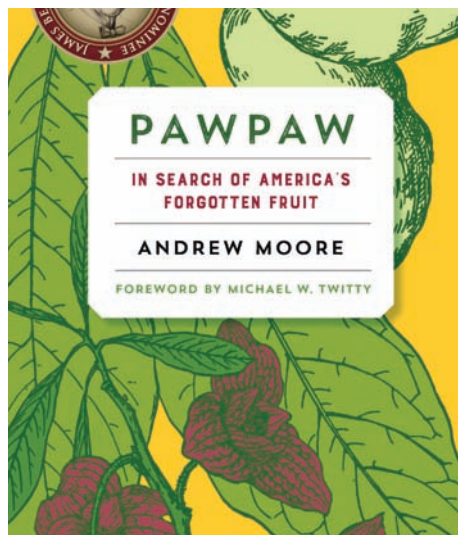
Lewis and Clark's story of subsisting on pawpaws alone for three days might have been of interest to Jefferson, but it's unlikely that it would have been his first introduction to the fruit. The country of Jefferson's youth was filled with wild pawpaws. Later in life, records he kept show *Asimina triloba* (our common pawpaw) as having been planted on his estate. Jefferson also sent pawpaw seeds to associates in Europe, as the plant was considered an exceptional and unique American biological discovery.

In early September 2012, I take a tour of Monticello, a national historic landmark and UNESCO World Heritage Site, hoping to find a pawpaw planting. I begin my search at the re-created kitchen garden, which is full of okra, its hibiscus flowers in full bloom, and beans, squash and tomatoes, neatly arranged in rows on a high terrace behind Jefferson's home. Next, I search his "Fruiterly," which includes a South Orchard of 400 fruit trees, two vineyards and "berry squares" of currants, gooseberries and raspberries. I check Mulberry Row, the site of slave quarters just 300 feet from Jefferson's home, named for the fruit-bearing tree that provided both shade and berries, and I search among his peach and apple plantings, and along sub-mural beds of fig trees. But nowhere is there a trace of pawpaws.

During a group tour of the home I ask our

guide if he knows anything about Jefferson's work with pawpaws, and whether there are any planted here. He checks with another expert and confers, but concludes rather definitively that, no, there weren't any pawpaws here, and that Jefferson didn't cultivate pawpaws in his day.

At the conclusion of the tour, we exit the home and enter the formal gardens. Walking along the west lawn, I admire the small fishpond, and the hedges and trees planted generations ago. And then, just beyond the more formal plantings, I spot it: a pawpaw tree, one of the largest I have ever seen. Even from a distance I can identify the leaves. For a brief moment I think I might have been duped by the similar-looking cucumber magnolia, but the tree is bearing its unmistakable fruit. A few pieces lie in the grass, while others still



cling to branches. The tree has grown in the classic pyramidal pawpaw shape, with one lower branch large enough to climb on — a feat I have rarely encountered anywhere. Although it hasn't produced fruit in abundance, the tree is so large that there's enough for me to gather quite a few. The pawpaws are on average 4 or 5 inches long, larger than most wild fruit. I eat one on the spot: Not excessively seedy, it's sweet but does leave a bitter aftertaste. Nothing too exceptional, but it's here at Monticello, and that seems significant enough.

I can wish, but I don't imagine that this tree, large as it is, was planted by Thomas Jefferson. Pawpaw patches, however, as a single organism, can be incredibly long-lived. Considering this, the large pawpaw tree in front of me could be a clonal offspring, a seedling even, sprouted from dropped fruit of a tree that Jefferson planted in the early 1800s.

Either way, it's a discovery. I show it to a

Monticello Gardens tour leader. "Far out," he says. "You found that here?" More than 27 million people have visited Monticello; on this day, hundreds if not thousands toured the site. Every walking tour of the home ends here, near this tree, and yet it remains unknown. Even here, the pawpaw grows in anonymity.

