Calvert Orchid Project 2020 Report

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The Calvert County Natural Resources Division is partnering with the Smithsonian Environmental Research Center and the North American Orchid Conservation Center (NAOCC) to document orchid species found in Calvert County for the purpose of conserving native orchids found in the U.S. and Canada. The Calvert Stewards volunteers will obtain photographs and identify locations of orchids so that trained collectors can collect viable seeds, fruits, leaf samples, and root samples with the aim of conserving North American orchid species. In special situations whole plants will be collected for voucher specimens to be stored in the Botany Department of the National Museum of Natural History in Washington, D.C.

While NAOCC activities focus on establishing collections of seeds and orchid mycorrhizal fungi, Calvert Stewards primarily identify and map orchid populations throughout Calvert County.

SKILLS NEEDED

- Ability to work independently
- Ability to identify the common orchid species
- Hike across uneven and overgrown terrain, including off established trails, to get to orchid locations

Optional, but Preferred, Skills

- Access to a smart phone with iNaturalist app installed (or a digital camera with date and location stamp)

VOLUNTEER DUTIES

- Explore publicly accessible properties to find and identify orchids
- Map locations accurately on paper maps or through online mapping via iNaturalist. (See attached data sheet)
- Photograph the orchids at the different stages (leaf, flower, and fruit).
- Identify the habitat characteristics of each population.

REQUIREMENTS & EXPECTATIONS

- Hike independently or in teams
- Maintain confidential and sensitive information about locations of orchids
- Be exposed to ticks, chiggers, mosquitoes, bees/wasps, poison ivy, bad weather, and other wild life

TRAININGS

- Orientation through a workshop, in-person, or via phone to understand the project.
- Orientation and training on mapping via paper and online.
- On-going opportunities to join scheduled orchid searches

PROJECT DATES

- **Winter**: Locate species with overwintering leaves such as *Tipularia discolor* (Cranefly Orchid), *Aplectrum hymenale* (Puttyroot) and *Goodyera pubescens* (Downy Rattlesnake Plantain).
- **Spring**: Locate spring flowering species such as *Galearis spectabilis* (Showy Orchid) or *Cypripedium acule* (Pink Lady's Slipper)
- **Summer**: Locate summer flowering species such as the *Platanthera* species
- **Fall**: Compile location maps for all species.
- **Throughout the year:** Collaborate with researchers from the Smithsonian Environmental Research Center and NAOCC on individual locations and collection protocols

SUMMARY OF 2020 ACTIVITIES

Due to the pandemic and excessive summer heat, field work for 2020 was even less extensive than that conducted in 2019. Because of its abundance throughout the County *Tipularia* was not documented after 2019. 2020 consisted mostly of revisits to update previous records. Even so, one large new location with a new species was documented and one site was extensively expanded. A summary for each of the areas surveyed in 2020 follows:

American Chestnut Land Trust (ACLT) and **Gatewood Preserve** were not surveyed in 2020

Flag Ponds Nature Park: 5 visits were made. 4 to the *Spiranthes* Duncan Pond site and 1 to the northwestern floodplain.

- The 2 locations observed for *Platanthera clavellata* reported in 2018 and 2019 were again found in the floodplain, but no extension of the species.

- The *Spiranthes ovalis* site was revisited. The initial 2018 site found by Jim Statz was relocated. In October and early November there was a proliferation of plants over an extensive area (1800 sq. ft.) south and west of the 2 original plants near Duncan Trail. Much of the *Microstegium* was pulled, along with honeysuckle and wineberry. More than 25 plants were marked with two 8" nails (each being 10 cm on each side of the plant) in the three scattered areas extending beyond the two original 2018 plants.

Hall's Creek NRMA: 3 visits in April, May, and November

- *Neottia bifolia* was found in the flood plain off the west side of the trail. There were at least 50 plants in a 40'X40' area on April 12, 2020. This was our first find of this orchid for the Calvert County Orchid Project. However, it had been seen by Wayne Longbottom at Cove Point Quad in 2019. A follow-up visit was made May 7. The flowers were gone, but some leaves were still to be found.

- In November, the patch of *Cypripedium acaule* was hidden by a pile of downed pine trees near the main trail leading to the river that had been cut and piled where the orchids had been growing. The extent of damage to the area is uncertain.

Smoky Road (Kings Landing NRMA): visit in September.

- The *Corallorhiza odontorhiza* that was seen in 2018 and believed to have been destroyed by additional road work was found on September 24 in flower. The *Aplectrum* was also searched for, but there were no signs of flower, seeds or leaves.

Biscoe Gray Heritage Farm: 1 visit in December

On December 13 we found a spread of 68+ *Aplectrum hyemale* on the Forest Trail. This stand of orchids had been found by Karyn Molines in 2018, but had not been documented in Calvert Orchids.

Ward Farm Recreation & Nature Park: 2 visits in April

- We made one visit on April 23. We left from the parking lot at Good Shepherd Church. However, we were not comfortable with crossing Hall Creek and did not find any orchids or habitat that looked conducive to orchids.

- Since the bridge across the tributary had been repaired we were able to explore an extensive area on the north side of Hall Creek on April 25. However, we found no orchids. Even so that area should be explored again in the summer months.

Searches and volunteer hours: A total of 12 searches were done in 2020 at 5 public areas in the County. Number of volunteers: 2; Number of hours: 34.5; Value of Service: $1,018

Due to the pandemic, new volunteers were not incorporated into the project in 2020.

