

**Submitted by Andrew Conboy, Steve Jones, Janet Novak**

## Overview:

The Philadelphia Botanical Club's trip to Ricketts Glen State Park took place on Saturday, July 13th and Sunday, July 14th. There were roughly twelve participants who joined the trip.

The park is one of the most scenic areas in Pennsylvania and is roughly 13,000 acres, spread through parts of Luzerne, Sullivan, and Columbia counties. It includes the Glens Natural Area, which is a National Natural Landmark, and is known for its many waterfalls. The 94-foot Ganoga Falls is the highest of 22 named waterfalls. Parts of the park contain true old growth trees with a diversity of shrubs, understory plants, and wildlife.

Beech Leaf Disease, putatively caused by the nematode *Litylenchus crenatae mccannii*, has infected nearly every beech tree in the areas we explored. Dense beech stands that normally cast a lot of shade have now thinned as their crowns die back, though only a few completely dead beeches were noted. The disease likely reached the park in 2021 or 2022, and has already caused significant damage. Hemlock decline from the Hemlock Woolly Adelgid (*Adelges tsugae*) was also noted, though young hemlock regeneration was common.

Before the formal start of the two-day trip, some members of the group surveyed the area.

A few members set up a light and sheet in an attempt to attract moths at night on Friday, July 12th, and Saturday, July 13th. Permission was granted by park staff to set up around the visitor center on July 13th. The results can be found by clicking on the links below:

- July 12th, Big Loop Camp Site
- July 13th, Visitor Center

One member explored the (artificial) Lake Jean shoreline just north of the trip's starting point on the evening of Saturday July 13, and noted the presence of aquatic, emergent and wetland plants including *Brasenia schreberi*, *Sagittaria latifolia*, *Pontederia cordata*, *Carex utriculata*, and *Spiraea alba*.

## Routes and Maps:

### Saturday:

On Saturday 7/13, we met at the park's visitor center at 10 a.m. From there, we moved to Beach Lot #2 and took a trail east until we arrived at the Highland Trail. We took the Highland Trail west, through the Midway Crevasse and towards the Falls Trail (Area 1 on the map at the end of this report). Around the crevasse (labeled on map), we stopped to observe plants growing on the rocky outcroppings: *Gaultheria hispidula* (S3), *Clintonia borealis*, and *Polypodium appalachianum*.

Once at the Falls Trail, which is a steep but well-traveled trail along the west branch of Kitchen Creek, we hiked south to Ganoga Falls, the largest waterfall (Area 2 on the map at the end of this report). We spent some time here exploring the plants in the valley on the steep hills including *Taxus canadensis*, *Hydrangea arborescens* in bloom, *Phegopteris connectilis*, *Chelone glabra*, and *Streptopus amplexifolius* in fruit. Some ventured a bit further down to Mohican Falls, but eventually we all turned around and hiked the same way back up the trail.

This area is largely a Hemlock (white pine) - northern hardwood forest community, dominated mostly by *Tsuga canadensis*, *Fagus grandifolia*, *Acer rubrum*, and *Betula alleghaniensis*. Occasionally scattered were a few *Tilia americana*, *Fraxinus* sp., and *Pinus strobus*. Common woody understory plants included *Acer pensylvanicum*, *Viburnum lantanoides*, *Acer spicatum*, *Vaccinium* spp., *Hydrangea arborescens*, and *Hamamelis virginiana*. In an article on the site, the Pennsylvania DCNR notes that the significant diversity of tree species at the site relates to its location between the southern and northern hardwood forest types.

## Sunday:

On Sunday 7/14, we met at the Shale Pit parking lot on the west side of PA 487 at 8:30am. From here, we moved to the Lake Rose Trail Head parking lot and hiked south along the trail, and then west into the woods towards Lake Rose to explore the bog here. In the moist woods along the way (Area 1 on map below), we found *Trillium undulatum*, *Sorbus americana*, *Ilex montana*, *Coptis trifolia*, *Bazzania trilobata*, *Diphasiastrum digitatum*, and *Lysimachia borealis*, among others. In the bog (Area 2 on map below), notable finds include: *Lycopodiella inundata*, *Dulichium arundinaceum*, *Lysimachia terrestris*, *Eriophorum virginicum*, *Gentiana linearis*, *Drosera intermedia*, and *Betula populifolia*.

Around 10:30am, we switched locations back to the Shale Pit parking lot, west of the Glens Natural Area. Around the parking lot (Area 1 on map below), we found *Populus tremuloides*, *Robinia hispida* in fruit, and a *Larix* that we assumed was non-native species based on the habitat. We came across an odd shrub that was later identified as *Caragana arborescens*, an exotic species and the first apparently-wild observation of it in PA on iNaturalist.