At the age of 21, George Washington was the first English colonist to venture over the Appalachian Mountains on official order. His military career constantly sent him into the wilderness, where he confronted not only gunfire and cannon blast, but also difficult terrain and inclement weather. Still, it would be misleading to call the woods entirely hostile, as they were abundant with wild fruit, greens and game. If Washington wasn't already acquainted with pawpaws as a boy in Virginia, he certainly would have discovered the fruit on campaigns in the mountains of that state, as well as in Pennsylvania. Everywhere he went was — and remains — pawpaw country. Like Lewis and Clark, the many settlers to follow and the native peoples before him, Washington and his armies would have found this rich fruit a welcome blessing when provisions were low. And in the bottoms of the Potomac River, which his plantation overlooked, among the sycamores and hickories, were also pawpaws.

Today pawpaws are absent from the formal gardens, but they abound in the wild places surrounding Mount Vernon. They're behind the plantation's tobacco barn, where a small stream drains into the Potomac. Along with the pink blooms of swamp rose mallow (and lingering bits of litter) is a scattering of pawpaw trees. Another patch of wild pawpaws grows behind the replica of a small slave cabin. This section of Mount Vernon, called Dogue Run Farm, was home to the hundreds of slaves Washington owned in his lifetime. Pawpaws would have been gathered from these woods and eaten by the nation's first president and his slaves alike.

Near Washington's tomb, just above one of the walking paths, a patch of several large pawpaw trees grows among dark, towering evergreens. Thousands of visitors walk this path every year, with ripe pawpaws growing close enough to fall on someone's head. When I examine the patch I am rewarded with a single, large piece of fruit.

One of the best and most-repeated pawpaw myths says that chilled pawpaw was one of Washington's favorite desserts. I have so far been unable to find any evidence to sub-

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# Goldenseal Research in Pennsylvania



By Grady Zuiderveen

PhD candidate in Forest Resources

Dept. of Ecosystem Science and Management  
Pennsylvania State University

Plants have long played a critical role in treating human ailments in cultures around the world. In North America, early European settlers quickly adopted many natural remedies from the Native Americans that were well accustomed to making use of North America's rich array of natural remedies – many of which grew under the canopy of the vast forested landscape at the time. While herbal popularity faded in the 20th century with the advent of “modern medicine,” it has made a resurgence in recent decades due to public interest in “natural” medicine along with academic interests in new medicinal compounds that can be developed into pharmaceutical drugs.

One medicinal plant that has been particularly popular in North America has been goldenseal (*Hydrastis canadensis*). Historically, Native Americans used goldenseal root for the treatment of numerous maladies including whooping cough, diarrhea, stomachache, tuberculosis, fever, earaches, and general weakness as well as a tonic and wash for inflammation (Moerman, 2003). Among early European settlers, the most common

medicinal uses for goldenseal include an eye wash (hence the common names eye balm and eye root), a bitter tonic, a digestive aid and appetite stimulant, and a treatment for mucus membrane inflammation (Lloyd and Lloyd, 1884). Today, the plant is found in many formulations used to treat numerous ailments, and is known to have antibacterial, antimicrobial, anticancer, and immunostimulant properties (Le et al., 2013).

The harvest of goldenseal from the wild is inherently of concern because it is the underground roots and rhizomes that are harvested, and this can lead to population declines if proper stewardship behaviors are not followed (such as allowing for recovery time between harvests). Over a century ago, there were reported noticeable declines in populations (Lloyd and Lloyd, 1884), and it is common to see statements such as “declining due to excessive collection” in some regional floras today (e.g., Plants of Pennsylvania, 2007). The majority of the root and rhizome used to meet the market demand is,

as far as we know, still dug from the wild (American Herbal Products Association, 2012). Today, goldenseal populations are believed to have been greatly reduced in number due to habitat destruction and exploitation by commercial harvesters (Sanders, 2004). As a result of the long history and continued harvest, goldenseal has been listed in appendix II of the international treaty CITES (the Convention on International Trade in Endangered Species). As such, the US Fish and Wildlife service is tasked with monitoring, and regulating the export of, wild populations — with the responsibility of such tasks mainly being delegated the states in which goldenseal is present.

In Pennsylvania, goldenseal is listed as ‘vulnerable,’ and the Pennsylvania Department of Conservation and Natural Resources (DCNR) continues to grapple with how best to conserve this species and comply with a CITES-driven conservation mandate. Two courses of action that have been identified as viable options for helping sustain goldenseal in the future include locating priority areas on state land for more focused conservation management and promoting forest farming as an alternative for digging the plant from the wild. In order to be successful, both solutions require a comprehensive understanding of goldenseal habitat across Pennsylvania.

