



The Fringe

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

May 2020

Letter from the President

Hello everyone,

We were finally able to have an orchid hike. Ten of us met at Shawnee Backpacking Trail. Maintaining social distancing and wearing our masks, we were able to find *Cypripedium acaule*, the Pink Lady's-Slipper, *Galearis spectabilis*, the Showy Orchis blooming and *Cypripedium parviflorum* var. *pubescens* the Large Yellow Lady's-Slipper in bud.

We will be organizing other hikes in the future and Jeanne is working on Zoom meetings for us. Check website for updates.

Hope to see everyone soon!
 Teresa Huesman



Galearis spectabilis,
 Showy Orchis, Shawnee
 State Forest

In Bloom in May and June in Ohio and Kentucky



Corallorhiza wisteriana
 Wister's Coral-Root



Galearis spectabilis
 Showy Orchid



Cypripedium acaule
 Pink Lady's-Slipper



Cypripedium kentuckiense
 Southern Lady's Slipper



Aplectrum hyemale Putty
 Root



Cleistes bifaria
 Spreading Pogonia



Cypripedium candidum
 Small White Lady's-
 Slipper



Platanthera leucophaea
 Eastern Prairie Fringed
 Orchid



Isotria verticillata Large
 Whorled Pogonia



Cypripedium parviflorum
 var. *pubescens* Large
 Yellow Lady's-Slipper



Pogonia ophioglossoides
 Rose Pogonia



Neottia cordata Heart-
 Leaved Twayblade



Liparis loeselii
 Loesel's Twayblade



Platanthera lacera
 Ragged Fringed Orchid



Liparis liliifolia
 Large Twayblade



Cypripedium reginae
 Showy Lady's-Slipper



Spiranthes lucida Shining
 Ladies'-Tresses



Calopogon tuberosus
 Grass Pink

Shawnee State Park Field Trip – May 2, 2020

- Jan Yates

The more I've hiked Shawnee State Forest, the more it seems like we orchid enthusiasts have a code that would baffle many people. Mention to a colleague that you're hiking Shawnee and they'll ask '3 and 6?' or '1 and 2?' For other friends who are regular hikers/outdoors people/gardeners, I find myself explaining that these are the forest roads so rich in native orchids that you can virtually step out of the car and find them on the roadside. All season long.

So it was that Saturday, May 2nd, I was among the NOPES members who went to '3 and 6' and 1 and 2' looking for the Pink Lady's Slipper, *Cypripedium acaule*, possibly a few early bird Yellow Lady's Slippers, *Cypripedium parviflorum* var *pubescens* and Showy Orchis, *Galearis spectabilis*. Even though I made this trip at a similar time last year and it was a bonanza of orchids, because of the recent cold spell, I didn't know what to expect.

Our first stop was the intersection of Roads 3 and 6 for *Cypripedium acaule* and *Cypripedium parviflorum*. Typically, from the intersection we mosey further downhill on Road 3 and start looking at the edge of the woods. So, we did that ... and saw very little; only a few yellows thinking about blooming.



Cypripedium parviflorum var *pubescens*



Woods below Forest Road 3 with *Cypripedium acaule*

Then we trekked down the slope into the woods below Road 3 at the intersection, where the hardest part of the 'hike' is detangling one's clothes from the scratchy things (aka wild roses) that clutch at us. This patch of woods is a warmup act for Roads 1 and 2 but still delightful. We could see from the road that maybe a couple dozen *Cypripedium acaule* were in full leaf but only a handful blooming.



Not to be deterred, we clambered through the scratchy things, and found these lovelies; a bit short but nonetheless open.

The Nature Center was next, specifically the short trail behind the center where, last year the Showy Orchis, *Galearis spectabilis*, were just past prime when we hiked it. This year, I was hoping for better.

We walked down the trail towards the creek bridge and about midway, one of our group spotted a pair of Showy Orchis in the leaf litter almost at our feet. A few feet further away deeper in the woods were a couple more plants. Some were spotless, some were not. While I was taking pictures of these blooms, the rest of the group walked further around the trail and found two more patches, usually with one or two plants but all within a few feet of the trail. Since they were growing in very shaded areas, it was easy to walk past these clumps; fortunately, we had enough pairs of eyes to spot them.



Galearis spectabilis on the trail behind Nature Center

Typically, *galearis spectabilis* blooms before the forest canopy is fully leafed out, in rich, moist soils, near streams or vernal ponds sometimes in the company of hepatica, spring beauty, trillium and jack-in-the pulpit. Small populations are common as it does not tolerate much competition.

