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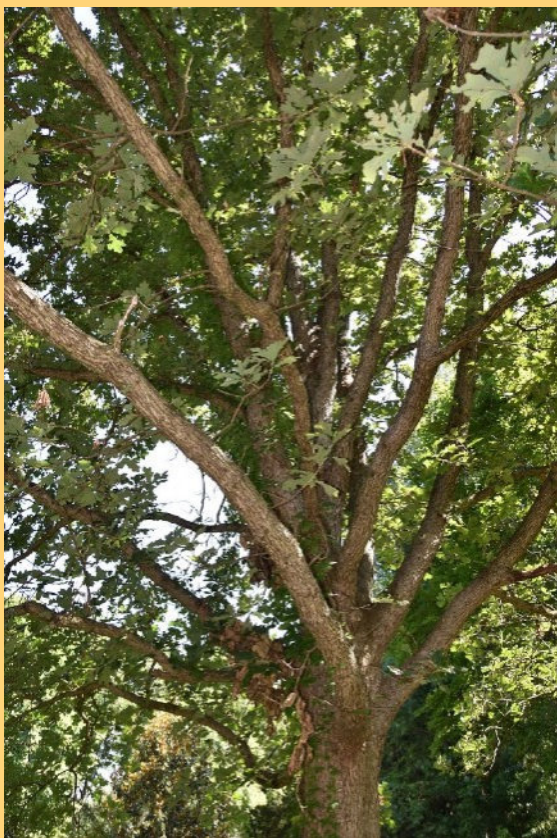
# POTOWMACK NEWS

*Potowmack Chapter of the Virginia Native Plant Society*

VOLUME 40, NO. 5, NOV-DEC, 2022

## *The Mighty Oak Hybrids*

By Donna Murphy



FERNOW'S OAK, QUERCUS X FERNOWII. ALL PHOTOS IN THIS ARTICLE BY DONNA MURPHY

For years I had an unidentifiable (to me) oak tree in my backyard. It had been planted by the builder of the houses in my neighborhood who promised each homeowner four trees per lot, transplanted with a large tree spade from property designated for future development. One of the four planted in my yard survived and has matured in the 40 years since.

I thought it might be a Post Oak (*Quercus stellata*) but others thought it was a Common White Oak (*Quercus alba*).

I didn't think I would ever find out the oak's identity for sure until I was on a walk with Rod Simmons recently, when he pointed out a white oak hybrid, which looked exactly like the mystery oak in my yard. A tree known as Fernow's Oak (*Quercus x fernowii*) is a hybrid of the Common White Oak (*Quercus alba*) and the Post Oak (*Quercus stellata*).

I knew oaks could hybridize naturally in the wild, but didn't dream I had one in my backyard! Within the two groups, white and red, white oak species can hybridize with other white oak species and red oak species can hybridize with other red oak species. But whites and reds do not hybridize with each other.

CONTINUED ON PAGE 4

## Upcoming

### Potowmack Chapter Annual Meeting in person at Green Spring Gardens' Horticulture Center

Sunday, Nov 13, 1:00 pm

1:00 pm: Social Time  
 1:30 pm: Annual Business Meeting: election of officers, discussion & vote on 2023 budget  
 2:00 pm: Program by **Jim McGlone**, Urban Forest Conservationist with the Virginia Department of Forestry: "**My Five Favorite Trees**" — Why trees grow where they do, significant trees for different situations, their importance in the forest, and their potential in your home landscape.

### Annual Winter Solstice Walk

Sunday, December 18, 10 am-4 pm  
 Chapman Forest, Chapmans Landing Rd, Indian Head, MD

Led by Rod Simmons and a host of others. Registration not required. Co-sponsored by Maryland Native Plant Society, Virginia Native Plant Society, and Botanic Society of Washington on a site registered with the Old-Growth Forest Network. Carpooling recommended. See more in p 2

### Charles Smith: Half Earth: Investing in our Future

Thursday, Jan 12, 2023 7:30-9 pm  
 Green Spring Gardens Horticulture Center- in person unless we can't.

To preserve our planet's biodiversity and sustain our own lives in the future, it is estimated that we need to restore 50% of the habitable land on Earth, planting trillions of plants back into their native ranges, or better, helping the plants to spread themselves. Come learn what you can do, what we can do together, and what is being done to implement ecological restoration in Virginia and around the world.