RECOMMENDATIONS

1. The *Spiranthes ovalis* found by Jim Statz in 2018 at Flag Ponds is only the second finding of this plant in Maryland. It is also an unusual site in Calvert County where the orchid has spread extensively despite its nearness to a well-used trail and road. As mentioned, the 25 plants have been marked with 8" nails so that they can be monitored. It is also hoped that samples can be taken from these plants for submission to North American Orchid Conservation Center (Contact: Dennis Whigham). It is also important that we continue to try to control the invasive plants that are growing in the area of the *Spiranthes*.

2. The logs on top of the *Cypripedium* at Hall Creek need to be removed. I have attempted to reach Cedarville State Forest regarding this issue, but have not been successful.

3. There needs to be a concerted effort to explore the wetland areas which are good habitat for most terrestrial orchids which might be found on the Coastal Plain. These searches should be concentrated in the months from the end of April through the end of June and repeated in the months of July through September. Reviewing the literature on the internet (GoOrchid, Maryland Plant Atlas, and Maryland Biodiversity Project) we have 24 orchids that have been seen on the Coastal Plain of Maryland and thus possibly could be found in Calvert County. Of those 10 have been documented with Calvert Orchids. The remaining 14 species have been included as being "possibilities" due to their occurrence at some time on the Western Coastal Plain of Maryland. (See "14 Orchids that Might be Found in Calvert County")

4. Searches should be made at least twice during the spring and summer at the following locations:

    a. The wetland plains of Hall Creek NRMA south of the feeder creek could use further exploration in the summer. The floodplains on the east side have been searched several times in spring and summer. (In 2020 we found a new route across the stream. As a result the *Neottia bifolia* was found in a floodplain beyond the stream in April 2020.)

    b. Battle Creek including the upper reaches of the Creek and Biscoe Gray should be explored. (Again, accessibility is a concern.)

    c. The floodplains of Flag Ponds should be explored in the early spring.

    d. The streams of Smoky Road/ Huntingtown NRMA should be explored. This might be accessible in late April and early May, but may be overgrown in summer.

    e. The North South Trail at ACLT should be explored. This might be done in cooperation with the Master Naturalists Program at ACLT.

ATTACHED:

1. A spreadsheet summary of orchid findings at the different public natural habitats in Calvert County in 2018-2020.

2. Ten Orchids Documented in Calvert Orchids Project.

3. Fourteen Orchids Which Might be Found in Calvert County.

	Running Spreadsheet on Orchid Sites a		
LOCATION	**SPECIES:2018** **2019** **2020**	**PLANT ID**	**COORDINATES**
ACLT - American Chestnut Land Trust (ACLTN = north of Parker's Crk; ACLTS = south of Parker's Crk)	Galearis spectabilis	ACLT-Gs-1	N38° 31.001' W76° 31.137'
ACLTN	Galearis spectabilis	ACLT-Gs-2	N38° 30.996' W76° 31.139'
	Goodyera pubescens	ACLT-Gp-1	N38° 33.183' W76° 32.812'
ACLTN	Goodyera pubescens	ACLT-Gp-2	N38° 33.188' W76° 32.827'
ACLTN	Goodyera pubescens	ACLT-Gp-3	N38° 33.175' W76° 32.793'
ACLTN	Goodyera pubescens	ACLT-Gp-4	N38° 33.173' W76° 32.788'
ACLTN	Tipularia discolor	ACLT-Td-1	N38° 33.183' W76° 32.812'
ACLTN	Tipularia discolor	ACLT-Td-2	N38° 33.173' W76° 32.786'
ACLTN	Tipularia discolor	ACLT-Td-3	N38° 33.192' W76° 32.830'
ACLTS	Aplectrum hyemale	ACLTS-Ah-1	N38° 30.224' W76° 31.055'
ACLTS	Tipularia discolor	ACLTS-Td-05	N38° 31.102' W76° 31.462'
ACLTS	Tipularia discolor	ACLTS-Td-06	N38° 31.117' W76° 31.498'
ACLTS	Tipularia discolor	ACLTS-Td-07	N38° 31.113' W76° 31.515'
ACLTS	Tipularia discolor	ACLTS-Td-08	N38° 31.029' W76° 31.522'

ACLTS	Tipularia discolor	ACLTS-Td-09	N38° 30.930' W76° 31.458'
ACLTS	Tipularia discolor	ACLTS-Td-10	N38° 30.790' W76° 31.315'
ACLTS	Tipularia discolor	ACLTS-Td-11	N38° 30.648' W76° 31.150'
ACLTS	Tipularia discolor	ACLTS-Td-12	N38° 30.669' W76° 31.138'
ACLTS	Tipularia discolor	ACLTS-Td-13	N38° 30.664' W76° 31.374'
ACLTS	Tipularia discolor	ACLTS-Td-14	N38° 30.665' W76° 31.383'
ACLTS	Tipularia discolor	ACLTS-Td-15	N38° 30.704' W76° 31.432'
ACLTS	Tipularia discolor	ACLTS-Td-16	N38° 30.691' W76° 31.446'
ACLTS	Tipularia discolor	ACLTS-Td-17	N38° 30.541' W76° 31.342'
ACLTS	Tipularia discolor	ACLTS-Td-18	N38° 30.561' W76° 31.270'
ACLTS	Tipularia discolor	ACLTS-Td-19	N38° 30.546' W76° 31.276'
ACLTS	Tipularia discolor	ACLTS-Td-20	N38° 30.580' W76° 31.559'
ACLTS	Tipularia discolor	ACLTS-Td-21	N38° 30.466' W76° 31.751'
ACLTS	Tipularia discolor	ACLTS-Td-22	N38° 30.442' W76° 31.768'
ACLTS	Tipularia discolor	ACLTS-Td-23	N38° 30.403' W76° 31.709'
ACLTS	Tipularia discolor	ACLTS-Td-24	N38° 30.391' W76° 31.648'
ACLTS	Tipularia discolor	ACLTS-Td-25	N38° 30.311' W76° 31.458'
ACLTS	Tipularia discolor	ACLTS-Td-26	N38° 30.332' W76° 31.451'

