

WINTER

POTOWMACK NEWS

Potowmack Chapter of the Virginia Native Plant Society

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2022 Winter Solstice Walk

By Katy Johnson



JOHN PARRISH WITH OLD AGE NYSSA SYLVATICA, BLACK GUM. ALL PHOTOS IN THIS ARTICLE BY KATY JOHNSON.

2022's annual Winter Solstice Field Trip & Hooley explored Travilah Serpentine Barrens in bright but chilly weather on Dec. 18. The field trip was sponsored by the Maryland Native Plant Society, the Potowmack Chapter of the Virginia Native Plant Society, and the Botanical Society of Washington. Our walk leaders were Rod Simmons and John Parrish.

The Travilah Serpentine Barrens Conservation Park is a globally-rare forested serpentinite community. Most serpentinite barrens are grassy barrens or savannas. One would think that being a globally rare ecosystem, botanized by E. Lucy Braun and her sister, would be worth protecting in and of itself, but it took the state-endangered Potato Dandelion, *Krigia dandelion*, to spur its purchase as part of Montgomery County's Legacy Open Space program, and its designation as a protected Conservation Park.

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Upcoming

Charles Smith Talk

Half Earth: investing in our future

Thursday, January 12, 7 pm

Horticulture Center, Green Spring Gardens

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. 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.

Winter Shrub ID

With Margaret Chatham at Roundtree Park

Saturday, January 14, 10 am-12 noon

Explore the native shrubs Earth Sangha planted years ago, and the invasive exotic shrubs that abound at Roundtree.

Wesley Knapp Talk

Thursday, February 9, 7:30-9:30 pm

By Zoom

Chief Botanist at NatureServe, currently a Ph.D. student under Alan Weakley at UNC

Winter Greens Walk

At Scott's Run with Margaret Chatham

Saturday, February 11, 10 am-1 pm

Evergreens, winter annuals, early-appearing spring ephemerals, whether native or invasive exotic, if it's green now, it's worth seeing.

All events are free and open to the public. Walks require preregistration. To receive email notices about upcoming events, subscribe to our mailing list group at <https://vnps.groups.io/g/potowmack>. You can also send a blank email to potowmack+subscribe@vnps.groups.io.

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Potowmack Chapter Board Officers



Elected at the 2022 Annual Meeting: Mark Murphy, Vice President; Jennifer Brown, Secretary; Alan Ford, President; and Scott Knudsen, Treasurer.

WINTER WEEDING AT FRASER PRESERVE

The usual suspects still need to be removed from Fraser Preserve, and winter is a good time to have at it. Japanese barberry, multiflora rose, Autumn olive, and of course Japanese honeysuckle, garlic mustard and more are ripe for removal. So once again this winter, you are invited to come to Fraser Preserve to be cheerfully destructive of invasive exotic plants, removing fruits first, then getting them out of the ground, using garden forks and weed wrenches, aided by loppers and hand clippers. Margaret Chatham will lead the charge 10 am-1 pm (or whenever you need to leave) on Wednesdays Jan 4, 11, 18, & 25, & Feb 1, 8, 15, & 23; Thursdays Jan 5, & Feb 16; and Mondays Jan 9 & Feb 6 — or however many of these dates have suitable weather and unfrozen ground. Contact margaret.chatham@verizon.net if you want to participate. We'll meet at the gate (north end of Springvale Road in Great Falls), and decide session by session where to work. Dress for the woods and weather, bring heavy leather gloves against the thorns, clippers, loppers, and garden forks if you have them, water, needed snacks, etc. Of course, as we work, we will also note the good stuff we see: grape ferns (*Sceptridium spp.*), ebony spleenwort (*Asplenium platyneuron*), spring beauties (*Claytonia virginica*), crane-fly orchid leaves (*Tipularia discolor*), yellow corydalis (*Corydalis flavula*), and more.

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Submissions to *Potowmack News* may be sent to The Editor at vnps.pot@gmail.com

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SOLSTICE WALK CONTINUED FROM PAGE 1

One of the primary goals of conserving this area is to preserve the rare, threatened, endangered plant species within the park.

John Parrish prepared a list of regionally uncommon woody plants found on the Solstice walk at Travilah Serpentine Barrens - the complete list can be found on the last page of this newsletter.