All events are free and open to the public. Walks require preregistration. For email notices of upcoming events, subscribe to <https://vnps.groups.io/g/potowmack>. Or send a blank email to [potowmack+subscribe@vnps.groups.io](mailto:potowmack+subscribe@vnps.groups.io)

## Manage your VNPS Membership Online

1. Go to <https://vnps.org/myaccount>
2. Enter your VNPS member username. This is usually your email address.
3. If you don't know or have forgotten your password, click on "Forgot Password?"
4. Once logged in, you can manage your account and preferences by clicking on "What would you like to do?" in the upper right-hand corner.
5. Select "Update My Profile Information."
6. To request a paper newsletter, at the bottom of your Profile Information, set "Electronic Distribution" to "No."
7. Update any other profile information, then click "Submit."

## Annual Winter Solstice Walk



Rod Simmons writes: It is with sadness that I inform you that Lou Aronica died on Friday, October 7, 2022. He was in an assisted care facility in his hometown of Tower City, Pennsylvania for the past 6 months or so. He was nearly 90 years old.

Our traditional Winter Solstice Walk this year at Chapman Forest on December 18<sup>th</sup> will be dedicated to Lou - a founding member of the Maryland Native Plant Society and someone who spent countless hours in the field helping to document irreplaceable natural areas like Chapman Forest.

Aronica says that protecting local plants isn't so different from protecting local rights. "Much of my life centers on what you get mad about," he says. "Things can happen that you don't get mad about, or you may be totally oblivious to it. But then you finally see something and you say, 'Wait a minute, this really isn't right.'" **PHOTO BY ROD SIMMONS.**

## Old-Growth Forest Network

As of June 9, 2022, Monticello Park in the City of Alexandria is now part of the Old-Growth Forest Network, an effort to locate and designate a protected forest in each county of the country that is capable of supporting a forest. They guess over two-thirds of US counties can qualify. The forests in the Network must be open to the public and protected so that if they are not truly old-growth now, they have the space and time to become one. Glencarlyn Park in Arlington is the only other designated Old-Growth Forest in Northern Virginia. Other nearby designated Old-Growth Forests are at the Gold Mine Tract in Montgomery County, MD, Chapman Forest Wildlands in Charles County, MD, and Crows Nest Natural Area Preserve in Stafford County, VA. [oldgrowthforest.net](http://oldgrowthforest.net) allows you to read something about each forest including directions to visit it — at least for the ones that have been part of the Network for a while. When I looked, Monticello Park's description was not yet posted.

## Potowmack Chapter Board Officers

### President

Alan Ford 703-732-5291

### Vice President

Mark Murphy

### Secretary

Jen Brown

### Treasurer

Scott Knudsen

### Committee Chairs

#### Botany

Nelson DeBarros

#### Conservation

Rod Simmons

#### Membership

David Gorsline

#### Newsletter

Margaret Chatham

#### Programs

Suzette Risacher

#### Propagation/Plant Sales

Laura Beaty

#### Site Registry

Rod Simmons

#### Technology

Mark Murphy

#### Members-at-Large

Judy Dority

Margaret Fisher

Donna Murphy

Marty Nielson

#### Vacant:

#### Education

#### Publications

#### Publicity

#### Social Media

#### Walks

Submissions to *Potowmack News* may be sent to The Editor at [vnps.pot@gmail.com](mailto:vnps.pot@gmail.com)

**Potowmack Chapter  
Virginia Native Plant Society**

**P.O. Box 5311**

**Arlington, VA 22205**

**<http://www.vnps.org/potowmack>**

**Potowmack Chapter Annual Meeting will be held Sunday, Nov 13, 2022 at 1:30 PM, in the Horticulture Center at Green Spring Gardens Park. If you cannot attend to vote then, please send in this ballot by Nov 4 to Potowmack Chapter VNPS, PO Box 5311, Arlington, VA 22205, or email your vote to vnps.pot@gmail.com**

### ELECTION OF OFFICERS FOR 2023

The Board of the Potowmack Chapter VNPS presents the following slate of officers for the 2023 year, with terms beginning January 1. Contact Alan Ford for further information at amford@acm.org