The flashy white lip is the landing platform for its primary pollinator, bumblebees who visit for nectar and leave wearing pollen parcels.



A few of us aspired to look for the Large Whorled Pogonia, *Isotria verticillata*, before we left the trail – we had been told the plant was ‘up’ but not yet in flower. However, our collective recollections of where it was was off base – note to self, take better notes of where you see things – and, after finding ourselves completely off trail, we returned to the Nature Center for lunch. Comparing notes later with friends, it turned out we took a wrong turn from the bridge and, with good weather and another trip in my future in a few days, we may find the pogonia in bloom.

Post lunch, we caravanned to the intersection of Roads 1 and 2 where a magnificent patch of Pink Lady’s Slippers, *Cypripedium acaule*, covers the hillside. The first thing I noticed was someone(s) had removed the road signs from the trees so the intersection was unmarked. (Update 5/15/2020 The signs are back.)

It is, however, a squirrely intersection and recognizable if you have a paper map. Maybe by word-of-mouth, its significance is well known. This particular Saturday it was almost crowded.



While the orchids can be appreciated from road level, they are seen better by walking up Road 2, then down the hillside, taking care not to tread on the plants. Their growth is dense enough that this can be tricky. We were early for prime blooming, the cold weather clearly delaying the blooms and the recent freezing temperatures in the days after our trip, I'm told, has frosted some of the developed buds.



Cypripedium acaule on hillside at Roads 1 and 2

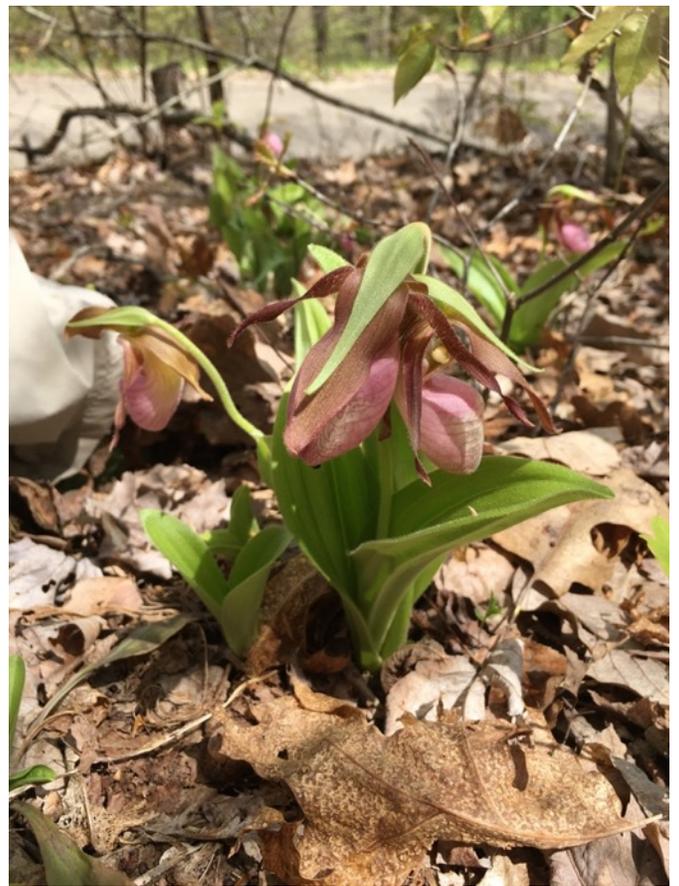




Although *cypripedium acaule* lives in a variety of habitats, this hillside is the classic deep humus and acidic well-drained soil under deciduous trees. Having exited the hillside at times by my hiking shoes sliding down to the roadside ditch, I can report that the soil is regularly damp but well-drained.

Not quite half the *acaules* were in bloom, including this unusual double-flowered one (on right). The patch also has one plant with an all-white flower, although it was not in bloom that day.

The literature says *acaule* is widely distributed across the eastern United States and eastern to central Canada



Just to prove that we are still generalists and not completely orchid obsessed, we saw a few other cool things:



Coltsfoot, past prime, *Tussilago farfara*



Wild pink azalea, *Rhododendron periclymenoides*

Ohio state flower, Wood lily, *Trillium grandiflorum*



My thanks for the company of fellow NOPES members and friends, Teresa Huesman, Matthew and Christa Speights, Kathy McDonald and Ned Keller, Kathleen Tiller, Kathy Shafer, and Edgar Stehli who drove from Cleveland specifically for these sights. For a few hours, it was a treat to remember what hiking among the orchids can be.