Previous work in other states have been unable to determine significant effects of vegetation, land use, elevation and aspect on probability of goldenseal presence or goldenseal density, which was attributed to a limited numbers of populations (McGraw et al., 2003). Further, there seems to be no statistical effect of light, temperature, and humidity on population performance metrics (Sanders and McGraw, 2005). Current opinion on the species is that it inhabits microhabitats with well-drained, moist, calcareous soils, high in organic matter, with pH ranging from 5.5–6.5 and an overstory of deciduous trees including basswood, sycamore, tulip polar, American beech, sugar maple, and oak with an overstory density between 60-80% (Upton, 2001; Sinclair and Catling, 2001; Penskar et al., 2001).

However, more detailed habitat information for goldenseal in Pennsylvania would be useful as goldenseal is near the northern edge of its native range here. Additionally, Pennsylvania is a diverse geographic and vegetative region with numerous physiographic

provinces and forest types. As such, general site descriptions may not appropriately identify what appear to be rather localized habitat niches in the state. Just as importantly, goldenseal is generally regarded as an uncommon species in the state by botanists, with many county-level gaps apparent in the distribution of the species (see map below).

As a PhD student at Penn State, my work is funded by a grant through the Pennsylvania Department of Conservation and Natural Resources Wild Plant Conservation Fund to investigate the long term viability of goldenseal in both public and private forests across the commonwealth and to collect data that may help inform future policy decisions. The results of the study will help guide “conservation thru cultivation” in Pennsylvania and the region by identifying key habitat features that can assist the adoption of forest husbandry and cultivation (agroforestry), which may in turn reduce harvest pressure on wild populations. Results will also help to conserve wild populations by generating a habitat model that can be used, along with existing remote sensing data, to identify potential habitat on public lands for guiding land management. As such, I am looking for any information on potential locations in which goldenseal can still be found in the commonwealth in order to develop the habitat model.

As botany professionals and plant enthusiasts, you are the most likely to know of any goldenseal in your area. Any information you would be willing to share with me in regards to goldenseal in the state would be greatly appreciated as I look to determine where goldenseal is still growing, and under

what habitat conditions. To date, with the help of many private landowners and botanists in the state, I have identified nearly 30 populations in Pennsylvania, so any additional participation could contribute significantly to our current knowledge. If goldenseal is in fact as uncommon as my research thus far seems to suggest, a new state listing status may be appropriate. If you happen to have any information you would be willing to share, or would like to find out more about the study, please email me (Grady Zuiderveen) at gjz5033@psu.edu.

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## Native Pawpaw

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stantiate that claim, but perhaps it’s fitting that the nation’s first president, about whom there are so many legends — the chopping of the cherry tree; the wooden teeth — ought also to have some connection with America’s largest, most impressive native fruit.

But let’s say the story is true. Did he gather pawpaws while out on a fox hunt, or a walk around his estate? How would Washington’s pawpaw have been presented to him? Would his enslaved chef, Hercules, have kept pieces of whole fruit in the ice cellar? And was it wild, or fruit picked from his garden? Perhaps Washington enjoyed slicing the fruit, twisting it open and eating it with a spoon. He might have sucked on pawpaw seeds for every bit of the sweet pulp. Perhaps Hercules scooped it for him, presented it as a pudding in a bowl, seated in ice. Yes, maybe Washington did eat pawpaw by the chilled bowlful each September.

The Charlottesville Farmers Market is a Saturday-morning happening. A massive parking lot that on another day would be a waste of downtown real estate is filled with booths, their vendors selling fruits and vegetables, prepared foods, tacos and more.

