



The Fringe

Newsletter of the Native Orchid Preservation and Education Society
nativeorchidpreservationeducationsociety.com

March 2020

Letter from the President

President's note:

With the recent time change and our warm weather, I'm beginning to feel like spring is almost here! Spring makes me think of flowers popping up out of the ground and that means orchids will also start popping up!

With the guidance of public health authorities, NOPEs' planned spring events have been cancelled through April. You can still enjoy nature by practicing social distancing and trail etiquette on your own and Ohioans can see three native orchids that have evolved to make use of the winter sun when the trees are bare. *Tipularia discolor* and *Aplectrum hyemale* lose their leaves by the time that they bloom while *Goodyera pubescens* is evergreen.

We have been approved for our 501(c) (3) status! Our status was retroactive to our incorporation date of March 25, 2019! This means that donations for our general operations and for special projects as well as our volunteers' out of pocket expenses after that date are tax deductible to the extent allowed by law. Big thanks to Jan Yates, Ann Tsui and Jeanne Rhinehart for making this happen!

Next month is Ohio Native Plant Month! 2020 is the first year!

I hope to see everyone soon!

Teresa Huesman

NOPEs

Planned hikes and workdays.

Orchids present on these dates are dependent on the seasonal weather variation and some later dates may change. If you wish to attend, let Teresa know-natorchidpes@gmail.com.

March 19 – **CANCELED!** Workday at Cedar Bog with ONAPA 10:30 to 3:30

March 28 – **CANCELED!** Hike at Wahkeena Nature Preserve 10:00 to 3:00 pack a lunch and bring water

May 16 – Dayton Metro Parks

May 23 – Cedar Bog

June 6 – Waterloo Nature Preserve, Michigan

July 17-18 - Hike and membership meeting at Lake Hope. Cabins are reserved and Andrew Gibson is the speaker.

Membership forms for the Native Orchid Preservation and Education Society are available at nativeorchidpreservationeducationsociety.com

NOPES and Appalachia Ohio Alliance (AOA) Meeting

March 7, 2020 at Mercer Woods

Ann Tsui

On March 7, 2020 NOPES representatives met with Steve Fleegal of the Appalachia Ohio Alliance (AOA) to discuss the feasibility of reintroducing or establishing native orchid populations on AOA properties. AOA's conserved lands are concentrated in the Greater Hocking Hills Region and along the Scioto River and Big Darby Creek, with other sites throughout central and southern Ohio. Steve was asked if AOA would welcome NOPES providing and establishing native orchid plants on AOA property. Steve was enthusiastic! He later emailed, "We are very glad of your interest and work in this area and are excited about a productive long-term partnership to help preserve and protect our native orchids."

Steve further noted, "AOA is very interested in utilizing our properties for repopulation of appropriate native orchid species, particularly those that have become rarer and/or extirpated in the region due to habitat losses. We are aware of many that have become rarer and/or lost to our area that would be appropriate to reintroduce or otherwise repopulate. With climate change and land fragmentation and development accelerating in our region, the importance of protecting native habitats and species cannot be overstated."

At the meeting, native orchid species were discussed according to our ability to grow them from seedpods or to purchase from native orchid growers, as well as their chances of successful growth and reproduction.

Candidates are:

- 1) *Platanthera ciliaris* (Steve calls them "Orange Sherbet")
- 2) *Cypripedium parviflorum* var. *makasin*
- 3) *Cypripedium parviflorum* var. *pubescence*
- 4) *Cypripedium reginae*

Of these, a proposal was made to choose 1 or 2 species, place them in 1 or 2 areas out of casual visitor sight but located for ease in monitoring and protection if required.

Steve then invited us to tour AOA nearby lands to assess possible introduction sites. He states AOA has "a variety of sites which contain wetlands, bogs, fens, potholes and wet prairies ... a lot of great and diverse wet and upland forest habitats in this area... Also have some existing grassy wetland areas as well as some grassy / wet field restoration in process that may be suitable for your efforts".

We drove to several sites and viewed various habitats. While hiking at each site, we photographed and documented their habitat characteristics. Many promising spots were found.

This wet area holds promise near our meeting place at the Mercer Lodge in Mercer Woods. Mercer Woods is considered an old growth forest near Rockbridge, Ohio in the Hocking Hills area.





A different area displays a wet forest habitat. It is close to an entrance but secluded from casual visitors.



Deciduous and evergreen trees in an elevated area offer even more diversity to possible habitat selection.



Healthy groups of *Goodyera pubescens* are pushing out from under fallen leaves.