**Orchid of the Month – *Pogonia ophioglossoides* (Linnaeus) Ker Gawler,
- Rose Pogonia**

- Jeanne Rhinehart



Pogonia ophioglossoides
Rose Pogonia, Snake-Mouth Orchid
Cranberry Bog, Buckeye Lake, OH
Photo Ken Mettler

The Rose Pogonia is an erect plant with a single stem which can vary in height from 4 inches to 3 feet. The stem has a single clasping simple leaf halfway up its stem. It has one to three rose pink to white flowers. It grows in sunny bogs and height may vary when surrounding growth shades the plants. In some areas, periodic burns are needed to control the growth of surrounding plants allowing the plants to prosper. When the overgrowth is minimal, the plants spread readily by means of rhizome like roots or stolons covering a wide region. At one time it was the most abundant bog orchid in Eastern United States.

Rose Pogonias

Robert Frost - 1874-1963

A saturated meadow,
 Sun-shaped and jewel-small,
A circle scarcely wider
 Than the trees around were tall;
Where winds were quite excluded,
 And the air was stifling sweet
With the breath of many flowers,—
 A temple of the heat.

These were bowed us in the burning,
 As the sun's right worship is,
To pick where none could miss them
 A thousand orchises;
For though the grass was scattered,
 Yet every second spear
Seemed tipped with wings of color,
 That tinged the atmosphere.

We raised a simple prayer
 Before we left the spot,
That in the general mowing
 That place might be forgot;
Or if not all is favoured,
 Obtain such grace of hours,
That none should mow the grass there
 While so confused with flowers.

Plant glabrous throughout, 20-25 cm tall. Roots slender, fibrous, with root shoots from which new plants arise. Leaf solitary on the lower half of the stem, ovate to elliptic, 5-6 cm long x 15-18 mm wide. Inflorescence consisting of 1 (rarely 2) flower(s) terminating the stem. The floral bract foliaceous, oblong-elliptic to lanceolate, 3-3.5 cm long 6-8 mm wide. Lip 15-18 mm long x 5-7 mm wide, pink, spatulate, heavily fringed on the margin, with 3 rows of yellow bristles occurring lengthwise through the middle of the lip. Petals pink, elliptic, 16-17 mm long x 5-6 mm wide. Sepals pink, elliptic-lanceolate, 17-19 mm long x 4-5 mm wide.¹



Pogonia ophioglossoides Cranberry Bog, Buckeye Lake, OH Photo Jeanne Rhinehart

Pogonia ophioglossoides only grows in wetlands throughout most of eastern United States – sphagnum bogs, fens, wet meadows, roadside ditches, acidic swamps and rarely calcareous fens. It occurs at near sea level on the Gulf and Atlantic Coasts, up to 450 feet in Vermont and 2,500 feet in North Carolina.

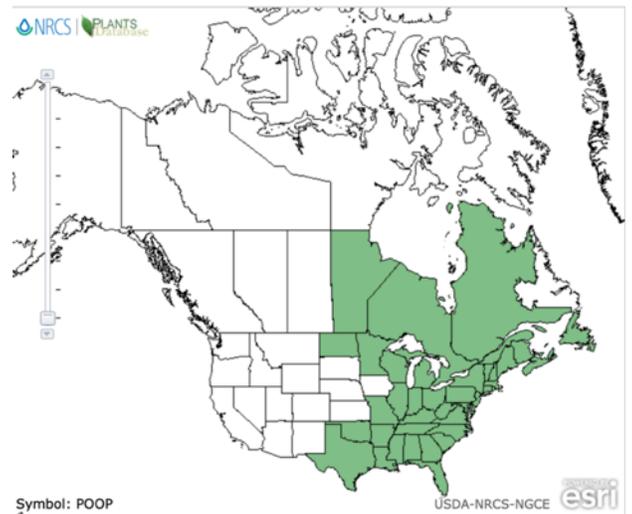
An alba form, *Pogonia ophioglossoides* var *albiflora* is rare but found throughout its range.

Rose pogonias flowers from spring (March) in its southern range to summer (August) farther north.