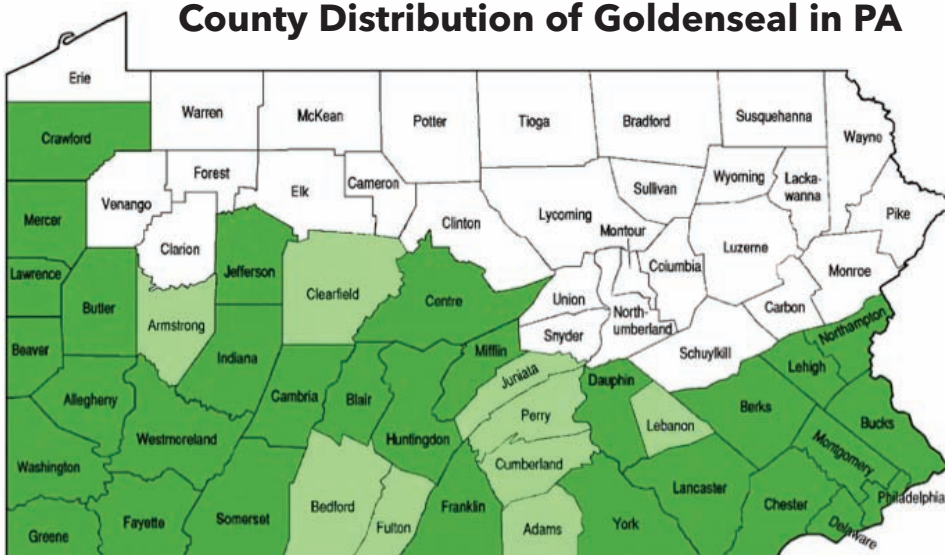
Daniel Perry, who owns and operates Jam According to Daniel, is experienced with all sorts of ripe fruit, from fig, peach and strawberry, to apple, blueberry and raspberry. His jams are displayed in Mason jars at the market, all wrapped in black-and-white labels. One pound of local fruit in every jar, no pectin added.

A friend of Perry’s, experimenting at home, made a pawpaw jam using Perry’s technique. It was a vibrant yellow “fabulous, passion-fruity, pineappley, sort of vanilla-y ...tropical ensemble,” he said. Intrigued, Perry then went to a local wild patch and gathered between 20 and 30 pounds of fruit. After several hours, he processed just a few pounds. So he called it a day, and planned to resume the task the following morning. That’s when he encountered the notorious scent of ripening pawpaws. “It smells like if a perfume factory were an animal, and that animal was roadkill,” Perry says. “It’s just this sweet, sickly sort of smell.”

Pawpaws typically last three to five days at room temperature before, as Daniel observed, they’re unusable and far too over-ripe. His description may be sensational — and to some it’s a pleasant aroma — but as

*continued next page*

### County Distribution of Goldenseal in PA



**KEY**  Documented populations  Sightings  No documentation or sightings

# Fascinating and Toxic – Poison Ivy

By Debra Grim

Minnesota, Michigan, and Ontario have prohibited it as a noxious weed. The Missouri Botanical Gardens declares that it “is the ultimate weed that no one wants” and exhorts us never to touch it, adding that it has no garden application.

The old saw warns: “Leaflets of three, let it be; berries of white, a poisonous sight.” A person can be indirectly infected via a pet, clothing, or garden tool or by breathing smoke from burning poison ivy. I once heard of a woman, herself immune to the effects, who accidentally included the berries in bayberry candles that she made to give her friends, landing them all in hospital after they lit their candles.

Folklore is rife with remedies for the itching and blistering that result when its toxic oil, urushiol, encounters human skin. All parts of the plant contain this oil. Even handling a decades-old dried specimen of *Toxicodendron radicans* can deliver a potent dermatitis. Native American are believed by some to have had a number of medical uses for poison ivy, many of them involving topical application. One Navajo custom supposedly involved presenting chewed poison ivy to a gambling opponent for luck. It is not apparent to me which person gets the good fortune.

Poison ivy has an interesting distribution. It is one of those plants that are found throughout the eastern half of North Amer-



Photo: Ron Arbogast

ica but also occur in eastern Asia. The USDA Plants Database lists six subspecies. Highly variable in form, it can occur as a low ground cover, as tall shrubs, or as high climbing woody vines. The vines are covered in aerial rootlets, giving them a hairy appearance. On sturdy supports the vines can be quite leafy and might be mistaken for tree branches.

The white berries are food for birds and white-tailed deer. Unlike us, these animals are not affected by the toxin. Oddly, only primates and hamsters are known to be susceptible. The berries must pass through a

been learned in the 18th century — do not wait to get your pawpaw on ice.