Ken found a *Tipulara discolor* leaf.



Ken also found a seedpod from last year which Steve is photographing.

Our adventure included a harrowing climb up the “crack”, a fissure in rock with fallen leaves on top of slippery mud on the nearly vertical floor. By supporting feet and elbows on the rock sides, we all slowly but successfully inched up about 30 feet to the top. Note that we ALL made it.



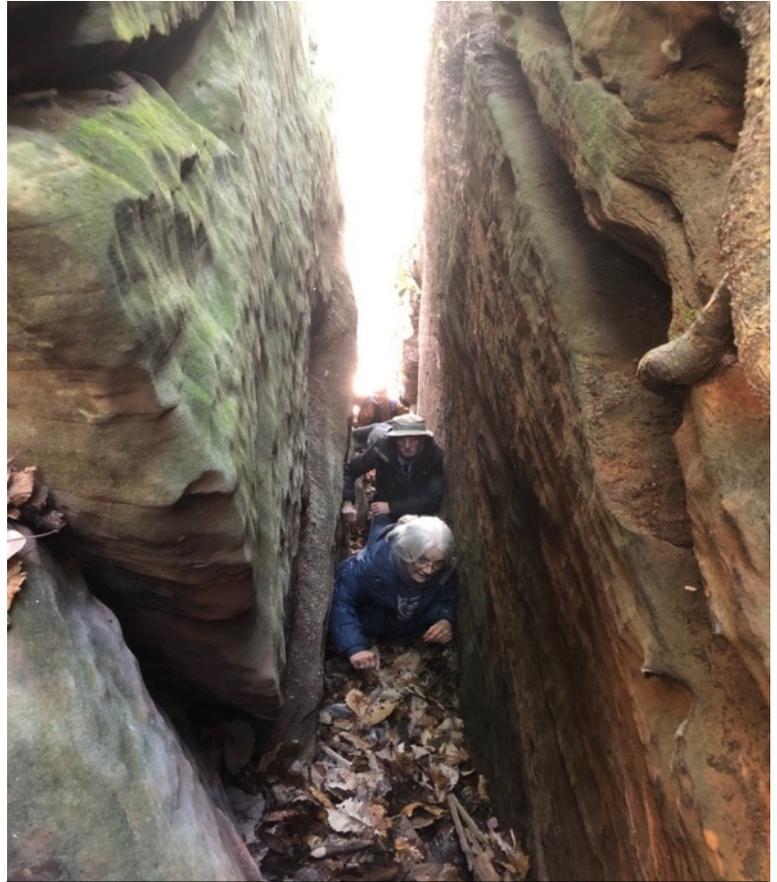
From the bottom, looking up.



Angela using elbows and feet on rock sides.



From above looking down on Jan, Jeanne, Barry, and Ann



Jeanne, despite physical limitations, pushes on.

In summary, the Appalachia Ohio Alliance (AOA) owns land dedicated to conservation. They are delighted to partner with a group like NOPES with a similar mission to preserve, protect and improve populations of endangered or threatened native species.

NOPES plans to begin by planting a few *Platanthera ciliaris* which are currently available, and progress to *Cypripedium parviflorum var. makasin* when these become blooming size from a known grower.

As the northern Hocking Hills area is closer to Columbus than to Cincinnati, we are pleased that some of NOPES members are from central Ohio and can share in the delightful task of monitoring our eventual plantings.

Special thanks to Steve Fleegal for meeting with us and showing us AOA land. Also, thanks to Jeanne and Barry Rhinehart, Angela Carter, Jan Yates, Ken Mettler and Ann Tsui for attending.

NOPES Planting Dormant *Platanthera ciliaris* on Appalachia Ohio Alliance (AOA) Property

March 16, 2020

Jeanne Rhinehart

Ken Mettler, Barry and Jeanne Rhinehart determined and planted 4 clumps of *Platanthera ciliaris* in a moist meadow on Appalachia Ohio Alliance (AOA) Property



Plants will be fenced and monitored.



Orchid of the Month – March 2020

***Aplectrum hyemale* Putty Root Orchid**

Jeanne Rhinehart

Hiking woodland habitats during the winter months and early spring finds few visible green plants among the fallen leaves. When one is lucky, three green orchid plant species may be found on the forest floor - *Tipularia discolor*, *Goodyera pubescens* and *Aplectrum hymale*.

Aplectrum hyemale is commonly called the Putty Root Orchid or the Adam and Eve Orchid. “Putty root” refers to the sticky material formed by crushing the root tubers and mixing with water. This was used by early settlers in America to repair pottery.