Some of the regionally uncommon species include Yellow or Shortleaf Pine - *Pinus echinata*, Prairie Willow - *Salix humilis* (found in the power line meadow). American Chestnut - *Castanea dentata* (found in a soapstone outcrop), Swamp White Oak - *Quercus bicolor*, Shingle Oak - *Quercus imbricaria*, Black-jack Oak - *Quercus marilandica*, and Post Oak - *Quercus stellata*.

Travilah serpentinite is a dark grayish green rock that closely underlies the surface and can be seen as outcroppings throughout the area. It is an ultramafic rock that typically weathers to a soil that is high in magnesium and iron, nickel and chromium but low in essential nutrients. The old growth forest appears stunted because the soil is shallow, low in nutrients, and contains elements many plants do not tolerate. These same factors foster many rare plants.

We entered the Conservation Park through a thorny thicket of Greenbrier (*Smilax sp*) co-mingled with tall native grasses, native rushes, mountain mint and Senna to get to



the power line cut. To the right there was a sea of Indian Grass, *Sorghastrum nutans*, blowing gracefully in the wind. To the left was a stand of Chinese Silver Grass, **Miscanthus sinensis*, blown in from the manicured yards of the community we had parked in.

We clambered up the gravel power line access road to enter the forest and make our way to an Upland Depression Swamp, a very rare occurrence in the upper Piedmont. This swamp or vernal pool is home to many amphibians such as marbled salamanders, spotted salamanders and several species of frogs. We could not clearly see them, but our guides tell us there are Blueberries, *Vaccinium spp.*, and Fetterbush, *Eubotrys racemosus*, growing on the hummocks of the fallen trees.

While at the upland depression swamp, we saw an impressively large Black Gum, *Nyssa sylvatica*, the official tree of Montgomery County. We then learned of the great diversity of oaks in the park. There are twelve documented species of oaks within the area, excluding hybrids. We encountered Blackjack Oak, *Quercus marilandica*; Post Oak, *Q. stellata*; Scarlet Oak, *Q. coccinea*; Swamp White Oak, *Q. bicolor*; Pin Oak, *Q. palustris*; Shingle Oak (described as Willow Oak on hormones) *Q. imbricaria*; White Oak, *Q. alba*; Black Oak, *Q. velutina*; Chestnut Oak, *Q. montana*; Northern Red Oak, *Q. rubra*; and Southern Red Oak, *Q. falcata* on our walk. Many were evident in the leaves piled upon the forest floor.

Also present were Hawthorns, *Crataegus sp.* While not uncommon in the mountains, they are rare in Montgomery County. At Travilah, they grow in orchard-like, linear groves among the oaks. A walk participant shared that the loggerhead shrike use the spikes of the Hawthorn to impale their prey. We saw the leaf of either a Frosted, *Crataegus pruinosa*, or a Large-seeded Hawthorn, *C. macrosperma*: they can only be differentiated by their fruits, which were not present.

In the park there are three species of trees that form colonies and grow in groves, Blackhaw, *Viburnum prunifolium*, Wild Crabapple, *Malus coronaria*, and Hawthorn, *Crataegus sp.* [Ed: we also encountered at least one patch of Pawpaw, *Asimina triloba*.]

John Parrish offered an observation for us to ponder as he said, "It is not just what you are seeing, but also what you are not seeing." And we were not seeing Tulip Trees, *Liriodendron tulipifera*, possibly because they need calcium that is missing from the serpentinite soil. There was only a single very large American Beech tree, *Fagus grandifolia*, and a few small American Holly, *Ilex opaca*, which were of some concern that they may increase in numbers and change the existing forest. The area was probably not logged during the Civil War, likely due to the rocks, and the wrong trees. Aerial photos indicate the area has been forested at least since the 1920s. Invasive exotic plants also have a hard time making a living in the serpentinite barrens but Barberry, **Berberis thunbergii*, Japanese Honeysuckle, **Lonicera japonica*, Callery Pear, **Pyrus calleryana*, and Chinese Silver Grass, **Miscanthus sinensis*, are sneaking in.