The distance between historic Colonial Williamsburg and Yorktown is 13 miles via the Colonial Parkway. At least 10 of those miles are lined with a dense and vibrant understory of pawpaws, with trees standing shoulder to shoulder the entire way. Of course I have to stop and go in to find fruit. As I load my hatchback with the first batch of picked-up pawpaws, gathered from the woods there, I am visibly shaking with excitement. It is the largest expanse of fruit-bearing pawpaws I’ve ever walked through. In the residential neighborhoods adjacent to the parkway, pawpaws grow like weeds, popping up in hedges and along unkempt property edges.

We drive farther, toward Yorktown, but I have to pull over a second time for an even larger patch. I fill a small bag and follow a

digestive system to soften their hard coats before the seeds can germinate. The plants also spread by rhizomes.

Poison ivy was among the plants William Bartram introduced to Europe, and it has been grown as an exotic and beautiful curiosity at Kew Gardens and elsewhere. European physicians, impressed by its chemical properties, experimented with medical uses for the plant.

Poison ivy is related to sumacs, mangos, and cashews. Its relatives include other untouchables — poison oak, poison sumac, and the Asian lacquer tree. For centuries the sap of the lacquer tree has been refined into the varnish used for lacquer ware. Once dry, the lacquer does not cause dermatitis, but new workers in the craft learn to protect themselves from urushi-kabure (Japanese for lacquer poisoning). It was a Japanese chemist who identified and named the substance uroshiol.

Poison ivy is far more common today than when Europeans first colonized this country. It thrives in the fragmented landscape we have created. Studies have shown that poison ivy is especially sensitive to carbon dioxide levels, growing more lushly and becoming even more potent as CO<sub>2</sub> concentrations in the atmosphere increase.

If poison ivy has you intrigued, you might enjoy: [www.chemheritage.org/distillations/magazine/no-ill-nature-the-surprising-history-and-science-of-poison-ivy-and-its](http://www.chemheritage.org/distillations/magazine/no-ill-nature-the-surprising-history-and-science-of-poison-ivy-and-its).

deer trail back to the road. Exiting the woods, I pass a giant Southern magnolia — its glossy leaves seeming all the more tropical in this forest of fragrant fruit — only to find a park ranger parked behind my car. “Just picking up pawpaws!” I call out, hoping I’m not breaking any ordinances. I hold up the bag as proof. Thankfully he gives me a wave and lowers himself back into the car, then drives on. I must look like a feverish madman, shaggy-haired, way too wide-eyed and excited, holding a bag of mushy green orbs. But he’s a ranger here; maybe he’s seen this before. Pickin’ up pawpaws.

Later in the evening, at a motel in Williamsburg, I pull one of several dozen pawpaws from the room’s jam-packed mini fridge. The fruit tastes wild, for sure, but not bitter, the texture slightly grainy; fruity and sweet. And chilled, as Washington would have had it.

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## Native Pawpaw

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ripening turns to fermentation, the scent can certainly be overwhelming. Of the ones Daniel gathered in the wild, many had been picked up from the ground — as the traditional song “The Paw Paw Patch” instructs — and were probably bruised and well on their way to being too far gone before he’d even brought them home. His olfactory senses were doomed from the beginning.

That perishability, the pawpaw’s short shelf life, is often cited as the reason pawpaws haven’t been brought under commercial cultivation. There are ways to address that challenge, and many pawpaw growers are succeeding. Nonetheless, it’s true — and if George Washington really did enjoy a chilled pawpaw, we know that the lesson had already

# PNPS Remembers Norm Deno

By Debra Grim



Norm passed away this September at the age of 96. A Professor of Chemistry at Penn State University he spent his spare time dabbling in germination and cultivation of plants. He grew species from around the world on his property in Centre County. No matter how spectacular his garden was at the time of your visit — and it was always wonderful — he typically lamented something even more beautiful that you had just missed seeing. He delighted in experimenting in his simple

home laboratory with ways to coax stubborn seeds into sprouting and was an authority on germination. The second edition of his self-published opus, *Seed Germination Theory and Practice*, appeared in 1993, followed by supplements in 1996 and 1998. These publications are available for download from the USDA website. **Visit resources menu in [www.panativeplantsociety.org](http://www.panativeplantsociety.org).**

## END OF YEAR GIVING

We are seeking to raise \$2,500 for outreach and sponsorship in 2018.

### These funds will be used to:

- Sponsor the PA Botany Symposium and the Native Plants in the Landscape Conference.
- Provide seed money for up to five native plant demonstration gardens.

