



The Fringe

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

December 2020

Letter from the President

Hello everyone,

It's November and this unusual year is coming to an end. Even with the uncertainty of what 2021 will bring we know one thing for sure, the orchids will be calling us. We're lining up a speaker for the end of January via Zoom. Depending on the weather we will be taking a winter hike to see the leaves of three orchids that we can find in the winter.

Hope to see you all in January!

Teresa Huesman



Aplectrum hyemale
Putty Root



Goodyera pubescens
Downy Rattlesnake Plantain



Tipularia discolor
Cranefly Orchid

January Zoom Meeting

In late January NOPES will have a Zoom members meeting and talk by Dr. John Freudenstein, chair of the Department of Evolution, Ecology and Organismal Biology at Ohio State University. Much of his work is about *Orchidaceae* especially the genus *Corallorhiza*. More information will be emailed.

Winter Hike – February 6 - Wahkeena Nature Preserve

Scheduling hike for Saturday February 6 at Wahkeena with an inclement weather date of February 20. Wahkeena is about 2 hours east of Cincinnati and has all 3 orchids above easily visible along the trails. If interested, email Teresa Huesman huesmantj@aol.com.

Membership

Membership – Jan Yates, Treasurer

Shortly I will be emailing dues forms to members for 2021. NOPES' group hiking activities this year were cut short by the pandemic; but we are plowing forward for 2021, planning group hikes or, if still not possible, providing details on when and where to find native orchids so our members can plan their own solo hikes or hikes within their 'bubbles.' A NOPES membership also supports plant purchases so native orchids can be reestablished into protected areas, honoraria for speakers and safety gear which we use when removing invasive species. NOPES is a 501(c)(3) nonprofit so donations are tax deductible to the extent allowed by law. Please respond when you receive my email (after the holidays) and if you have questions, my email is jyates4110@gmail.com

Ohio Heritage Garden at the Governor's Mansion in Bexley Ohio

NOPES will be managing the Bog Garden in the Heritage Gardens. In 2001 First Lady Hope Taft established the Heritage Gardens on the property of the Governor's Mansion. The purpose of its 3.5 acres was to depict the diverse geological areas and natural ecosystems of Ohio. Managing the bog will give us a chance to highlight Ohio's native orchids.

Letter from the Editor - Jeanne Rhinehart

I would like a do-over for 2020. Through early spring, NOPES' activities included a group hike to Shawnee State Park to see *Cypripediums acaule* and *parviflorum*, a hike on the property of Brian and Donna Wise to see *Liparis liliifolia* and *Liparis loeselii*, a trip to Cedar Bog for members of the Greater Cincinnati Orchid Society to see *Cypripedium reginae* and all of this was possible for a while with mask wearing and social distancing.

And then it wasn't. Though once these formal activities stopped, I couldn't stay home. I and my husband Barry have been hiking, on our own and with friends, for many years so we struck out as our own 'bubble' to revisit habitats within a day's drive. Other NOPES members we knew were doing the same, sometimes solo, sometimes not. At the end of this newsletter are some of those trips. Think of them as a possible preview for 2021 when we can hopefully hike together.

CONSERVATION EFFORTS

Cranberry Bog 2020 Activities - Jeanne Rhinehart

NOPES' members have been back to the bog several times. We traveled there June 14 to see the results of our efforts last year with Ohio Natural Area and Preserves Association (ONAPA) and Ohio Division of Natural Areas and Preserves (DNAP) to remove poison sumac and other woody invasives and to count *Calopogon tuberosus*, Grass Pinks and *Pogonia ophioglossoides*, Rose Pogonias in bloom.



Because of the pandemic we were limited in number and wore masks and social distanced to complete our survey.

It was disappointing to see the amount of regrowth of buckthorn. In the area we previously cut and treated we counted 270 blooming Rose Pogonias and saw a few Grass Pinks. It was peak time for the Rose Pogonias but still early for the Grass Pinks. As this area had been previously heavily shaded before our efforts and the bog was close to drought conditions, the sphagnum and cranberries were not doing as well as we had hoped.



Guy Denny, ONAPA president, hacked a trail to the East Meadow, and we were pleased to see that the invasives were not as bad as along the boardwalk. There were several Grass Pinks in bloom there.



Several members of NOPES returned September 9, October 7 and November 5 to work with ONAPA and ODNR to continue our work removing invasives.