Pogonia ophioglossoides var *albiflora*

Photo McAdoo, David R.³



Symbol: POOP

USDA-NRCS-NGCE esri

USDA Natural Resources Conservation Service²

It is considered globally secure but is endangered in Illinois, Kentucky and Tennessee; threatened in Arkansas, Florida and Ohio; and exploitably vulnerable in New York.

It is not edible and does not have any known medicinal uses. It has no food value for mammals or birds.

Rose pogonia uses deception for pollination. Its fragrance attracts bumblebees but supplies little reward. It is pollinated mainly by bumblebees *Bombus borealis*, *Bombus fervidus*, *Bombus sandersoni*, *Bombus ternarius*, *Bombus terricola* and *Bombus vagans*. Mostly juvenile bumblebees are the pollinators as they appear to learn from the lack of rewards.



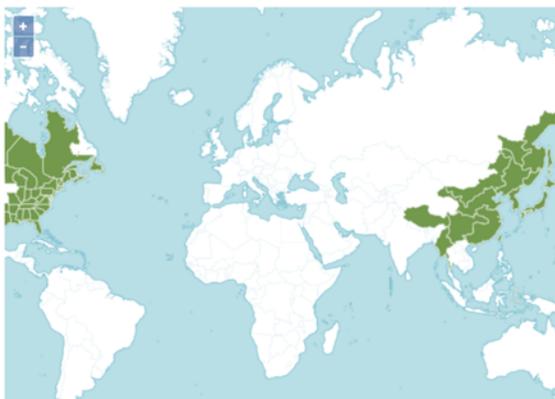
Pogonia ophioglossoides, The Bruce Peninsula. Photo Jan Yates

The plant gets its name, *Pogonia*, from the Greek word *pogon* meaning “haired” or “bearded”. The beard refers to the bearded lip of the flower. *Ophioglossoides* refers to the similarity that Adder’s tongue ferns (*Ophioglossum*) which have a similar leaf halfway up the stem. Both plants live in similar habitats sometimes sharing the same habitat. *Ophioglossoides* is derived from the Greek word *orphis* meaning “snake”, *glossa* meaning “tongue” and *eidosis* meaning “like” that refer to resembling a snake’s tongue. The flower has many common names including Rose Crest-lip, Crested-ettercap, Etter-cap, Crest Orchid, Beard Flower, Snake Mouth, Rose-crested Orchid, Snakemouth Orchid, Snake-mouth Orchid, Sweet Crest-orchid, Adder’s Mouth, Adder’s-mouth Pogonia, Dragon’s-mouth and Adder's Tongue Arethusa.

Another name is Sweet Pogonia apparently a reference to the fragrance of the flower. The fragrance can be strong enough that it is noticeable just walking by the plants. Its scent is similar to raspberries or violets. In *Florida Wild Flowers*, Mary Francis Baker describes the flower’s fragrance “tantalizes with a suggestion of many perfumes.” Henry David Thoreau is thought to have only smelled wilted flowers as he found their fragrance unpleasant. He had two quotes in his journal *Thoreau’s Wildflowers*. (June 21,1852) “The adder's tongue arethusa smell exactly like a snake. How singular that in nature too, beauty and offensiveness should be thus combined. In flowers, as well as in men, we demand a beauty pure and fragrant, which perfumes the air. The flower, which is showy, but has no, or an offensive odor expresses the character of too many mortals.” (June 17,1853) The pogonias, adder’s tongue arethusas, I see nowadays, getting to be numerous, are far too pale to compete with the *A. bulbosa*, and then their snake-like odor is much against them.”



Pogonia ophioglossoides
Cranberry Bog, Buckeye Lake, OH
Photo Ken Mettler



The genus *Pogonia* (Jussieu) has species occurring in North America (*Pogonia ophioglossoides*) and Asia (*Pogonia japonica*). *Pogonia japonica* occurs in China, Japan and the Korean Peninsula. There are now 3 more recognized species: *Pogonia minor* in Taiwan and Japan on Hokkaido, Honshu, Kyushu, and Shikoku; *Pogonia trinervia* in the Molucca Islands; and *Pogonia yunnanensis* in the Yunnan province in China.

From KEW ⁴



Historically most of the Pogonia species listed were only *Pogonia ophioglossoides* and *Pogonia japonica*. Both species occurred over a large portion of North America and Asia respectively. Many writers marveled that such similar species should occur in such far apart regions of the globe.

The Plant List⁷ shows three new Asian species as being accepted species in 2012. They also discuss the 22 scientific names that have been under consideration.

