Exploring the flora of the Southern Appalachian region 12/04/2025 – 11/05/2025

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Contents

Aims

My trip to the USA had numerous aims. These included improving our understanding of a 1933 plant collecting expedition to the southern Appalachian region, co-sponsored by Lawrence Johnston, creator of Hidcote; developing my knowledge of the regions flora, and native habitat; observing other ways of working at internationally renowned gardens; gaining inspiration for my own projects at Hidcote and exchanging skills with other horticultural professionals. The trip lasted 4 weeks, and focused on the southern Appalachian and coastal plains region of east-coast USA. It took place in spring 2025, 12/04/2025 - 11/05/2025.

- Approx 1 week exploring the wild flora of Appalachia, including visits to collections at Atlanta Botanical Garden and 4 days botanising in the Smoky Mountains on the Spring Wildflower Pilgrimage, and exploring some of the area of the 1933 plant collecting expedition
- 1 week work placement at Mt Cuba Center. This garden specialises in the conservation and promotion of plants native to the Piedmont region
- 1 week work placement at Chanticleer, a world class garden embracing the art and craft of gardening
- 1 week in NY, garden visits including Brooklyn Bridge Park projects, New York Botanical Garden, Brookyln Botanical Garden and Highline.
- Additional visits included: Grounds for Sculpture, Stoneleigh, Andalusia Gardens, Winterthur, Shenandoah National Park, Shenks Ferry Wildflower Preserve, Longwood Gardens and Sharp Top Mountain.

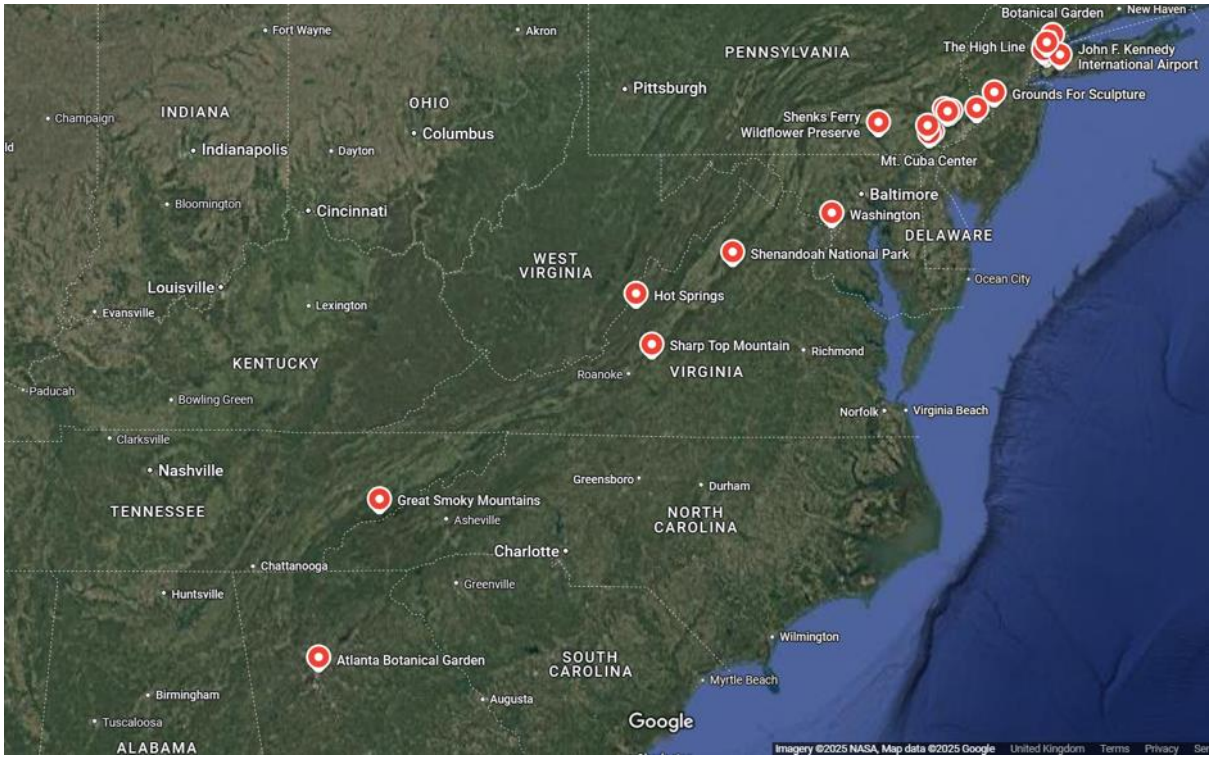

Figure 1 Locations visited

Week 1

My first week of the trip was based at the Mount Cuba Center, Delaware. The garden here was developed by the Copelands, who initially purchased 127 acres of farmland in 1935 to develop a home. In 1950 they purchased a further 17 acres which would become their naturalistic gardens, with Landscape Architect Seth Kelsey starting development of these from 1965. The Mount Cuba Center has since become a foundation, with the mission of inspiring 'an appreciation for the beauty and value of native plants and a commitment to protect the habitats that sustain them'.

Today, approximately 20 acres of formal and naturalistic gardens are open to the public, alongside a further 1000 acres of 'natural lands'. The planting predominantly uses native plants. The garden has educational and research elements. Interpretation and classes educate the public on plants native to the Piedmont region. The team formally trial native plant varieties, publishing outcomes similar to the RHS' AGM programme in the UK.

Figure 2 Map of gardens at Mount Cuba Center

During my week with the Mount Cuba Center team, I worked in different areas of the garden each day alongside the horticulturist responsible for that area. I was already familiar with many of the plants such as *Tiarella cordifolia, Phox divaricata* and *Trillium luteum* as they are used ornamentally in the UK. However, I also learned a number of new species which are either unusual in the UK or not yet introduced. Seeing many of these rarities used at scale was special, and through discussions with the team I learned more about climatic differences, growing conditions and how they cultivated these plants.