On September 9, Ken Mettler, Jan Yates and Jeanne Rhinehart, joined ONAPA and ODNR members in the east meadow and removed much of the buckthorn and poison sumac. We feel this area has the least number of invasives and will be the area that has the best chance for control as it had the fewest number of invasive plants.



On October 7, Jeanne and Barry Rhinehart joined ONAPA and ODNR members to work on the other side of the boardwalk from last year's work.

On November 5 Jan Yates and Jeanne Rhinehart continued with ONAPA and ODNR members cutting in this area removing some of the larger plants and clearing that side to the tree line.



Levi Miller and other Department of Natural Resources employees started work rebuilding the boardwalk. Since the state lowers Buckeye Lake for the winter, all work is finished here until Spring!

Liparis liliifolia at Dayton MetroParks - Jeanne Rhinehart

NOPES is working with the Dayton MetroParks to reestablish *Liparis liliifolia* using seeds from existing plants, especially the alba variety. Over the last several years, we have observed that the numbers of existing *Liparis liliifolia* plants at Germantown MetroPark have steadily decreased as the forest grows up around them. We have a permit from the MetroParks to collect seeds from existing plants for eventual reintroduction to appropriate locations.

Of the three blooming plants only one produced seed pods for Doug Martin to collect. Doug and Beth Martin are new members



from Kansas City. Doug is experienced in raising native orchids from seed.

Winton Woods *Aplectrum hyemale* Putty Root Orchid - Jeanne Rhinehart

We continued our count of plants and seed pods. Our numbers were down slightly this year. We could only count 7 blooming plants in May and 6 of them had seed pods. This year was very dry.



Mercer Woods *Platanthera ciliaris* Introduction - Jeanne Rhinehart

On March 16, 2020 Ken Mettler and Barry Rhinehart planted four *Platanthera ciliaris* in a region chosen for its habitat to introduce additional native orchids.



In July three of the four plants produced bloom spikes.



By September 25 one of the plants produced seed pods. They were left on the plant in hopes that the seeds would find nearby area conducive for plant growth. Ken Mettler and Doug Martin in photo.



Mercer Woods *Cypripedium* Reintroduction - Jeanne Rhinehart

Having successfully introduced *Platanthera ciliaris* to a wetland area of Mercer Woods, NOPES decided to work with the *Cypripedium*s as they had been previously found in the local regions. We had earlier discussions with Steve Feegal of Appalachia Ohio Alliance to plan the introductions.

Ken Mettler, Ann Tsui, Jan Yates and 3 members of AOA, met on October 31 to plant three blooming size and seven near blooming size *Cypripedium parviflorum* var. *pubescens*. The plants were planted in three locations and enclosed with fencing. Sites were chosen in an area where one plant is known to exist. We also purchased two *Cypripedium reginae* and one *Cypripedium parviflorum* var. *makasin*. Our goal is to plant these at different AOA sites with conditions conducive to their successful reintroduction.



Scouting the best locations.



Preparing the site.



Area is ready for the plants with the topsoil loosened.



The blooming size plants have exceptional roots.



Each site gets 3 plants: 1 blooming size and 2 near blooming size.



The near blooming size looked great too,



Barely covering the plants with topsoil and then leaves to cover the disturbed area so racoons don't notice and come hunting for grubs.



An additional precaution – fencing!



Finally adding the leaf litter and a few dead branches to encourage fungal growth.



Planning the second site.



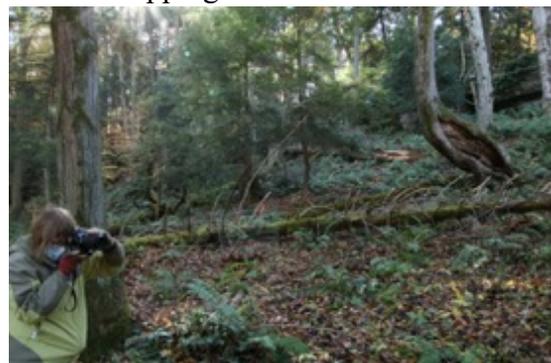
Planting the second group of plants.



Prepping the third location.



Fencing the final group.



Recording our work!