Pogonia trinervia only exists on a few tiny islands and there is no photo reference.

Pogonia japonica grows in wetlands at 3,600–7,500 ft in elevation.

Pogonia japonica, Asian Pogonia,
Aichi pref., Japan
Photo Alpsdake ⁶



Pogonia minor
Nihonmatsu city, Fukushima pref.,
Japan Photo Qwert1234 ⁸



Pogonia yunnanensis ⁹

In North America, “pogonia” commonly refers to the Tribe *Pogonieae* which contains genera *Isotria* (*Isotria medeoloides* - Small Whorled Pogonia and *Isotria verticillata* – Large Whorled Pogonia) and *Cleistesiopsis* (*Cleistesiopsis bifaria* - Spreading Pogonia, *Cleistesiopsis divaricata* - Rosebud Orchid, and *Cleistesiopsis oricamporum* - Small Coastal Plain Spreading Pogonia).



Isotria (*Isotria medeoloides*)
Small Whorled Pogonia
Photo Alex Patton



Isotria verticillata
Large Whorled Pogonia
Photo Jeanne Rhinehart



Cleistesiopsis bifaria
Spreading Pogonia
Photo Angela Carter



Cleistesiopsis divaricata
Rosebud Orchid
Photo NC Orchid ¹⁰



Cleistesiopsis oricamporum
Small Coastal Plain Spreading Pogonia
Photo John Lamey

Pogonia ophioglossoides var. *brachypogon* Fernald is a Canadian synonym while *Arethusa ophioglossoides* Linnaeus 1753 is the historical synonym. *Pogonia ophioglossoides* (Linnaeus) Ker Gawler 1913 is the accepted name.

Rose pogonias are often found growing with *Calopogon tuberosus* - Grass Pink and *Arethusa bulbosa* - Dragon's Mouth. While you almost always find Rose Pogonias growing with Grass Pinks the reverse is not equally true. Grass Pinks can grow in less acidic conditions.



Pogonia ophioglossoides – Rose Pogonia and
Calopogon tuberosus - Grass Pink at the Bruce
Peninsula
Photo Jan Yates



Arethusa bulbosa
Dragon's Mouth
Photo Alex Patton

Hunting for native orchids as you hike the various preserves and wild areas can be a rewarding pastime. As you do, remember these plants need to be protected. **DO NOT DIG THEM UP!** In addition to this being illegal, the plants will probably die. Native orchid habitats provide the pollinators and fungi that the orchids need to propagate and survive. Without their native habitats and related fungi, they will not reproduce, thus setting back their native population. As native populations of orchids disappear, this affects their pollinators and the other animals that feed on the pollinators. Many orchid species are declining due to loss of habitat, varmints and humans destroying plants and habitat, loss of pollinators, and environmental changes.

After pollination occurs, the seed pod forms. The pod is erect and up to 1 in long. When it dries, the pod cracks open and the dust like seeds travel through the air with many landing in the surrounding wetlands. The seeds take root and form new seedlings. *Pogonia ophioglossoides* also grows vegetatively.



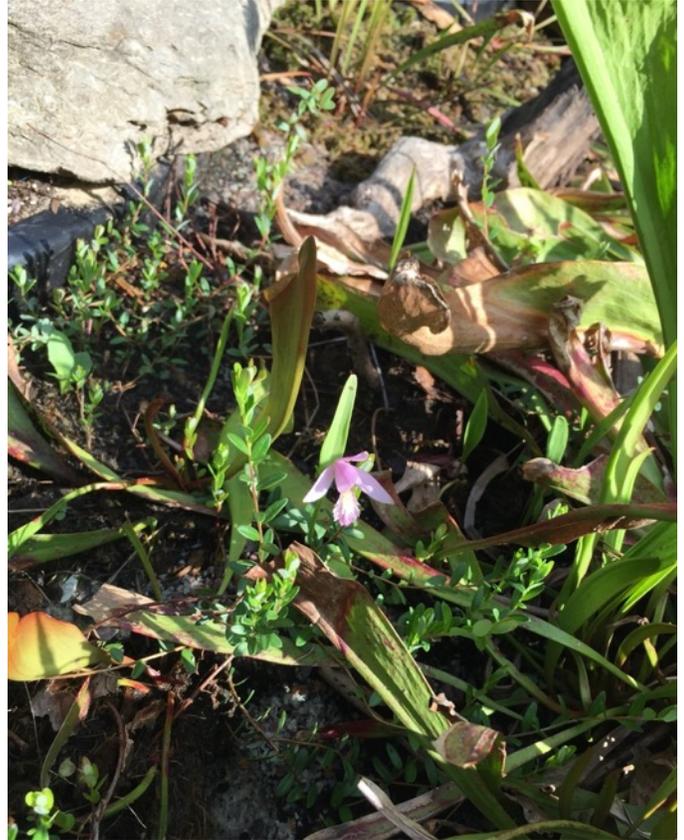
Rose Pogonia Seed Pod
Comstock Bog Meadow, WI
Photo Joshua Mayer ¹¹