ACLTS	Tipularia discolor	ACLTS-Td-27	N38° 30.444' W76° 31.376'
ACLTS	Tipularia discolor	ACLTS-Td-28	N38° 30.449' W76° 31.301'
ACLTS	Tipularia discolor	ACLTS-Td-29	N38° 30.859' W76° 31.512'
ACLTS	Tipularia discolor	ACLTS-Td-30	N38° 30.893' W76° 31.604'
ACLTS	Tipularia discolor	ACLTS-Td-31	N38° 31.054' W76° 31.538'
ACLTS	Tipularia discolor	ACLTS-Td-32	N38° 30.859' W76° 31.512'
ACLTS	Tipularia discolor	ACLTS-Td-33	N38° 30.893' W76° 31.604'
ACLTS	Tipularia discolor	ACLTS-Td-34	N38° 31.054' W76° 31.538'
Biscoe Gray	Aplectrum hyemale	BG-Ah-1	N38° 48587' W76° 5863’
DDP - Dunkirk District Park	Tipularia discolor	DDP Td 1	N38° 43.430' W76° 39.940'
DDP	Tipularia discolor	DDP Td 2	N38° 43.448' W76° 39.967'
DDP	Tipularia discolor	DDP Td 3	N38° 43.444' W76° 39.960'
DDP	Tipularia discolor	DDP Td 4	N38° 43.447' W76° 39.958'
DDP	Tipularia discolor	DDP Td 5	N38° 43.448' W76° 39.965'
DDP	Tipularia discolor	DDP Td 6	N38° 43.442' W76° 39.960'
DDP	Tipularia discolor	DDP Td 7	N38° 43.442' W76° 39.956'
DDP	Tipularia discolor	DDP Td 8	N38° 43.441' W76° 39.958'
DDP	Tipularia discolor	DDP Td 9	N38° 43.439' W76° 39.960'

DDP	Tipularia discolor	DDP Td 10	N38° 43.440' W76° 39.951'
DDP	Tipularia discolor	DDP Td 11	N38° 43.425' W76° 39.948'
Flag Ponds Nature Park - FP	Apletrum hyemale	FP-Ah-1	N38° 27.008' W76° 27.642'
FP	Goodyera pubescens	FP-Gp-1	N38° 27.166' W76° 27.771'
FP	Galearis spectabilis	FP-Gs-01	N38° 26.691' W76° 27.326'
FP	Galearis spectabilis	FP-Gs-02	N38° 26.690' W76° 27.357'
FP	Galearis spectabilis	FP-Gs-03	N38° 26.681' W76° 27.381'
FP	Galearis spectabilis	FP-Gs-04	N38° 26.675' W76° 27.410'
FP	Galearis spectabilis	FP-Gs-05	N38° 26.680' W76° 27.418'
FP	Galearis spectabilis	FP-Gs-06	N38° 26.673' W76° 27.443'
FP	Galearis spectabilis	FP-Gs-07	N38° 26.670' W76° 27.451'
FP	Galearis spectabilis	FP-Gs-08	N38° 26.665' W76° 27.581'
FP	Galearis spectabilis	FP-Gs-09	N38° 26.667' W76° 27.585'
FP	Galearis spectabilis	FP-Gs-10	N38° 26.676' W76° 27.592'
FP	Galearis spectabilis	FP-Gs-11	N38° 26.670' W76° 27.587'
FP	Galearis spectabilis	FP-Gs-12	N38° 27.045' W76° 27.684'
FP	Galearis spectabilis	FP-Gs-13	N38° 27.041' W76° 27.684'
FP	Platanthera clavellata	FP-Pc-1	N38° 27.241' W76° 28.159'

FP	Platanthera clavellata	FP-Pc-2	N38° 27.155' W76° 28.215'
FP	Platanthera clavellata	FP-Pc-3	N38° 27.241' W76° 28.159'
FP	Platanthera clavellata	FP-Pc-4	N38° 27.184' W76° 28.201'
FP	Spiranthes ovalis	FP-So-1	N38° 26.969' W76° 27.511'
FP	Spiranthes ovalis	FP-So-2	N38° 26.974' W76° 27.510'
FP	Spiranthes ovalis	FP-So	Same site extended
FP	Tipularia discolor	FP-Td-1	N38° 27.042' W76° 27.762'
FP	Tipularia discolor	FP-Td-2	N38° 26.905' W76° 27.750'
FP	Tipularia discolor	FP-Td-3	N38° 26.850' W76° 27.709'
FP	Tipularia discolor	FP-Td-4	N38° 27.264' W76° 28.126'
FP	Tipularia discolor	FP-Td-5	N38° 27.356' W76° 28.080'
GP - Gatewood Preserve	Tipularia discolor	GP-Td-1	N38° 29.158' W76° 35.341'
HC -Hall's Creek NRMA	Cypripedium acaule	HC-Ca-1	N38° 42.397' W76° 41.561'
HC	Cypripedium acaule	HC-Ca-2	N38° 42.397' W76° 41.563'