From here, we hiked the Laurel View Trail up to the fire tower (Area 2 on map below). These woods were of a different composition (probably Red oak - mixed hardwood forest) from what we observed in the Glens Natural Area, with *Quercus rubra* as the dominant tree. Other hardwoods noted included a few *Castanea dentata* resprouts, *Sassafras albidum*, *Betula lenta*, *Betula alleghaniensis*, *Tsuga canadensis*, and *Pinus strobus*. Understory plants included *Kalmia latifolia*, *Kalmia angustifolia*, *Epigaea repens*, *Osmunda claytoniana*, *Melampyrum lineare*, *Gaultheria procumbens*, and *Rubus dalibarda*. Some small treeless pockets along the way opened up more light for other meadow plants such as several patches of *Asclepias syriaca*, *Comptonia peregrina*, *Anaphalis margaritacea*, *Apocynum cannabinum*, *Lysimachia quadrifolia*, *Erigeron strigosus*, and *Achillea millefolium* complex.

## Full Plant List:

### Trees:

*Fagus grandifolia*  
*Acer rubrum*  
*Tsuga canadensis*  
*Acer spicatum*  
*Tilia americana*  
*Betula alleghaniensis*  
*Betula populifolia*  
*Acer pensylvanicum*  
*Betula lenta*  
*Castanea dentata*  
*Pinus strobus*  
*Sassafras albidum*  
*Populus tremuloides*  
*Larix* sp.

*Prunus pensylvanica*  
*Liriodendron tulipifera*  
*Magnolia acuminata*  
*Fraxinus* sp.  
*Amelanchier* sp.

**Shrubs:**

*Viburnum lantanoides*  
*Viburnum acerifolium*  
*Spiraea alba*  
*Kalmia latifolia*  
*Taxus canadensis*  
*Hydrangea arborescens*  
*Hamamelis virginiana*  
*Comptonia peregrina*  
*Robinia hispida*  
*Kalmia angustifolia*  
*Rubus idaeus*  
*Vaccinium angustifolium*  
*Vaccinium corymbosum*  
*Ilex montana*  
*Diervilla lonicera*  
*Lonicera canadensis*  
*Sorbus americana*  
*Vaccinium* spp.  
*Spiraea tomentosa*  
*Gaylussacia baccata*

**Ferns:**

*Polypodium appalachianum*  
*Dryopteris intermedia*  
*Phegopteris connectilis*  
*Osmundastrum cinnamomeum*  
*Deparia acrostichoides*  
*Cystopteris tenuis*  
*Cystopteris* sp.  
*Dennstaedtia punctilobula*  
*Osmunda claytoniana*  
*Onoclea sensibilis*  
*Asplenium trichomanes*  
*Pteridium aquilinum* var. *latiusculum*

**Others:**

*Scirpus cyperinus*  
*Solidago altissima*  
*Carex vulpinoidea*  
*Carex crinita* complex  
*Carex folliculata*  
*Carex* spp.

*Geum canadense*  
*Trillium undulatum*  
*Dendrolycopodium obscurum*  
*Huperzia lucidula*  
*Viola rotundifolia*  
*Oxalis montana*  
*Maianthemum canadense*  
*Oclemena acuminata*  
*Mitchella repens*  
*Hydrocotyle americana*  
*Clintonia borealis*  
*Gaultheria hispidula*  
*Laportea canadensis*  
*Arisaema triphyllum*  
*Maianthemum racemosum*  
*Eurybia divaricata*  
*Tiarella stolonifera*  
*Galium triflorum*  
*Solidago flexicaulis*  
*Eutrochium purpureum*  
*Conocephalum salebrosum*  
*Streptopus amplexifolius*  
*Plagiomnium sp.*  
*Chelone glabra*  
*Lycopus americanus*  
*Lycopus sp.*  
*Artemisia vulgaris*  
*Epipactis helleborine*  
*Pontederia cordata*  
*Solidago rugosa*  
*Monotropa uniflora*  
*Anaphalis margaritacea*  
*Leucanthemum vulgare*  
*Hypericum perforatum*  
*Tussilago farfara*  
*Apocynum cannabinum*  
*Lythrum salicaria*  
*Lobelia inflata*  
*Melampyrum lineare*  
*Gaultheria procumbens*  
*Dianthus armeria*  
*Uvularia sessilifolia*  
*Erigeron strigosus*  
*Rosa multiflora*  
*Chimaphila maculata*  
*Lysimachia quadrifolia*  
*Epigaea repens*  
*Eutrochium sp.*

*Aralia nudicaulis*  
*Rubus dalibarda*  
*Achillea millefolium complex*  
*Lysimachia terrestris*  
*Packera aurea*  
*Viola sagittata*  
*Dulichium arundinaceum*  
*Asclepias syriaca*  
*Rubus hispidus*  
*Spinulum annotinum*  
*Lysimachia borealis*  
*Coptis trifolia*  
*Diphasiastrum digitatum*  
*Monarda didyma*  
*Caulophyllum sp.*  
*Actaea pachypoda*  
*Pyrola elliptica*  
*Chrysosplenium americanum*  
*Polygonatum pubescens*  
*Medeola virginiana*  
*Prunella vulgaris*  
*Gentiana linearis*  
*Epilobium sp.*  
*Lycopodium clavatum*  
*Dichanthelium sp.*  
*Dichanthelium acuminatum complex*  
*Hypericum virginicum*  
*Juncus sp.*  
*Eriophorum virginicum*  
*Drosera intermedia*  
*Rhynchospora alba*  
*Vaccinium macrocarpon*  
*Lycopodiella inundata*

**Unsure:**

*Agrostis sp.*