The Botanical Gazette has an interesting description of its growth:” it is included on account of the peculiar character of its subterranean system. This is made up of a simple but comparatively extensive root system from which the aerial parts grow. This plant has no rhizome, although the root behaves in a manner similar to a rhizome and forms an effective means of vegetative propagation. Branches proper are lacking in the roots, but one or two new roots are likely to arise adventitiously from the base of each aerial shoot. This entire root is 5-6cm. deep, which is just at the surface of the water in the bogs studied.¹²”

Pogonia ophioglossoides can be grown at home and is available from many legitimate native plant vendors. The roots/rhizomes in vendor sourced plants appear as thin black wired roots.

Any attempt to grow native terrestrial orchids require that you meet their growth requirements.

Pogonia ophioglossoides require that you never let the plants dry out. Also, the medium should be acidic. They also need a cold period in the winter and are NOT indoor plants. They grow best in outdoor, sunny bog conditions. Garden bog conditions should include non-limestone-based river sand, lumpy peat and living sphagnum. They usually don't bloom the first year after planting or division. They grow in Zones 4 to 9.



Pogonia ophioglossoides with cranberries and *Sarracenia*
Home Garden Bog, Cincinnati, OH

References:

1 *Orchids of Indiana*, Michael A. Homoya, Indiana Academy of Science, 1993, pp.187.

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

3 https://www.wildflower.org/gallery/result.php?id_image=15441

4 KEW

<http://powo.science.keew.org/taxon/urn:lsid:ipni.org:names:30001705-2>
[https://commons.wikimedia.org/wiki/Cleistesiospsis_divaricata#/media/File:Cleistesiospsis_divaricata_\(17573786036\).jpg](https://commons.wikimedia.org/wiki/Cleistesiospsis_divaricata#/media/File:Cleistesiospsis_divaricata_(17573786036).jpg)

5 https://commons.wikimedia.org/wiki/File:Pogonia_japonica_s2.JPG

6 https://commons.wikimedia.org/wiki/File:Pogonia_japonica_s2.JPG

7 The Plant List

<http://www.theplantlist.org/1.1/browse/A/Orchidaceae/Pogonia/>

8 https://commons.wikimedia.org/wiki/Pogonia_minor#/media/File:Pogonia_minor_1.JPG

9 <https://www.earth.com/earthpedia/plant/da/pogonia-yunnanensis/>

10 <https://www.flickr.com/photos/wackybadger/28549427244/>

11 <https://www.flickr.com/photos/wackybadger/28549427244/>

12 Botanical Gazette, Volume 72

<https://books.google.com/books?id=C3MWAAAAYAAJ&pg=PA364&lpg=PA364&dq=pogonia+ophioglossoides+propagation&source=bl&ots=KufdLGTiLU&sig=ACfU3U0fKFBMJwRgdaQzJbzyPSnAIKb9bA&hl=en&sa=X&ved=2ahUKEwiL0932k67pAhVmS98KHV6iASc4ChDoATADegQICRAB#v=onepage&q=pogonia%20ophioglossoides%20propagation&f=false>

Native Orchids of North America North of Mexico, Donovan Stewart Correll, Stanford University Press, 1978, p. 149-151

Go Botany <http://goorchids.northamericanorchidcenter.org/species/pogonia/ophioglossoides/>

Lady Bird Johnson Wildflower Center

https://www.wildflower.org/plants/result.php?id_plant=POOP

Orchids of the Western Great Lakes Region, Frederick W. Case, Jr. Edwards Brothers, Inc., 1987, pp. 155-157.

Wild Orchids of South Carolina, James Alexander Fowler, University of South Carolina, 2005, pp. 154 – 157.

Native Orchids of the Southern Appalachian Mountains, Stanley L. Bentley, University of North Carolina Press, 2000, pp. 192-194.