HC	Cypripedium acaule	HC-Ca-3	N38° 42.396' W76° 41.559'
HC -Hall's Creek NRMA	Cypripedium acaule	HC-Ca-1-3	3 sites above
HC	Cypripedium acaule	HC-Ca-4	N38° 42.326' W76° 41.564'
HC	Goodyera pubescens	HC-Gp-1	N38° 41.802' W76° 41.307'
HC	Goodyera pubescens	HC-Gp-2	N38° 41.734' W76° 41.245'
HC	Goodyera pubescens	HC-Gp-3	N38° 41.714' W76° 41.245'
HC	Goodyera pubescens	HC-Gp-4	N38° 41.714' W76° 41.251'
HC	Goodyera pubescens	HC-Gp-5	N38° 41.714' W76° 41.240'
HC	Goodyera pubescens	HC-Gp-6	N38° 41.704' W76° 41.234'
HC	Goodyera pubescens	HC-Gp-7	N38° 41.704' W76° 41.238'
HC	Goodyera pubescens	HC-Gp-8	N38° 41.696' W76° 41.230'
HC	Liparis lilifolia	HC-Ll-1	N38° 41.805' W76° 41.246'
HC	Liparis lilifolia	HC-Ll-2	N38° 41.806' W76° 41.243'
HC	Liparis lilifolia	HC-Ll-3	N38° 41.809' W76° 41.235'
HC	Neottia bifolia	HC-Nb-1	N38°.7009533' W76.69245

HC	Tipularia discolor	HC-Td-1	N38° 42.023' W76° 41.544'
HC	Tipularia discolor	HC-Td-2	N38° 42.284' W76° 41.652'
HC	Tipularia discolor	HC-Td-3	N38° 42.297' W76° 41.568'
HC	Tipularia discolor	HC-Td-4	N38° 42.285' W76° 41.567'
HC	Tipularia discolor	HC-Td-5	N38° 42.244' W76° 41.582'
HC	Tipularia discolor	HC-Td-6	N38° 42.295' W76° 41.568'
HC	Tipularia discolor	HC-Td-7	N38° 42.556' W76° 41.677'
HC	Tipularia discolor	HC-Td-8	N38° 42.484' W76° 41.640'
HC	Tipularia discolor	HC-Td-9	N38° 41.947' W76° 41.471'
HF - Hughes Farm	Tipularia discolor	HF-Td-1	N38° 34.284' W76° 34.432'
HF	Tipularia discolor	HF-Td-2	N38° 34.279' W76° 34.431'
HF	Tipularia discolor	HF-Td-3	N38° 34.272' W76° 34.417'
HF	Tipularia discolor	HF-Td-4	N38° 34.126' W76° 34.697'
HF	Tipularia discolor	HF-Td-5	N38° 34.199' W76° 34.604'
HF	Tipularia discolor	HF-Td-6	N38° 34.262' W76° 34.438'
HF	Tipularia discolor	HF-Td-7	N38° 34.226' W76° 34.458'
HF	Tipularia discolor	HF-Td-8	N38° 34.239' W76° 34.450'
KL - Kings Landing Park	Tipularia discolor	KL-Td-1	N38° 37.457' W76° 40.075'

KL	Tipularia discolor	KL-Td-2	N38° 37.448' W76° 40.081'
KL	Tipularia discolor	KL-Td-3	N38° 37.451' W76° 40.110'
KL	Tipularia discolor	KL-Td-4	N38° 37.453' W76° 40.118'
KL	Tipularia discolor	KL-Td-5	N38° 37.442' W76° 40.110'
KL	Tipularia discolor	KL-Td-6	N38° 37.625' W76° 40.385'
KL	Tipularia discolor	KL-Td-7	N38° 37.662' W76° 40.375'
KL	Tipularia discolor	KL-Td-8	N38° 37.647' W76° 40.397'
KL	Tipularia discolor	KL-Td-9	N38° 37.617' W76° 40.459'
KL	Tipularia discolor	KL-Td-10	N38° 37.665' W76° 40.365'
PF2Bay - Prince Frederick to Bay Trail	Cypripedium acaule	PF2B-Ca-1	N38° 32.801' W76° 32.918'
PF2Bay	Cypripedium acaule	PF2B-Ca-2	N38° 32.809' W76° 32.914'
PF2Bay	Galearis spectablis	PF2B-Gs-1	N38° 32.665' W76° 32.568'
PF2Bay	Galearis spectablis	PF2B-Gs-2	N38° 32.661' W76° 32.569'
PF2Bay	Galearis spectablis	PF2B-Gs-7	N38° 32.684' W76° 32.630'
PF2Bay	Galearis spectablis	PF2B-Gs-8	N38° 32.724' W76° 32.717'
PF2Bay	Galearis spectablis	PF2B-Gs-13	N38° 32.733' W76° 32.722'

SR - Huntingtown NRMA (Smoky Road)	Aplectrum hyemale	SR-Ah-1	N38° 38.541' W76° 39.774'
SR	Corallorhiza odontorhiza	SR-Co-1	N38° 38.560' W76° 39.460'
SR	Corallorhiza odontorhiza	SR-Co-2	N38° 38.560' W76° 39.460'
SR	Corallorhiza odontorhiza	SR-Co 1-2	See above sites
SR	Cypripedium acaule	SR-Ca-1	N38° 38.606' W76° 39.683'
SR	Goodyera pubescens	SR-Gp-1	N38° 38.460' W76° 39.745'
SR	Goodyera pubescens	SR-Gp-2	N38° 38.606' W76° 39.683'
SR	Goodyera pubescens	SR-Gp-3	N38° 38.512' W76° 39.643'
SR	Goodyera pubescens	SR-Gp-4	N38° 38.467' W76° 39.758'
SR	Goodyera pubescens	SR-Gp-5	N38° 38.489' W76° 39.761'
SR	Goodyera pubescens	SR-Gp-6	N38° 38.494' W76° 39.767'
SR	Goodyera pubescens	SR-Gp-7	N38° 38.552' W76° 39.433'
SR	Goodyera pubescens	SR-Gp-8	N38° 38.509' W76° 39.779'
SR	Goodyera pubescens	SR-Gp-9	N38° 38.568' W76° 39.457'