#### SLATE OF OFFICERS

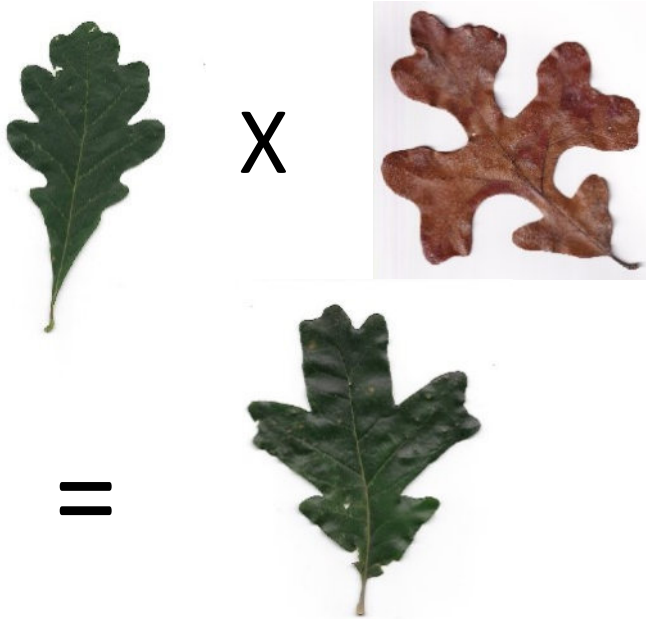
**President:** Alan Ford **Write-in** \_\_\_\_\_  
**Vice President:** Mark Murphy **Write-in** \_\_\_\_\_  
**Secretary:** Jennifer Brown **Write-in** \_\_\_\_\_  
**Treasurer:** Scott Knudsen **Write-in** \_\_\_\_\_

	Final Approved FY22 Budget	Board- Approved FY22 Amended Budget	Proposed FY23 Budget	Notes
<b>INCOME</b>				
Donations	\$ 600	\$ 600	\$ 900	FY23 increase based on 2021 total of \$940.
Member dues	\$ 5,500	\$ 5,500	\$ 6,100	FY23 increase based on 2021 total of \$6270.
Sales	\$ 11,000	\$ 18,000	\$ 20,000	FY22 increase per Board discussion of revenues on 7/7/22. FY23 increase based on significantly higher FY22 sales.
<b>Total income</b>	<b>\$ 17,100</b>	<b>\$ 24,100</b>	<b>\$ 27,000</b>	
<b>OPERATING EXPENSES</b>				
Administrative	\$ 500	\$ 500	\$ 500	
Green Spring room fees	\$ 2,500	\$ 500	\$ 2,000	FY22 decrease based on one in-person meeting planned. FY23 allows for in-person meetings throughout the year.
Membership development	\$ 200	\$ 200	\$ 200	
Programs - talks	\$ 1,200	\$ 1,200	\$ 1,200	Speaker fees for 8 talks.
Programs - walks	\$ 900	\$ 900	\$ 900	Guide fees for 6 walks.
Newsletter printing and mailing	\$ 2,500	\$ 2,500	\$ 2,500	Five newsletters averaging \$475 each.
Green Spring internship	\$ 3,700	\$ 3,750	\$ 3,800	FY22 increase to reflect actual cost of Green Spring internship.
Huntley Meadows internship (1 of 2)	\$ 500	\$ 3,000	\$ 3,500	
Additional third internship (Site TBD)	\$ - 0	\$ - 0	\$ 3,500	Budget Advisory Committee (BAC) ecommendation for FY23.
Commissions to Green Spring	\$ 1,760	\$ 2,880	\$ 3,200	FY22 sales significantly higher. Commission is 15% of sales.
Plant sale Virginia Sales Tax	\$ 660	\$ 1,080	\$ 1,200	FY22 sales significantly higher. Sales tax is 6% of sales.
Printing/publications	\$ 200	\$ 200	\$ 500	FY23 increase to account for restocking of publications.
Propagation beds at Green Spring	\$ - 0	\$ 3,000	\$ 2,000	FY22 new line item for maintenance and improvements at Green Spring. FY23 BAC recommendation of \$1,000 increased to \$2,000.
Supplies & Materials/Miscellaneous	\$ 480	\$ 1,890	\$ 1,000	FY22 increase to recognize additional expense for this line item.
Special board actions	\$ 2,000	\$ 2,500	\$ 1,000	FY22 add \$500 donation toward printing 4th ed Plant NOVA Native Guides.
<b>Total Operating Expenses</b>	<b>\$ 17,100</b>	<b>\$ 24,100</b>	<b>\$ 27,000</b>	
<b>BOARD-APPROVED EXPENSES AGAINST SAVINGS</b>				
Huntley Meadows internship (2 of 2)	\$ 2,500	\$ - 0		Portion of \$3K Huntley Meadows internship
New Scholarships	\$ - 0	\$ - 0	\$ 6,000	FY23 BAC recommendation: fund two scholarships at \$3,000 each, or three scholarships at \$2,000 each.
<b>Total Expenses Against Savings</b>	<b>\$ 2,500</b>	<b>\$ - 0</b>	<b>\$ 6,000</b>	
<b>Total Expenses</b>	<b>\$ 19,600</b>	<b>\$ 24,100</b>	<b>\$ 33,000</b>	
<b>Total Income less Total Expenses</b>	<b>\$ (2,500)</b>	<b>\$ - 0</b>	<b>\$ (6,000)</b>	