Aplectrum flower – Dayton Metro Parks, Ohio

“Adam and Eve” refers to the root corms which usually occur in pairs. Native Americans made a paste from the corms and used it to treat boils and also made a tea from it to treat lung problems. *Aplectrum* comes from the Latin meaning spurless (*Aplectrum* flowers do not have spurs.) with hyemale meaning winter (The single *Aplectrum* leaf is visible during winter months.). In 1905, Gibson¹ reported that people in poor regions of the South would wear the paired corms as amulets. They would use them to tell fortunes. They would place the corms in water. As the ‘Adam’ corm or ‘Eve’ corm would float up, this would determine the possible outcomes – gaining affection, finding work, or living in peace with the neighbors. Cherokee Indians included them in their diet to "endow children with the gift of eloquence"

The plant is easiest to find during the winter months when its solitary leaf (sometimes with a dried inflorescence) appears above the leaf clutter on the forest floor. The flowers appear in May or June after the leaf has disappeared. Plants are usually found in forests of maple and beech. The leaf appears during the winter months when it can receive sunlight and can photosynthesize at temperatures as low as 35°F.



Aplectrum leaf – Red River Gorge, Kentucky



Aplectrum leaves and seed pods - Gladstone, Missouri

To find the flowers in the spring it is almost necessary that you remember where the leaves were located during winter months. Blooming occurs from April through June over its range. Usually less than 10% of the plants producing leaves produce inflorescences. There may be several years that a given plant does not bloom, and some plants go dormant for several years, not even producing leaves. A few of the leaves may still be visible as the flower spike appears. Since the plants may self-pollinate, most blooms produce seed pods. *Aplectrum* may also be pollinated by sweat bees, *Lasioglossum oblongum*. The flowers have a deceptive fragrance that lures the bees.



Aplectrum – Dayton Metro Parks, Ohio

Plant glabrous throughout, 30-35 cm tall. Roots slender, attached to a bulbous corm. Leaf solitary, elliptic, plicate, basal, 12-15 cm long x 6-7 cm wide, upper surface light green with white veins, lower surface lightly tinted with purple. Inflorescence a loose raceme, scapose, with 8-15 flowers, each subtended by an inconspicuous floral bract 2-4 mm long. Lip 10-12 mm long x 5-7 mm wide, generally obovate, 3-lobed, white with purple markings. Petals oblanceolate, 6-8 mm long x 2-2.5 mm wide, greenish-white, tinted with purple, especially at the tips. Sepals 8-10 mm long x 2-3 mm wide, otherwise like petals.²



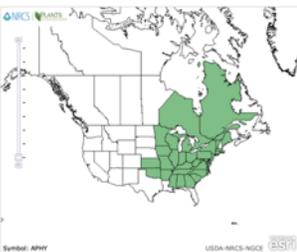
Aplectrum – Dayton Metro Parks, Ohio



Aplectrum alba variety – Fort Hill, Ohio

The roots of the plants can be 1 to 4 individual 1-inch corms connected by thin rhizomes with a new corm produced each spring. The new corm is larger than the older as the older shrinks supporting the new corm's growth. At the base of each corm are fibrous roots. As the roots spread through the surrounding soil, clonal plants can form a colony of *Aplectrum* plants. Individual corms usually live for 2 years. This root system benefits with a symbiotic relationship with mycorrhizal fungi. The fungi are also needed as they enter the cells of the embryo and feed the developing plant.

The preferred habitat is a rich mesic forest of beech, maple, oak, walnut and ash but plants may be found in almost any forest community. It is found over much of the eastern half of North America



Aplectrum is considered federally secure but is endangered in Massachusetts, New Jersey, and New York. It is rare in Pennsylvania, threatened in Vermont and of Special Concern in Connecticut.

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References:

1 *Native Orchids of North America North of Mexico*, Donovan Stewart Correll, Stanford University Press, 1978, p. 315-317.

2 *Orchids of Indiana*, Michael A. Homoya, Indiana Academy of Science, 1993, pp 63-67.

3 Nantahala Natives <https://wildflowergardener.wordpress.com/2014/02/28/aplectrum-hyemale-adam-eve/>

4 USDA Natural Resources Conservation Service
<https://plants.usda.gov/core/profile?symbol=APHY>

Go Botany <https://gobotany.nativeplanttrust.org/species/aplectrum/hyemale/>



Aplectrum corms from Nantahala Natives³