SR	Tipularia discolor	SR-Td-1	N38° 38.438' W76° 39.855'
SR	Tipularia discolor	SR-Td-2	N38° 38.346' W76° 40.070'
SR	Tipularia discolor	SR-Td-3	N38° 38.584' W76° 39.599'
SR	Tipularia discolor	SR-Td-4	N38° 38.579' W76° 39.614'
SR	Tipularia discolor	SR-Td-5	N38° 38.552' W76° 39.633'
SR	Tipularia discolor	SR-Td-6	N38° 38.466' W76° 39.709'
SR	Tipularia discolor	SR-Td-7	N38° 38.117' W76° 40.232'
SR	Tipularia discolor	SR-Td-9	N38° 38.552' W76° 39.433'
SR	Tipularia discolor	SR-Td-10	N38° 38.560' W76° 39.457'
SR	Tipularia discolor	SR-Td-11	N38° 38.548' W76° 39.528'
WF - Ward Farm Recreational and Nature Park	Goodyera pubescens	WF-GP-1	N38° 42.919' W76° 38.857'
WF	Goodyera pubescens	WF-Gp-2	N38° 42.933' W76° 38.822'
WF	Goodyera pubescens	WF-Gp-3	N38° 43.043' W76° 38.295'
WF	Tipularia discolor	WF-Td-1	N38° 43.078' W76° 38.321'
WF	Tipularia discolor	WF-Td-2	N38° 43.095' W76° 38.191'
WF	Tipularia discolor	WF-TD-3	N38° 43.046' W76° 38.762'
WF	Tipularia discolor	WF-TD-4	N38° 43.046' W76° 38.756'

WF	Tipularia discolor	WF-TD-5	N38° 43.060' W76° 38.797'
WF	Tipularia discolor	WF-TD-6	N38° 42.997' W76° 38.591'
YB - Yellow Bank Rd (back road to the Burtons)	Galearis spectablis	YB-Gs-1	N38° 43.897' W76° 40.275'
YB	Galearis spectablis	YB-Gs-2	N38° 43.933' W76° 40.375'
YB	Galearis spectablis	YB-Gs-3a	N38° 43.906' W76° 40.286'
YB	Galearis spectablis	YB-Gs-3b	N38° 43.907' W76° 40.286'
YB	Tipularia discolor	YB-Td-1	N38° 43.893' W76° 40.266'
YB	Tipularia discolor	YB-Td-2	N38° 43.903' W76° 40.318'
YB	Tipularia discolor	YB-Td-3	N38° 43.916' W76° 40.418'

DATE	**Leaf, Flower, Seed, Number of Plants**	**Comments**	
6/30/19	leaf	Our first discovery of Galearis at ACLT (Chestnut Trail)	
6/30/19	leaf	Our first discovery of Galearis at ACLT (Chestnut Trail)	
4/20/18	leaf, 7	Double Oak Rd; co-located with ACLT-Td-1	
4/20/18	leaf,4	Double Oak Rd	
4/20/18	leaf, several	Double Oak Rd	
4/20/18	leaf	Double Oak Rd	
4/20/18		Double Oak Rd; co-located with ACLT-Gp-1	
4/20/18		Double Oak Rd	
4/15/18		Double Oak Rd; many in vicinity	
1/6/19	leaf 3	East Loop Trail	
12/29/18	leaf 5	Ridge Loop Trail	
12/29/18	leaf 12	Ridge Loop Trail	
12/29/18	leaf 1	Ridge Loop Trail	
12/29/18	leaf 8	Ridge Loop Trail	

12/29/18	leaf 1	Ridge Loop Trail	
12/29/18	leaf	Ridge Loop Trail	
1/27/19	leaf 3	Laurel Trail	
1/27/19	leaf 1	Laurel Trail	
1/27/19	leaf 10+	Laurel Trail	
1/27/19	leaf several	Laurel Trail	
1/27/19	leaf 20+	Laurel Trail; large group	
1/27/19	leaf 20+	Laurel Trail; at base of Beech	
1/27/19	leaf 13	Laurel Trail	
1/27/19	leaf 10?	Laurel Trail	
1/27/19	leaf 13	Laurel Trail	
2/3/19	leaf 1	Karen's Trail; single small leaf	
2/3/19	leaf 5	Karen's Trail	
2/3/19	leaf 2	Karen's Trail	
2/3/19	leaf 85+	Karen's Trail, largest group (85 contiguous at bae of tree)	
2/3/19	leaf 1	Karen's Trail	
2/3/19	leaf 5	East Loop Trail	
2/3/19	leaf 3	East Loop Trail	

2/3/19	leaf 3	East Loop Trail	
2/3/19	leaf 7+	East Loop Trail	
2/15/19	leaf 6, 1 seed	Flint Trail	
2/15/19	leaf 6	Flint Trail	
2/15/19	leaf	Flint Trail	
2/15/19	leaf	Flint Trail	
2/15/19	leaf	Flint Trail	
2/15/19	leaf 7	Flint Trail	
12/13/20	68 in leaf	Forest Trail	
4/20/18	leaf 60	Near stream	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	

4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
4/20/18	leaf	Near stream, Td-2 through Td-11 are one site on iNaturalist	
3/12/18	leaf 2	Lower North Ridge Trail	
8/5/18	leaf	Lower North Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
4/28/19	leaf	South Ridge Trail	
5/17/19	leaf	Lower North Ridge Trail; additional plants to the south, but still west of the trail	
5/17/19	leaf	Lower North Ridge Trail; additional plants to the south, but still west of the trail	
10/6/18	seed 3	Floodplain	