Woody Species Control at Medway Prairie Fringed Orchid Site - Jeanne Rhinehart

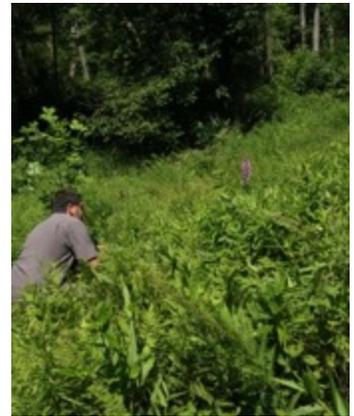
On Tuesday Jeanne Rhinehart and Ann Tsui joined Ohio Natural Area and Preserves Association (ONAPA) and Ohio Division of Natural Areas and Preserves (DNAP) with their habitat management of cutting and treating woody plant species in the area where most of the *Platanthera leucophaea*, Eastern Prairie Fringed Orchid, grow.



NOPEs SCHEDULED ACTIVITIES Annual Meeting and Lake Hope

Before COVID we had planned a stay at Lake Hope State Park. When we had to cancel the stay at the park, we moved the Annual Meeting to Zoom and had Andrew Gibson the 'Buckeye Botanist' give his talk over Zoom on his camping trip in the wilds of Michigan's Upper Peninsula to see amazing native orchids. (And based on his talk, not shave or shower for many, many days.)

We still made an orchid hike available to those who wished to attend using social distancing, driving in individual cars, and wearing masks. The orchids and weather did not disappoint those of us who attended.



Humming Bird Hawk-Moth, *Macroglossum stellatarum*, pollinating *Platanthera peramonea*

We then traveled to Ken Mettler's property to see *Malaxis unifolia*, the Green Adder's-Mouth.



Wise Family Property Trip – Jan Yates

Two of the healthiest populations of *Liparis liliifolia* and *Liparis loeselii* that I have seen locally are protected by Brian and Donna Wise on the property where they live and where Brian grew up. They are NOPES members and around Memorial Day, this year it was June 6th, they opened their property to other members of NOPES and the Greater Cincinnati Orchid Society. The *Liparis*, both of them, grow near each other in the woods, dappled light, lots of mosses, the clumps identified by flags which Brian sets out, so the plants are not inadvertently trampled. He regular walks all of his property (there are other woods and a prairie) locating more orchid species, flagging them as well. The ground was dry this year, but the plants were in good shape; the black snake in his garage was a bonus sighting.



Liparis liliifolia



Liparis loeselii

Cedar Bog Nature Preserve – Jan Yates

Strolling the boardwalk of Cedar Bog Nature Preserve, Urbana, Ohio, is worth the \$5 admission, packing a lunch and taking your friends, even during a pandemic. From spring through fall, the fen (not a bog) is rich with blooming orchids, other unusual native plants, and Ohio's rarer dragonflies.

On Saturday, June 13th, NOPES members escorted members of the Greater Cincinnati Orchid Society through the white cedar forest where *Cypripedium reginae*, the Showy Lady's Slipper, grew in patches at the edge of the savanna. This year, the first *Cyp. reginae* were up in the first days of June and in their prime mid-June; they were easy to spot; so easy, in fact, that going to Cedar Bog next year at that time should be ideal for self-guided tours.

A little harder to find was *Platanthera psycodes*, the Lesser Purple Fringed Bog Orchid



– there was only one good spot to see it from the boardwalk. If you've seen it before, you know to look for the slanted tree trunk in a particular area; if you are one of the scofflaws who left the boardwalk to traipse through the woods for a close-up, you will know the site by the growing patch of branches the bog folks have put there to stop you. A week earlier than this date, the *Platanthera* could not be seen through the vegetation; a week later, when the *Calopogon tuberosus*, Grass Pinks were starting in the sedge meadow, nearly all the buds were open. A new *Platanthera* seedling was growing next to this one, per the bog volunteers.

One advantage of the tour

NOPES members gave was that we knew of other rarities – the poke milkweed, *Asclepias exaltata*, which grows at one of the wooden bridges. The site was textbook: moist, shaded edge of the forest; so was the plant, white aromatic flowers, up to five feet tall. If you packed a lunch, brought a tripod with a long lens, and simply sat on the boardwalk in the sedge meadow, you might have found the elfin skimmer, one of Ohio's rarest Dragonflies. The male is gray, the female is tiger-striped and there are multiple mated pairs living here along with other Odonata.



While Cedar Bog Nature Preserve was NOPES' only hike this day, it can be combined with hikes (including self-guided ones) at two other orchid locations, each less than 30 minutes away: Leadingham Prairie Preserve/Spangler Nature Preserve, home to *Platanthera leucophaea*, the Eastern Prairie Fringe Orchid, and Gallagher Fen State Nature Preserve, home to *Spiranthes incurva*, the Sphinx Ladies' Tresses.