Trying to avoid stepping on the many Crane-fly Orchids, *Tipularia discolor*, hiding among the leaves, we were led to a fence that keeps people from falling over the edge of a quarry that plunges down 400 feet. At its bottom it is 40 feet above sea level. You could easily see that the bedrock went all the way to the top of the cut, demonstrating the thin soil typical of the barrens. Maryland Department of Environmental Protection tells us "The property began operation in 1955 as the Hunting Hill

Quarry. Over the years it has also been known as the Rockville Crushed Stone Quarry and Bardon Inc. Quarry, and is now called the Aggregate Industries Travilah Quarry. The quarry produces much of the aggregate used in construction for the National Capital Region." Mindat lists 60 minerals found at the site, but its only Commodity listed is Aggregates.

From the Quarry we were led single file through a Greenbrier, *Smilax rotundifolia*, patch and crossed over the headwaters of the Greenbrier Branch River. We paused to look for the now missing Red Mulberries, *Morus rubra*. Red Mulberries have become rare due to a bacterial disease likely carried by the invasive White Mulberry, **Morus alba*.

As we made our way up hill we passed into the contact zone, where the geology changed from serpentinite to soapstone, and the pines became more prevalent. Most notable was the Shortleaf or Yellow Pine, *Pinus echinata*. We also saw Virginia pine, *Pinus virginiana*, as we settled into a lunch and celebration break.



CAROLE BERGMANN WITH POST OAK LEAVES

As we settled into our break, Carole Bergmann wanted to make sure we could all tell the difference between the leaves of the Post Oak and the Blackjack Oak, as well as the difference between the Scarlet Oak and Northern Red Oak leaves.

We then welcomed Winter. Rod Simmons and others offered kind words and memories of Lou Aronica and others no longer with us.

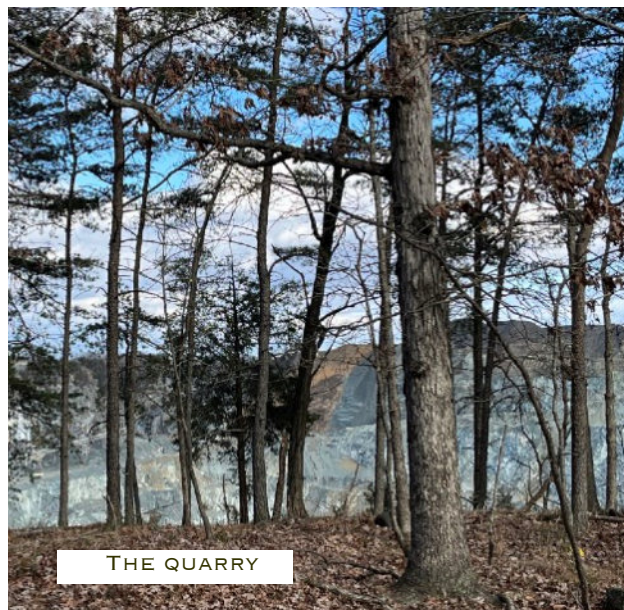
Vince Verweij read Mary Oliver's poem, "Extending the Airport Runway":

"The good citizens of the commission
cast their votes
for more of everything.
Very early in the morning

I go out
to the pale dunes, to look over
the empty spaces
of the wilderness.

For something is there,
something is there when nothing is there but itself,
that is not there when anything else is.

Alas,
the good citizens of the commission
have never seen it,



THE QUARRY

whatever it is,
formless, yet palpable.
Very shining, very delicate.

Very rare."

— Mary Oliver, [A Thousand Mornings: Poems](#)



ELLIOTT'S BROOMSEDGE,
ANDROPOGON ELLIOTTII

With hearts full and spirits high, we made our way back towards the power lines. One last stop at a grove of three Wild Crabapples, *Malus coronaria*.

Crabapples are rare in Montgomery County, and in the Piedmont. They are more often found at higher elevations.

We were able to observe the unique feature of buds coming out of a spine.