10/6/18	leaf 4, seed 1	Floodplain	
7/24/19	leaf	Floodplain	
7/24/19	leaf	Floodplain	
10/6/18	Flower 2	Duncan Pond near trail head. Not in iNaturalist, but in MD Plant Atlas; not found in 2019 (probably destroyed)	
9/21/19	Flower	Original 2018 finding next to Duncan Pond Trail	
10/24/20 to 11/09/20	Flower, leaf	3 groupings with a total of 25 -30 plants, marked with 8" nails	
8/5/18	Flower	Upper North Ridge Trail	
8/5/18	Flower 3	Upper North Ridge Trail	
8/5/18	Flower 2	Upper North Ridge Trail Spur	
10/6/18	leaf 3	Off trail, North Loop Trail	
10/14/18	leaf 1	Off trail, North Ridge Trail	
11/14/18	leaf	South side of driveway 6 groups in 10'X 30'	
5/6/2018, 4/25/19	8 flower groups, each with 1-3 plants. 10 to 20 flowers	Ca-1, Ca-2, Ca-3 are grouped together on iNaturalist. In dying V. pine area. 4/25/19 in bud (white)	
5/6/2018 4/25/19	8 flower groups, each with 1-3 plants. 10 to 20 flowers	Ca-1, Ca-2, Ca-3 are grouped together on iNaturalist. In dying V. pine area.	

5/6/2018 4/25/19	8 flower groups, each with 1-3 plants. 10 to 20 flowers	Ca-1, Ca-2, Ca-3 are grouped together on iNaturalist. In dying V. pine area.	
11/23/20	No plants seen	Dead pines that had fallen were cut and stacked on area where orchids were growing	
5/6/18	leaf 2	Main Trail to River	
3/18/18	leaf	Off Trail in Hunting Area with Lycopodium	
3/18/18	leaf > 50	Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
3/18/18		Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
3/18/18		Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
3/18/18		Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
3/18/18		Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
8/22/18		Off Trail in Hunting Area with Lycopodium . Includes Gp-3 through Gp-7 on iNaturalist.	
3/18/18		Southeren limit of Gp group.	
5/6/19	leaf, bud	East side at edge of trail at top of berm. Additional plants at edge of trail about 5 ft south.	
5/6/19	leaf, bud	19 ft east of trail at top of berm	
5/6/19	leaf, bud, flower	60 ft East of trail along top of berm, with 8 other locations extending westward to HC-Li-1.	
4/12/20	Flower, leaf	50 plants scattered over 40'X40' floodplain	

3/18/18	leaf 1	Blue Blaze Trail in Hunting area	
5/6/18	leaf 5-6	Side trail to river	
10/8/18	leaf 3	Main Trail to River	
10/12/18	leaf 33, seed 10	Main trail to River	
10/8/18	leaf 3	Main Trail to River	
10/8/18	leaf 3	Main Trail to River	
10/8/18	leaf and seed	Marsh near Kaylorite Mine	
10/8/18	leaf 15, seed 5	Trail to Kaylorite Mine	
2/22/19		no picture/ not in iNaturalist	
4/3/18	leaf 30+	Before main intersection. Includes Td-1, Td-2, Td-3 in iNaturalist.	
4/3/18		Before main intersection. Includes Td-1, Td-2, Td-3	
4/3/18		Before main intersection. Includes Td-1, Td-2, Td-3 in iNaturalist.	
4/3/18	leaf	Road to Pond	
4/3/18	leaf 1		
4/3/18	leaf	Trail to Cat Station. Includes Td-6. Td-7, Td-8 in iNaturalist.	
4/3/18	leaf	Trail to Cat Station. Includes Td-6. Td-7, Td-8 in iNaturalist.	
4/3/18	leaf	Trail to Cat Station. Includes Td-6. Td-7, Td-8 in iNaturalist.	
4/22/18	leaf 4	Trail to Amphitheater	

4/22/18	leaf 9	Trail to Amphitheater	
4/22/18	leaf 6+ clumps scattered	Around cinderblock bldg on road to Amphitheatre. Includes Td-4 and Td-5	
4/22/18	leaf 6+ clumps scattered	Around cinderblock bldg on road to Amphitheatre. Includes Td-4 and Td-5	
4/22/18	leaf 6+ clumps scattered	Around cinderblock bldg on road to Amphitheatre. Includes Td-4 and Td-5	
4/29/18	leaf	Wetlands Trail	
4/29/18	leaf	Several groups at Observation Blind	
4/29/18	leaf	Wetland Trail Boardwalk	
4/29/18	leaf many	Wetland Trail extended 24' X 10'	
9/30/18	No data		
6/8/18	leaf, seed	East of gate near Power line; 1 plant on nouth side of Trail	
6/8/18	leaf, seed	East of gate near Power line; 2 plants on south side of Trail	
6/8/18	leaf, seed 4	On trail and down slope	
6/8/18		multiple plants - includes photos labeled Gs-2 to Gs-6; approx. 10’ S of PF2B-Gs-1	
6/8/18	Leaf 15, stem 1		
6/8/18	Leaf	10 plants in vacinity. Photos labeled Gs-8 to Gs-12	
6/8/18	Single Leaf	No data	