NATIVE ORCHID TRIPS – HIKING IN OUR ‘BUBBLES’

What follows are highlights individual NOPEs members wrote about their solo or ‘in my own bubble’ hikes. Some will make the 2021 calendar as group hikes or, if a group hike is not possible, with information on how to hike it on your own. If you see a location or plant in which you are especially interested, email Jeanne at jeanws@me.com or respond to the survey that was emailed to members a couple weeks ago.

Waterloo Nature Preserve Michigan – Jeanne Rhinehart

Early June gave me a chance to see the first two of my bucket list plants for this year! Jan Yates and I traveled on a long day trip to Michigan on June 1st to see *Cypripedium parviflorum* var. *makasin*, the Northern Small Yellow Lady's-Slipper and *Arethusa bulbosa*, the Dragon's Mouth Orchid.



Cypripedium parviflorum var. *makasin*



Cypripedium x andrewsii

We first stopped at a swampy location to search for the *Cypripedium parviflorum* var. *makasin* and the natural hybrid *Cypripedium x andrewsii* Andrew's Lady's-Slipper which is a natural hybrid between *C. candidum* x *C. parviflorum* var. *makasin*. We were able to find several in some of the sunny parts of the swamp.



Arethusa bulbosa

Then on to the entrance of the Gerald E. Eddy Discovery Center with a hike through the beautiful forest to the bog and the main point for the trip - We were not disappointed.

An added bonus was found in the bog – an aging *Cypripedium acaule*, the Pink Lady's-Slipper.



Cypripedium acaule



Cypripedium candidum

On the drive home we stopped near Castalia, Ohio to see *Cypripedium candidum*, the Small White Lady's-Slipper. There were over a hundred plants, but most were past prime. Finally, on home after a long but successful trip!

Red River Gorge Region, Kentucky *Cleistesopsis bifaria*, Spreading Pogonia – Jeanne Rhinehart

Angela promised to show me my final bucket list orchid - *Cleistesopsis bifaria* or the Smaller Spreading Pogonia. Last year Teresa and John Huesman, Barry and I drove around the region unsuccessfully searching for them based on Angela's directions. On June 7th we traveled to Kentucky to the site we tried to find last year. This year Jan and I met Angela there. This year there were no plants that we could see. We then went to a second location and were finally rewarded with seeing a few beautiful blooms.



Cleistes bifaria

Mohican State Park and Brown's Lake Bog – Jeanne Rhinehart

On June 14 Jan Yates and I met Angela Carter at Brown's Lake Bog to check on the *Pogonia ophioglossoides*, the Rose Pogonia there. We found a few there. While the bog is in a beautiful setting, you must really hunt for the pogonias.



Pogonia ophioglossoides, the Rose Pogonia

We then traveled to Mohican State Park to check on *Platanthera orbiculata*, the Round-Leaved Orchid. It was a boom year for these plants as we found over 40 of them!



Angela photographing *Platanthera orbiculata*



Platanthera orbiculata, the Round-Leaved Orchid



Platanthera flava var. *herbiola*

As any of you who have traveled with Angela know, if there is still daylight and one more possible orchid to see, your trip goes on. So, on we went to Lawrence Woods to see hundreds of *Platanthera flava* var. *herbiola*, the Northern Tubercled Orchid.

***Corallorhiza bentleyi* Virginia – Jeanne Rhinehart**

Another day following Angela took us to West Virginia with an overnight stay in our cars at a rest area. COVID did not make traveling comfortable! While hiking an old railroad trail we saw very large populations of *Goodyera pubescens*, the Downy Rattlesnake Plantain. *Corallorhiza bentleyi* was harder to find. Angela was determined to find it as she had a report that it was in bloom in the region – which of course, find it she did. *Corallorhiza bentleyi* is the orchid of the month at the end of the newsletter. *Corallorhiza maculata*, the Spotted Coral-Root was also found here.



Goodyera pubescens



Corallorhiza bentleyi



Corallorhiza maculata

Hazel Dell Meadow and Daniel Boone National Forest – Jeanne Rhinehart

Doug and Beth Martin traveled to Cincinnati, to see the spectacular meadow of *Platanthera ciliaris* and *Spiranthes lacera* at Hazel Dell, the threatened *Platanthera integrilabia*, Monkey-Face Orchid, in the Daniel Boone National Forest and the *Liparis liliifolia* at Germantown Metro Parks.