Back on the power line trail, we were welcomed with more Indian Grass, Purple Top Grass, *Tridens flavus*, and a large colony of Bracken

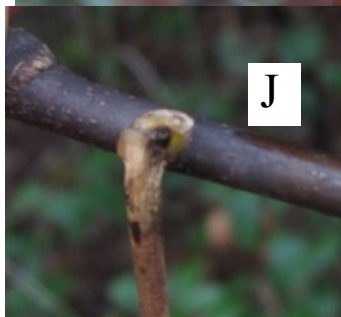
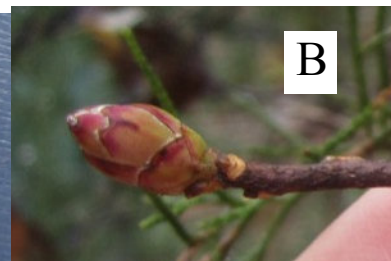
Fern, *Pteridium aquilinum*. As we traveled back down the hill, closer to the community, the natives gave way to escapees of cultivation with **Phragmites australis* towering over us and bringing us back to the reality that we had abandoned for just a few sweet hours in a beautiful, globally rare forest.

Buds

All photos taken on Dec 6, 2022 — some buds change with the seasons, and on this day did not look the way I expected. How many do you recognize?

Photos by Margaret Chatham.

- 1 *Acer rubrum*, Red Maple
- 2 **Cladastris kentukea*, Yellowwood
- 3 *Cornus amomum*, Silky Dogwood
- 4 *Cornus florida*, Flowering Dogwood
- 5 *Corylus americana*, Hazelnut
- 6 *Dirca palustris*, Leatherwood
- 7 *Euonymus americana*, Hearts-a-burstin
- 8 *Hamamelis virginiana*, Witch Hazel
- 9 *Lindera benzoin*, Spicebush
- 10 *Quercus alba*, White Oak
- 11 *Quercus phellos*, Willow Oak
- 12 *Quercus rubra*, Red Oak
- 13 *Rhododendron periclymenoides*, Pinxter Azalea



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Words of the Month: Protandrous/Protogynous



To avoid self-pollination, some plants release pollen before their stigmas are receptive: they are protandrous. Other plants' stigmas go through their period of receptivity before they release any pollen: they are protogynous. Wild Geranium (*Geranium maculatum*) and New England Aster (*Symphyotrichum novae-angliae*) are examples of protandrous flowers. Woodrushes (*Luzula spp.*), Pawpaw (*Asimina triloba*), and Bloodroot (*Sanguinaria canadense*) are protogynous flowers.

Bloodroot photo by Margaret Chatham

Answers to the puzzle on page 5: 1-K; 2-J Yellowwood petioles enclose succeeding buds; 3-L; 4-F Both flower and leaf buds shown; 5-I; 6-D; 7-G; 8-A; 9-C; 10-H White oak buds are much rounder than buds of any of the red oak family; 11-E; 12-M; 13-B This is a flower bud. Leaf buds are much smaller.

**Regionally Uncommon Woody Plants found on the Travilah Serpentine Barrens
(Serpentine Barrens Conservation Park) compiled by John Parrish for the
December 18, 2022 Solstice walk with Rod Simmons.**

Yellow or Shortleaf Pine - *Pinus echinata*

*Prairie Willow - *Salix humilis* (found in power line meadow)

*American Chestnut - *Castanea dentata* (found in soapstone outcrop)

Swamp White Oak- *Quercus bicolor*

Shingle Oak - *Quercus imbricariaria*

Black-jack Oak - *Quercus marilandica*

Post Oak - *Quercus stellata*

Bush's Oak - *Quercus x bushii* (a hybrid of *marilandica* x *velutina*)

Slippery Elm - *Ulmus rubra*

Red Mulberry - *Morus rubra*

Red Chokeberry - *Aronia arbutifolia* (rare in power line wet meadow)

Wild Crab - *Malus coronaria* (colonial)

Cockspur Hawthorn - *Crataegus crus-galli*

*Entangled Hawthorn - *Crataegus intricata* (collected by Clyde Reed in 1967 as *C. straminea*)

Large-seeded Hawthorn - *Crataegus macrosperma*

Frosted Hawthorn - *Crataegus pruinosa*

Pasture Rose - *Rosa Carolina*

*Wild Plum - *Prunus americana* (found in rocky power line habitat)

New Jersey Tea - *Ceanothus americanus*

Shrubby St. John's-wort - *Hypericum prolificum*

Leatherwood - *Dirca palustris* (one site known, but very abundant there)

*Gray Dogwood - *Comus racemosa* aka Swida (in power line wet meadow)

Swamp Sweetbells or Fetterbush - *Eubotrys racemosa* (on hummocks in upland depression swamp)

Fringe-tree - *Chionanthus virginicus*

*** Not observed in recent years**