5/5/2018, 5/14/2019 9/24/20	leaf 7; 6-4-18 flower No seeds, leaves	Main road in ditch. Revisit. Revisit to see if plants survived after road work.	
10/3/18	2 clumps with 15 stems and 4 flowers and 4 stems and 2 flowers	Bill Hubick found. Does not want location public. Found in roadside ditch.	
10/1/19	2 clumps	Revisit on 10/1/19 to verify plant survival	
9/24/20	2 clumps	Revisit to verify plants. Small plants in bloom despite road work disturbance	
6/4/18	plants 3, stem 1	Side of Road; same location as SR-Gp-2	
6/4/18	leaf 1, seed 1	Off trail. SE end of several occurrences extending NW beyond SR-Gp-4.	
6/4/18	leaf 5; 7-29-18	Off trail; same location as SR-Ca-1.	
7/29/18	leaf 13	Off trail on upper W slope of stream bank	
7/29/18	leaf 18+; 1 old flower stalk	Off trail. Many groups along old trail to NW and SE to SR-Gp-1	
7/29/18	leaf	Off trail; 2 groups.	
7/29/18	leaf	Off trail; 2 plants.	
7/29/18	Flower 3	Near gate on bank; 3 ft west of SR-Td-9	
7/30/18	leaf 4	Off trail	
10/3/18	leaf, stem	Off trail near stream	

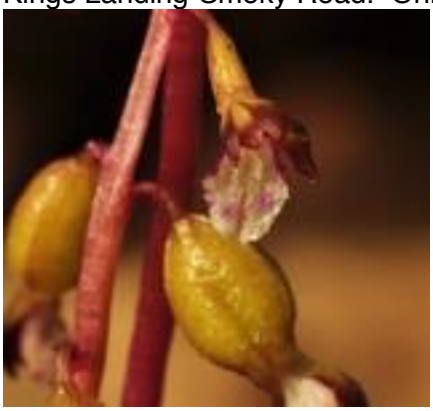
5/5/18	leaf	Near road 10'	
5/5/18	leaf	South of road	
7/29/18	Flower	North of road	
7/29/18	Flower 3	South side of road 3’ To Southern Red Oak ; 30 ft. N of a second Tipularia	
7/29/18	7 plant, leaf, bud and flower	Off trail SW top of 3’ deep drainage ditch; larger group to east at jct with 2nd ditch at base of tree	
7/29/18	Flower 1	South of Old Smoky Rd on lower flood plain S of stream with Xmas fern in profusion.	
7/29/18	Flower	South side of Road in woods E of fields at upper slope above pond	
7/29/18	Flower 1	South side of road near entrance gate	
10/3/18	leaf 8, stem 2	Off trail; A larger group is located 4’ to the west.	
10/3/18	leaf 24, some with seed	Off trail	
3/28/18	leaf	SW corner of park	
3/29/18	leaf 4	Intersection of 3 trails	
6/10/18	leaf	Abandoned trail	
2/27/18	leaf	unnamed trail over bridge	
3/10/18	leaf 9	Off trail at edge of park	
3/29/18	leaf	Unnamed trail	
3/29/18	leaf	Unnamed trail	

3/29/18	leaf	Unnamed trail	
3/29/18	No data		
4/30/18	3 clusters of 3 to 7 plants Flower	Private gravel road off Yellow Bank	
4/30/18	3 plants in 1 cluster Flower	Private gravel road off Yellow Bank	
5/4/18	2 clusters bloom beginning	Private gravel road off Yellow Bank	
5/4/18	Same as Gp-3a	Private gravel road off Yellow Bank	
3/14/18	leaf 2	Private gravel road off Yellow Bank	
10/9/18	leaf 1	Private gravel road off Yellow Bank	
4/30/18	leaf 10	Private property off Yellow Bank	

Attachment 2
Ten Orchids Documented in Calvert Orchids Project

Aplectrum hyemale Adam and Eve: Found in late May and early June. Leaf found in winter and early spring. Found at ACLTS, ACLTN. Kings Landing NRMA-Smoky Road, Biscoe Gray Farm?

Corallorhiza odontorhiza Autumn Coral Root: Found in October. Found in forests and wetlands. Found at Kings Landing-Smoky Road. Only one site.



Cypripedium acaule Moccasin Flower or Lady Slipper: Found late April or early May. Found in forests associated with pine. Found at PF2Bay, Hall Creek NRMA, Kings Landing-Smoky Road.

Galearis spectablis Showy orchid: Found in late April and May. Find in forests. Found at ACLTN, Flag Ponds, PF2Bay.

Goodyera pubescens Downy Rattlesnake Plantain: Found in July and early August. Leaf found in winter and early spring. Found in forests. Found at ACLTN, Flag Ponds, Hall Creek NRMA, Kings Landing-Smoky Road, Ward Farm.

Liparis lillifolia Large Twayblade: Found in May and June. Found in forests. Found at Hall Creek NRMA.

Neottia bifolia Southern Twayblade: Blooms in March, April and May. Found in fens, hummocks, bogs, marshes. Needs full to part sun. Found in Cove Point Quad in April, 2019 by Wayne Longbottom.

Platanthera clavellata Large Club Spur Bog Orchid: Found in September and October. Found at Flag Ponds.

Spiranthes ovalis Lesser Ladies' Tresses: Found in early October. Found in moist woodlands. Found at Flag Ponds. Only one site.

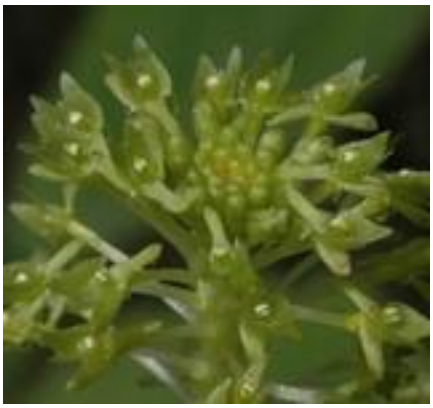
Tipularia discolor Cranefly orchid: Found in late July and early August. Leaf is found in winter and early spring. Found in ACLT N & S, Dunkirk District Park, Flag Ponds, Gatewood Preserve, Hall Creek, Hughes Farm, Kings Landing Park, Kings Landing- Huntingtown NRMA-Smoky Road, Ward Farm and Biscoe Gray. This orchid is so abundant that we are no longer documenting it.