Spiranthes lacera



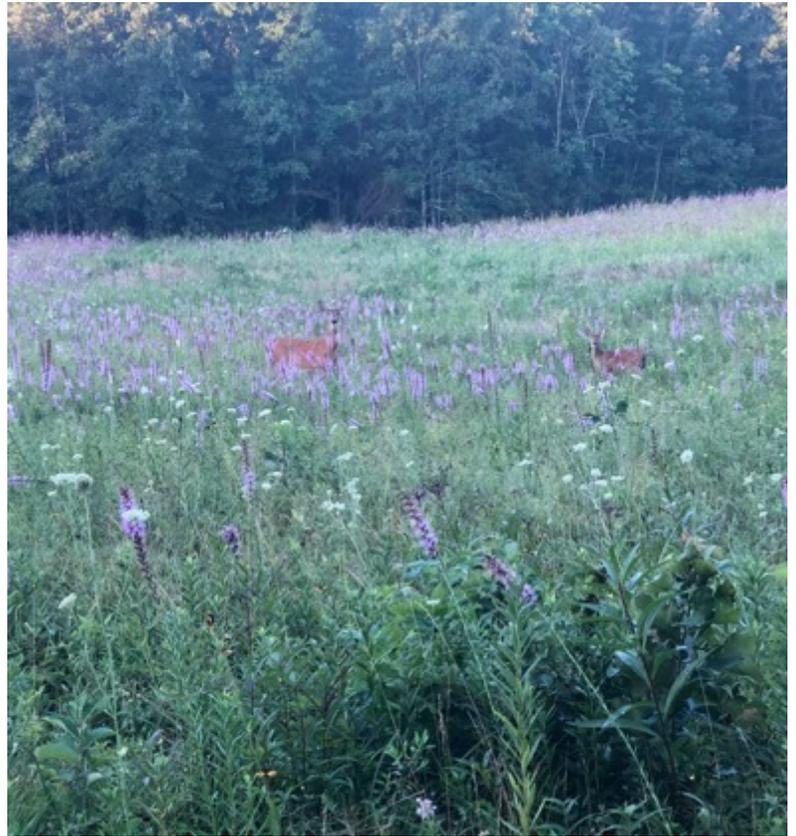
Platanthera ciliaris



Platanthera integrilabia
Monkey-Face Orchid

The next day Doug, Beth, Jan and I traveled to Shawnee State Forest and Chaparral Prairie State Nature Preserve to check for *Spiranthes*. When we arrived, we were greeted by a starving, dehydrated, and ill male cat. We couldn't take him then, so I gave him dog food and water. The next day Barry and I drove back to get him and take him to a vet. He was quite ill for several weeks, but he is now a healthy, loving 2-year-old neutered male cat. He clearly had a home once. Unfortunately, he is FIV positive and needs an only cat forever home. If anyone is interested, contact me at jeanws@me.com.

As Barry and I were heading to get him, we entered the preserve a different way and were rewarded with the beautiful wildflower meadow and another treat amongst the flowers.



The Martins made a second trip to Cincinnati when it was time to collect seeds at Germantown also hoping to see the late blooming *Spiranthes* species. They were able to see the Sphinx Lady's Tresses at Gallagher Fen State Nature Preserve including a cleistogamous form. *Spiranthes magnicamporum* was almost past bloom at Hueston Woods while barely open at Lynx Prairie. This is what makes it hard to determine precisely when something will be in full bloom each year and how long the bloom will last! Sometimes we need to alter our plans, and many of us take individual trips to determine the best time and places to find orchids in bloom. Unfortunately, they missed *Spiranthes arcisepala*, Appalachian Lady's Tresses, as it did not bloom for another week. They managed to see *Spiranthes ovalis* and a single bloom of the Autumn Coral-Root, *Corallorhiza odontorhiza*, which Jun Lao discovered. It was the first sighting of this species in approximately 100 years at Johnson Nature Preserve.