NOTE: FY22 Amended Budget changes are highlighted in yellow. Please see the Notes for the Board's rationale in amending the FY22 budget.

I approve \_\_\_\_\_ disapprove \_\_\_\_\_ the 2023 budget.

## MIGHTY OAK HYBRIDS CONTINUED FROM PAGE 1



WHITE OAK (*QUERCUS ALBA*) CROSSED WITH POST OAK (*Q. STELLATA*) YIELDS FERNOW'S OAK (*Q. X FERNOWII*)

An article by "Botany Bill" (Bill Harms) about the numerous hybrid oaks on the Patuxent Research Refuge explains that hybridization is thought to be due to the influence of human activity, which interrupts the natural barriers that prevent hybridization such as pollination timing, proximity of same species trees, and rejection of foreign pollen by female flowers.

Farming, logging, and other human activities are responsible for isolating individual trees from others of their own species. The tree can then become overwhelmed with pollen from nearby trees of a closely related species with which they would not ordinarily or readily cross.

As with most other hybrid oaks, mature Fernow's Oak can produce viable acorns. These are tiny acorns in small tight clusters, and I have begun to see a few possible seedlings of this hybrid sprout.

Hybridization can be even more complicated. A viable hybrid can backcross with one or another of the parent species, creating progeny that are not clearly intermediate between the two parents. In addition to backcrossing with parents, hybrids can cross repeatedly with other hybrids and backcrossed trees, a process called introgression. This process involves the transfer of genetic information from one species to another because of hybridization and repeated backcrossing. It is even possible for hybrids to cross with a third species, or even hybrids from different sets of parents to cross with each other. The resulting individual trees then have three or more "parents."

Botanists don't fully understand how and why species can easily hybridize yet retain their species identities over long periods of time.

For more information about oak hybridization, see these links:

"Quirky Hybrid Oaks of Patuxent," (<http://blog.botanybill.info/?p=2474>)

"Saul's Oak – A hybrid – *Quercus x saulii*," (<http://blog.botanybill.info/?p=902>)

Hayden, W. John. "Hybrid Oaks: Full of Vexation and Wonder." *Bulletin of the Virginia Native Plant Society* 30, no. 1 (March 2011): 1, 6-7.  
<https://vnps.org/download/11493/>

"Preserving Oak Diversity in Northern Virginia and the Greater D.C. Region, Tree Stewards Arlington Alexandria Training, May 10, 2022," by Rod Simmons  
[https://drive.google.com/file/d/19LiimqW3FG\\_rV5Ztn5NvyWrwd5LZ2Z8E/view?usp=sharing](https://drive.google.com/file/d/19LiimqW3FG_rV5Ztn5NvyWrwd5LZ2Z8E/view?usp=sharing)

"Oaks of Washington D.C. and beyond," by Christopher Puttock  
<https://media.alexandriava.gov/docs-archives/recreation/parks/oaks-of-washington=-d.c.-and-beyond.pdf>

"Hybrid Oaks of North America," by Ernest J. Palmer  
<https://media.alexandriava.gov/docs-archives/recreation/parks/hybrid-oaks-of-north-america.pdf>

## Measuring My Trees by Margaret Chatham

When we bought our house in 1986, one of its strongest attractions was the one acre lot with relatively untouched woods. It had probably been dairy pasture until around 1920, but then forest started to come back. When the house was built in 1980, the owner acted as his own contractor and only cleared as much space as was needed for the house and access.