Attachment 3
Fourteen Orchids of the Maryland Coastal Plain that Might be seen in Calvert County

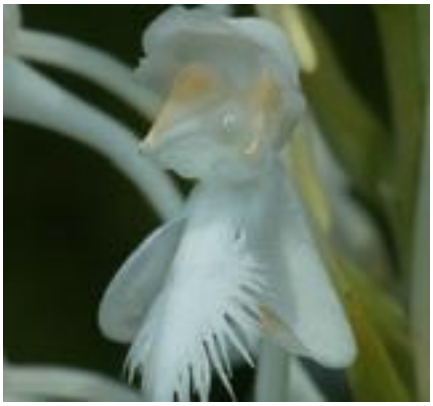
Epipactis helleborine Broad Leaved Helleborine: Found in late summer (August/ September) in disturbed areas such as sidewalks, forests and swamps. This is a non-native orchid!
It has been found in Prince George County.

Isotria verticilliata Large Whorled Pogonia: It blooms in May and June. It likes mesic to dry woodlands and bogs and acid soil and disturbed areas. It was seen in Cove Point Quad in 1998 and also in St. Mary's County.

Malaxis unifolia Green Adder's Mouth: Blooms in June and July. Found in bogs, forests, swamps, and woodlands. S2 Found in St Mary's County.



Platanthera blephariglottis White Fringed Bog Orchid; Found late July and August. Found in fens, marshes, and wetlands. S2 Mostly found in Worcester and Wicomico counties, but there was one site in Anne Arundel in 1981.

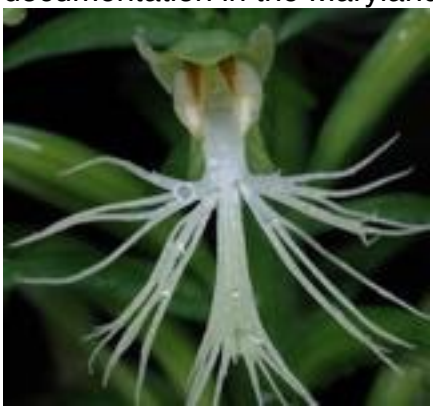


Platanthera ciliaris Orange Fringed Bog Orchid: Found in July and August. Found in moist meadows, marshes, bogs and woodlands. S2 Seen in Anne Arundel County by Wayne Longbottom in 1991.

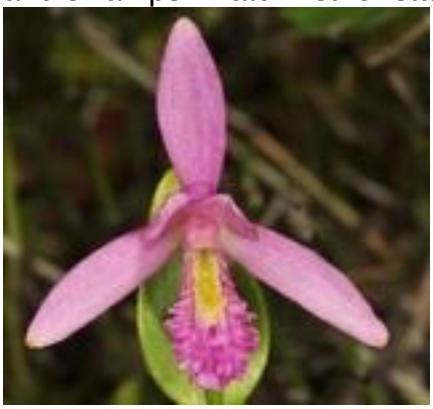
Platanthera cristata Crested Orange Bog Orchid: Found in July and early August. Found in moist meadows, marshes and prairies. S3 Mostly found in Worcester and Wicomico counties, but historically found in Anne Arundel and St Mary's counties.

Platanthera flava Northern Tubercled Bog Orchid Palegreen orchid: Found in June and July. Found in moist meadows, floodplains and sunny areas. S2S3 Maryland Biodiversity Project lists it as being in Calvert County. Seen by Kerry Wixted in Anne Arundel County, Bristol Quad, 6-25-2009

Platanthera lacera Ragged Fringed Orchid: Found in late June and early July. Found in wetlands and riverbanks. It is listed in Maryland Biodiversity Project as being in Calvert County, but there is no documentation in the Maryland Plant Atlas. It is found on the coastal plain and throughout Maryland



Pogonia ophioglossoides Rose Pogonia: Found in early June. Found in boggy habitat, riverbanks and swamps. Watch list for state. Found in Prince George, Wicomico and Anne Arundel counties.



Spiranthes cernua Nodding Ladies' Tresses; Found in September and early October. Found in moist fields, woodlands, bogs and marshes. It is listed in the Maryland Biodiversity Project as being in Calvert County. The Maryland Plant Atlas shows one site in Calvert County, but is listed as Bristol Quad September 16,1904.

Spiranthes lacera Slender Ladies' Tresses: Found in August and early September. Found in moist to dry meadows, fields and open woods. Found in Calvert in 1919, but seen in Deale, Anne Arundel County in 2019.

Spiranthes tuberosa Little Ladies' Tresses: Found in late August, blooms later than *S. lacera*. Found in dry to moist prairies, meadows and forests. Listed asS1. Only modern siting was in Upper Marlboro Quad in 1990 by Wayne Longbottom. Very unlikely to be in Calvert, only 3 sitings in Maryland Plant Atlas and 4 in Maryland Biodiversity Project.

Spiranthes vernalis Spring Ladies' Tresses: Found in late June and early July. Found in dry to moist meadows and prairies. Common on Coastal Plain including being found in Calvert County Cove Point by Brent Steury in 1996.

Triphora trianthophoros Three Birds Orchid: Found in August and September. Found in mesic forests and woodlands. Llisted S1. Only found in Queen Anne County. Probably not in Calvert. Flowers for only 1 day.

Supporting Calvert County's nature parks and natural spaces

CALVERT STEWARDS
VOLUNTEER PROGRAM

A partnership between Calvert Nature Society and Calvert County Natural Resources Division

2020 Annual Report

Date of Issue February 2021

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