Spiranthes ochroleuca Yellow Ladies'-Tresses



Spiranthes incurva Sphinx Ladies'-Tresses



Spiranthes ovalis



Corallorhiza odontorhiza



Spiranthes magnicamporum at Lynx Prairie



Spiranthes arcisepala Appalachian Lady's Tresses at Kitty Todd

Plantanthera nivea Tennessee – Angela Carter

Considering that *Platanthera* is my favorite genus of terrestrial native orchids, learning that the Tennessee Native Plant Society, TNPS, was having a field trip on July 20, 2019 to visit *Platanthera nivea*, Snowy Orchid, with Dennis Horn, attending was a must! The orchids were just past peak, and the prairie was stunning. It was an amazing field trip and visiting May Prairie is now an annual road trip. May Prairie is one of the state's most floristically diverse natural areas with twenty-five plant species that occur here considered rare in Tennessee. It supports disjunct plants known from the Atlantic and Gulf Coastal Plains including the only state location for the snowy orchid.



Fast forward to July 10, 2020, the year of the pandemic, for a return trip to May Prairie to admire these beauties again. The colder weather delayed peak, but several dozen orchids were in stunning display as well as orchids in every stage from tight bud. The prairie has no official trail but that is the joy of wandering along the forest edge into the open prairie and seeing how many that you may find. As you travel the woodland trail you may encounter an occasional fading *Malaxis unifolia* or *Spiranthes lacera*. There are records of 16 different orchid species here.



Since I had a good lead for *P. cristata* in TN, I made a brief return trip on August 1, 2020 to visit May Prairie for other rare plants and was delighted to still find numerous *P. nivea* in bloom!



Native Orchid Hotspot: Southeast West Virginia - Jun Lao

Country road, take me home, to a place I belong, West Virginia... The Pocahontas and Greenbrier counties of West Virginia are lush and mountainous, with the Appalachian Mountains passing through, and is an orchid hotspot, having a number of native orchids in its confines. The area here is also unique in that there are plants here that you would typically see further north. With its cooler habitat, they have become remnant populations isolated from their usual range.

The Cranberry Mountain Nature Center is the starting point for finding your way around. They are staffed by naturalists and rangers who have the information you need. From there, there are two main roads of interest that radiate out from it - one is route 150, part of the Highlands Scenic Highway, where there are overlooks on the edge of the mountains that give you a view to the valleys below and out several miles. The other is route 39/55, that leads to Cranberry Glades and to the nearby town of Richwood. The COVID-19 pandemic closed the facilities to the public this year, but the staff are still there to help - they are often outdoors.

One of the earliest orchids to bloom in the area, typically in late May to early June, is the Early or Northern Coralroot, *Corallorhiza trifida*. Unlike the other coralroots that tend to have reddish flower spikes, this one sports a green spike and green flowers. They have small flowers, like the Wister's or Autumn Coralroots. There is a small population of the Northern Coralroot in Cranberry Glades, visible from the boardwalk, usually sending 1-2 spikes up each year. For two years I've seen seed pods on a spike when I walked the boardwalk in the second half of June, so this year, I made a day trip to see it early June when the naturalist confirmed that it was in prime bloom.

Come mid-June to late June, the burst of orchid blooms makes it a prime time to be here. In fact, you can see several orchid species in bloom if you come here at the right time.

From the parking lot at the Nature Center, you can spot an orchid out of place - Loesel's Twayblade (*Liparis loeselii*). According to the naturalist, it's been here and blooming for a number of years.

Further down the parking lot is a small population of Pad-leaved or Round-Leaved Orchids (*Platanthera orbiculata*). This year, the plants did not produce flowers, but you could see their large leaves hugging the ground (below). Last year, one of them had a very tall flower spike - a real specimen plant. Unfortunately, the late Spring frost/freeze was not something the plants liked, and none of them bore flowers this year.





Densely-flowered spike of Pad-Leaved Orchid in 2019.

Nearby, you can also see the easily identifiable leaves of Downy Rattlesnake Plantain (*Goodyera pubescens*). I've seen them in spike in mid-July, so they bloom later in the month. One orchid that I have not looked for when I was there is located just across the highway from the Nature Center in a wet area - Shining Ladies' Tresses (*Spiranthes lucida*) - usually in bloom around mid-June.

As you head to Cranberry Glades, and walk the boardwalk, you'll be treated to a large number of pink flowered orchids - Rose Pogonia (*Pogonia ophioglossoides*) and Grass Pink (*Calopogon tuberosus*). This year was a good year for them, and there were likely more than a hundred in bloom. The only thing about the Rose Pogonias is that they tend to be scattered about in the bog, with only a few near the boardwalk.



A Rose Pogonia pair close to the boardwalk.