I worried that we were losing trees from time to time, but was reassured when I counted around 100 canopy trees. So as long as new trees kept growing, I could afford to lose a few sporadically. The most prevalent canopy species when we moved in were Red Maple (*Acer rubrum*) and Tulip (*Liriodendron tulipifera*), with scattered Virginia Pine (*Pinus virginiana*), Black Cherry (*Prunus serotina*), Black Locust (*Robinia pseudoacacia*), and Black Gum (*Nyssa sylvatica*). Disappointingly, there were only three canopy oaks on the property: one each White Oak (*Quercus alba*), Willow Oak (*Q. phellos*) and Pin Oak (*Q. palustris*).

I took a circumference at breast height measurement of a bunch of my biggest trees in 1991. That list recently turned up, so I went out to measure again. The tree with the greatest girth in 1991, a red maple beside a stream (cow shade?), was still the largest, but had increased its girth by less than 20%. All the Virginia Pines were gone, and one of the Black Locusts is standing dead. But the oaks all more than doubled their girths, and I'm pleased that three more, all unidentified red oak species (or hybrids?), that came up from seed are now joining the canopy. My canopy now includes one Black Willow (*Salix nigra*) that came in on its own, and one River Birch (*Betula nigra*) and one White Pine (*Pinus strobus*) that I planted: variety!

So, what's happening in your yard? Is it time to take an inventory or measure some trunks to better understand your trees?

**DYCs**

"Darned Yellow Composites" How many of these do you recognize? These aren't the only DYCs, of course. Answers on page 6. Photos by Margaret Chatham.

1 *Caltha palustris* (Marsh Marigold) 5/19

2 *Chrysopsis marilandica* (Maryland Goldenaster) 10/18

3 *Coreopsis verticillata* (Whorled Coreopsis) 7/16

4 *Helenium autumnale* (Helen's flower) 10/8

5 *Helianthus decapetalus* (Thinleaf Sunflower) 9/4

6 *Helianthus giganteus* (Tall Sunflower) 9/13

7 *Hieracium scabrum* (Rough Hawkweed) 8/10

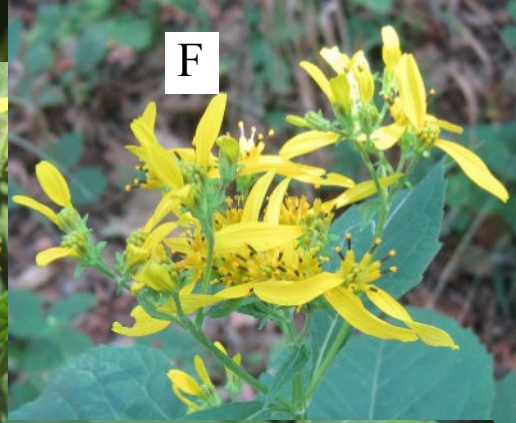
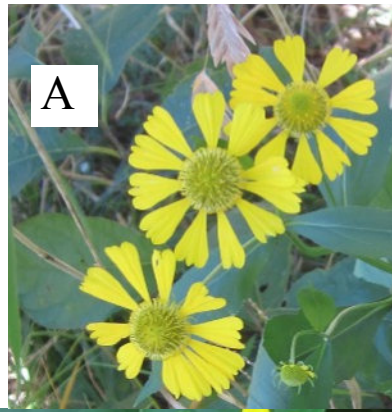
8 *Rudbeckia laciniata* (Cutleaf Coneflower) 8/5

9 *Silphium asteriscus* (Rosin Weed) 8/17

10 *Smilax uvedalis* (Bear's Foot) 7/22

11 *Verbesina alternifolia* (Wingstem) 9/5

12 *Verbesina occidentalis* (Crownbeard) 9/5



## POTOWMACK NEWS

Virginia Native Plant Society  
P.O. Box 5311, Arlington, VA 22205



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## Word of the Month: Composite



*Webster's New Collegiate Dictionary's* definition: "Of or relating to a very large family...of herbs, shrubs, and trees... characterized by florets arranged in dense heads that resemble single flowers." This family was formerly named *Compositae*, now renamed *Asteraceae*. These dense heads often contain central disk flowers surrounded by ray flowers. You can almost see that the ray flowers on this *Silphium perfoliatum* (Cup Plant) are truly flowers and not simply petals.

**PHOTO BY MARGARET CHATHAM.**

Answers to quiz on page 5: 1-L; 2-B; 3-H; 4-A; 5-I; 6-K; 7-G; 8-D; 9-C; 10-J; 11-E; 12-F. These last two really need the leaves to identify them, but Crownbeard tends to have fewer ray flowers than Wingstem, & to look more unkempt.