### Please send your donation to:

PNPS – Outreach  
PO Box 807  
Boalsburg, PA 16827

### Or donate through PayPal at:

[www.panativeplantsociety.org/join-us.html](http://www.panativeplantsociety.org/join-us.html)

## PNPS Membership – When to Renew

Your membership support goes to producing our annual newsletter and supporting programming at our annual meeting. It also helps us to produce and distribute educational and promotional materials at a variety of outreach events. In addition, PNPS uses its funds to support community projects with donations of plants or grants to purchase plants. We sponsor scholarships and educational programming. If you would like to learn more please email Jean Najjar at [president@panativeplantsociety.org](mailto:president@panativeplantsociety.org)

As an organization PNPS has not been as proactive as we should be, reminding our members about renewing. We are going to try to do a better job going forward.

We would like to kick off the coming year by clarifying our membership renewal process and asking you to join or renew today. Your membership expiration date is listed above the address label of this newsletter. If you have questions or think there is a mistake regarding your member status please email Falene Hamilton, our Membership Chairperson: [membership@panativeplantsociety.org](mailto:membership@panativeplantsociety.org)

### RENEWAL

If you are a new member who joined in this current year (2017) or if you are a current member who wishes to renew for next year (2018); your renewal is due by December 31st, 2017. If you are a new member who joined after September 1st of this year (2017) you don't need to renew until December 2018.

### DUES

Membership dues remain unchanged: \$15 for individuals, \$20 for families, \$25 for organizations or businesses, and \$200 for a Life Membership. Since then you have no more worries about whether you are paid up for the year or not! As always, we appreciate your support at whatever level you choose.

### JOIN OR RENEW

Please complete the form below and return it along with your check to the address on the form. **Now you can join or renew online! Visit our website: [www.panativeplantsociety.org/join-us.html](http://www.panativeplantsociety.org/join-us.html).**

## PNPS Membership Form

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Address	
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State	ZIP
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Email	

Check one:

- New Membership  
 Renewal

### Membership Category

Check one:

- Individual — \$15/year  
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 Lifetime — \$200/year  
 Organization — \$25/year

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PA Native Plant Society

Mail to:  
PO Box 807, Boalsburg PA 16827

As a 501c-3 non-profit educational organization, PNPS welcomes your contributions in addition to, or instead of, regular membership. Ongoing memberships in PNPS coincide with the calendar year. Please make sure that you inform us of your current email address. Newsletters and event notices are sent electronically. Send email address and change of addresses to [Correspondence@PaNativePlantSociety.org](mailto:Correspondence@PaNativePlantSociety.org). Thank you!



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***Orontium aquaticum***, Goldenclub (This plant is on Pennsylvania's endangered watchlist)  
Photographer: Kathleen Engle • Location: Pine Grove Furnace State Park, May 2, 2017



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## 2018 EVENTS

- JANUARY 13** Botanical Digitizing Workshop with Sarah Chamberlain, PAC Herbarium, Penn State University University Park, PA
- JANUARY 27** Milk Jug Mini-Greenhouses Propagation, Workshop with Pam Ford – State College, PA Location to be determined
- FEBRUARY 10** The Designing the Native Landscape with Justin Wheeler, 10AM-12PM, Location: TBD – State College Area
- FEBRUARY 17** Winter Twig ID Walk with Shari Edelson, The Arboretum at Penn State, University Park, PA (Rain Date: February 24)
- MARCH 9** Landscape Problems? There's a Native Plant for That! With Justin Wheeler and Friends, 10AM-12PM, Location: TBD –State College Area
- MAY 5** Central Pennsylvania Native Plant Festival, Boalsburg, PA
- JUNE 6-9** Native Plants in the Landscape Conference presented by Bowman's Hill Wildflower Preserve at Millersville University
- JULY 10** Demystifying Grasses Workshop – Terry Wentz Education Center, Canoe Creek State Park, Hollidaysburg, PA
- AUGUST 5** Grass, Sedge and Rush Walk – Led by Sarah Chamberlain, Curator of Rothrock site (Beaver Pond off of Pine Swamp Road in Rothrock State Forest).
- SEPTEMBER 22** PNPS Annual Meeting, State College, PA

For more information on these and other events please visit our website:

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