Bog field with rose pogonias

The bog field in Cranberry Glades, in addition to the Rose Pogonia and Grass Pink orchids, also host a number of roundleaf sundews and northern pitcher plants. You can easily see the tall flowers of the northern pitcher plants, over the cranberries and orchids.

The Grass Pink orchids, when present in large numbers, show a fair degree of variation in hue, though I have not seen a white or alba version in the area yet.



A dark and vibrant Grass Pink Orchid



Ragged Fringed Orchid by the boardwalk



Paler color form of the Grass Pink Orchid

Another orchid that is often found close to the boardwalk is the Ragged Fringed Orchid (*Platanthera lacera*). It appears that there were a few years that it was not found blooming in the area, but the past three years, they were back, and often close to the boardwalk.

The other orchid that you may see from the boardwalk is one of the reasons for journeying to this area, if you are west of Pennsylvania and West Virginia - the Greater Purple Fringed Orchid (*Platanthera grandiflora*). While Ohio is listed as one of the states which have the Greater Purple Fringed Orchid, it seems that it has not been reported for some time in any accessible location.

The Greater Purple Fringed Orchid may pop up in bloom at a different location near the boardwalk, but there are many more of them on the roadside at different nearby locations - of course, not all purple flowers you see on the roadside are orchids, as smooth phlox is in bloom at the same time. Some of the orchids by the roadside are easily accessible, while others are some distance away, but viewable from the road. You may also find that the Greater

Purple Fringed Orchid comes in many different fringing styles and different shades - from dark purple to light pink to even white or alba forms.



Different shapes and shades - from light (*above*) to dark (right).



Way off the road and down a steep slope is a pair of white Greater Purple Fringed orchids, that I've seen for the past two years. Interestingly, they bloom about a week or so before the regular purples, and chatting with Andrew Lane Gibson, he also noted that the albas tend to bloom a little earlier than the normal-colored forms. This year, the white forms were in bloom, but a little past peak. The image below shows them at prime bloom from last year:

This year was not as great a year for the Greater Purple Fringed Orchids, compared to last year - only about 60% of last year's count, and they were also late blooming - around 7-10 days late. This may also be due to the late spring frost/freeze. Note that there are Lesser Purple Fringed Orchids (*Platanthera psycodes*) in the area too.

While at the boardwalk, you can also appreciate the rhododendrons that bloom near the start of the boardwalk split, as well as the mountain laurels. Also be on the lookout for what look like tall Queen Lady's Slipper leaves - they aren't orchids but are False Green Hellebore. Most of them did not bloom this year, likely impacted by the late Spring frost/freeze. Last year a number were in nice blooming condition:

While there is a sign that blue crayfish can be found here, I have not seen them, but actually found them in the wet soil outside the bog. Another thing to look out for in the areas with water are the newts.



Northern Tubercled Orchid (*Platanthera flava* var. *herbiola*)

Off in the wooded areas is another twayblade that is quite small and down to the ground - the Kidneyleaf or Small's Twayblade (*Neottia smallii*). Unfortunately, was told that this year, none of them were in bloom, not even in spike.

Just off to one of the trails outside the Cranberry Glades boardwalk is another habitat rich in native orchids in bloom in June. In this damp-to-wet open field, you can find Loessl's Twayblade, the Lily-Leaved Twayblade (*Liparis liliifolia*), and the Northern Tubercled Orchid (*Platanthera flava* var. *herbiola*). The orchids were still not so numerous and were in spike - also delayed in blooming time. The pictures here were from last year when they were in peak bloom, and at an earlier date.



Lily-Leaved Twayblade (*Liparis liliifolia*)

A little later in July (mid- to late-July) would be a good time for a second trip - a return to the area, as you can catch the bloom time of the Spotted Coralroot (*Corallorhiza maculata*).



This is from a plant that bloomed 3 years ago, next to where the Northern Coralroot was in Cranberry Glades, but nothing showed up these past two years, and the area where it was located look like it had been damaged by flooding. Hopefully the population will recover from the additional muck and wetness.

There is another spot a short drive away where there is a population of them under a large tree. Was a little early again this year to see them blooming, but there was one small flower from one of the bent spikes. There were also fewer spikes this year, compared to last year, and you could see those spikes with spent seed pods.

Another reason for returning to the area in July? It would be to see the Turk's Cap lilies, Fireweed, Scarlet Bee Balms, and two fringed orchids not easily seen elsewhere, but here you can find them by the roadside.

You'll see another purple fringed orchid in bloom, weeks after the Greater and Lesser Purple Fringed Orchids have bloomed. These are the Shriver's Frilly Orchids (*Platanthera shriveri*).

There is some DNA work being run now to compare the Lesser Purple Fringed, the Greater Purple Fringed, the Ragged Fringed, and the Shriver's Frilly orchids, to see how much they are related to each other, or if Shriver's should be combined with any. The thing though, is that here, the Shriver's Frilly orchid blooms after the Greater and Lesser Purple Fringed Orchids are done blooming.



Sadly, none of the Shriver's Frilly Orchids were in bloom this year, another casualty of the late Spring frost/freeze.

To add to why it's worth returning to the area in July, is that there is one other fringed orchid to see in the area, a natural hybrid of the Ragged Fringed Orchid and the Greater Purple Fringed Orchid - Keenan's Fringed Orchid (*Platanthera* × *keenanii*).



There is a small population of Keenan's Fringed Orchid that consistently blooms on the slopes (have seen it for two years), and while I was not able to head there this year, I was told that they were in bloom again this year as well. Being a hybrid, it may be more robust vs. its parent plants in surviving the late Spring frost/freeze.

The tall blooming spike of the Keenan's Fringed Orchid is definitely a sight to behold - rising tall above the surroundings. It has a pale pinkish color with a much more ragged lip closer to that of the Ragged Fringed Orchid.



This year, we also learned that there is a large population of Northern Tubercled Orchids in full sunlight, in front of the Gauley Ranger Station. These were shorter and more densely packed with flowers than the ones we usually see in the shaded boggy areas - quite a treat to see how differently they behave when not in very wet conditions and in full sunlight. I also learned that Helleborine orchids

(*Epipactis helleborine*) could be seen on the trail leading out from the Ranger Station (as well as a few Greater Purple Fringed Orchids).

While this has been a weird year for bloom time and for less or no orchids in bloom, it was also great showing the plants and native orchids here to three couples from our area who were into birding and plants. At least 13 orchid species, 1 natural hybrid, and 1 non-native orchid in one area - a real orchid hotspot!

Orchid of the Month – December

Corallorhiza bentleyi, Bentley's Coralroot

Jeanne Rhinehart

Corallorhiza bentleyi or Bentley's Coralroot is found in limited regions of Western Virginia and southeastern West Virginia. It is one of the most recently discovered North American native orchids, discovered by Stanley Bentley, the author of *Native Orchids of the Southern Appalachian Mountains* in 1996 in West Virginia and is described in his book. In 1999 Dr. John Freudenstein of Ohio State University named it after him. At the time of his discovery, Stanley Bentley reported that it was the only native orchid of North America to be entirely cleistogamous but as more plants have been discovered this is incorrect.

Corallorhiza bentleyi is described:

“Stems reddish to yellowish, to 20 cm. Inflorescences: racemes lax. Flowers 2–20, cleistogamous, inconspicuous; sepals and petals reddish to yellow, 3-veined; dorsal sepal lanceolate, 5.9–6.1 × 2.1–2.5 mm; lateral sepals lanceolate, somewhat falcate, strongly boat-shaped, 5.5–6.1 × 2.1–2.5 mm; petals narrowly ovate, weakly boat-shaped, 5–5.8 × 2.2–3 mm, apex acute; lip unlobed, ovate, 4.9–5.7 mm, margins involute, thickened,



prominent, apex acute; callus formed from 2 connate lamellae at base of lip, ± 1.2 as long as lip, 2.5–2.8 × 1.5–1.8 mm; column curved forward, 3–3.8 × 0.8–1 mm, with small depression adaxially at base; pedicellate ovary narrowly obovoid, 6–9 × 2.5–3 mm; mentum absent. Capsules obovoid-ellipsoid.”¹



The plant sometimes has two-toned coloration with tan sepals and petals and, if open, a yellow lip can be seen.

While originally found in West Virginia, its range has extended to Virginia as more plants have been discovered – some open with their yellow lip.



It is a small plant, 6 to 8 inches high, and its coloration makes it hard to see. It is found in disturbed areas in or near deciduous forests of mainly white oak and chestnut oak on an underlying sandstone rock. It is a member of the *Corallorhiza* genus and has no chlorophyll but obtains its nutrients from its relationship with a fungus.

The main threat to it is from maintenance of the trails along which it is found. Herbicides are also a threat. It is considered endangered in Virginia but has no federal status.

References:

- 1 Flora of North America, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101532
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