Figure 3 Mount Cuba Center, Erythronium americanum carpeted many areas within the naturalistic plantings

Figure 4 Mount Cuba Center, Sarracenia presented in pot displays in the Formal Gardens

Figure 5 Mount Cuba Center, naturalistic planting Trillium luteum (foreground), Aqulegia canadensis (background)

Figure 6 Mount Cuba Center, naturalistic planting, Trillium luteum, Tiarella cordifolia, Iris cristata, Phlox divaricate

Figure 7 Mount Cuba Center, work activity, planting Nymphaea odorata

Figure 8 Mount Cuba Center, Sanguinaria canadensis with educational plant label

Figure 9 Mount Cuba Center, Educational display inside Colonial-Revival style house

Figure 10 Mount Cuba Center, trails running through 1000+ acres of 'natural lands'

I concluded my first week with a visit to Shenks Ferry Wildflower Preserve. The wooded riverine site is 92 acres, and is home to over 70 different species of wildflowers, mostly spring ephemerals. This was my first experience observing most of these species in truly wild (albeit protected) conditions. Plants observed included: *Trillium flexipes*, *Sanguinaria canadensis*,

Phlox divaricata, *Dicentra cucullaria*, *Aquilegia canadensis*, *Viola* spp., *Dicentra canadensis*, *Maianthemum racemosum*, *Podophyllum peltatum*, *Erythronium americanum*, *Claytonia virginica*, *Mertensia virginica*, *Arisaema triphyllum*, *Ulmus glabra*, *Sassafras*, *Saxifraga* sp., *Liriodendron tulipifera*, *Cardamine concatenata* and *Packera aurea*.

Figure 11 Shenks Ferry, massed Trillium flexipes and Phlox divaricata covered the slopes

Week 2

This week started with a long drive south to Atlanta Botanical Garden. As part of this, I drove through Shenandoah National Park, observing *Cercis canadensis, Cornus florida, Amelanchier arborea, Veratrum viride* and others. I also ascended Sharp Top Mountain at the Peaks of Otter, observing *Trillium* spp., *Veratrum viride, Osmunda spectabilis, Uvularia grandiflora, Dicentra eximia, Sanguinaria canadensis and Hydrophyllum virginianum*

Figure 12 Shenandoah National Park views

Figure 13 Shenandoah National Park, Cercis canadensis

Figure 14 Sharp Top Mountain, Uvularia grandiflora

I spent a day with the team at Atlanta Botanical Garden, a 20-acre botanical garden with a wide array of plantings. These varied from high-intensity bedding schemes to conservation-focused collections.

Figure 15 Atlanta Botanical Garden, Alice in Wonderland 3d bedding

Figure 16 Atlanta Botanical Garden, area 'inspired by Sissinghurst White Garden'

Figure 17 Atlanta Botanical Garden, Sarracenia collection

I then spent 4 days attending the Spring Wildflower Pilgrimage in the Great Smoky Mountains National Park. This is an annual event, offering a wide variety of activities including many hikes led by qualified botanists. The botanists leading each hike were licensed to pick (but not remove) plant parts for educational purposes, and we observed a wide array of plants. Many of these plants are used ornamentally in the UK. I participated in the following hikes:

- Weds am: Blossoming Wisdom: The Heart of Flowers – structures form and function
- Weds pm: Wildflower and Cascade walk along Middle Prong trail
- Thurs am: Wildflowers and shrubs on Grapeyard Ridge
- Thurs pm: Moss walk, Indian Gap to Newfound gap
- Fri: Petals, Sepals and Peoples at Meigs Creek
- Sat: Summit Splendor: exploring high elevation trees and shrubs

This allowed me to explore different locations in the Great Smoky Mountains National Park, at varying elevations. The dominant canopy of Castanea dentata was lost following introduction of Chestnut Blight in the 1920s. Now Liriodendron tulipifera dominates much of the upper canopy, alongside Betula alleghaniensis, Acer saccharum, Tsuga, Magnolia and a number of other genera. The habitats can be divided into 3 archetypes: cove hardwood, northern harwood and boreal forests. The understory is incredibly diverse. Observing these plants in their natural habitat improved my understanding of their growing requirements, as well as how they form natural communities.

Plants I observed included: *Cornus florida, Podophyllum peltatum, Phlox divaricata, Tiarella cordifolia, Maianthemum racemosum, Magnolia tripetala, Magnolia fraseri, Magnolia acuminatum, Liriodendron tulipifera, Rhododendron catawbiense, Cercis canadensis, Kalmia latifolia, Robinia pseudoacacia, Amelanchier arborea, Quercus spp., Betula spp., Trillium luteum, Trillium grandiflorum, Leucothoe fontanesiana, Campsis radicans, Gelaris spectabilis, Goodyera pubescens, Trillium erectum var. albidum, Geranium maculatum, Hydrangea arborescens, Polygonatum spp., Viola spp., Tilia americana, Itea virginica, Trillium simile, Trautveteria, Caulophyllum thalictroides, Cornus sericaea, Aristolachia macrohphylla,*

Thalictrum thalictroides, Arisaema spp., Halesia tetraptera, Iris cristata, Tsuga canadensis, Asarum, Smilax glauca, Medeola virginiana, Amauropelta noveboracensis, Polystichum acrostichoides, Pyrularia pubera, Sitobolium punctilobulum, Ilex opaca, Hypoxis hirsuta, Carrya glabra, Uvularia puberula, Salvia lyrata, Calycanthus florida, Epigaea repens, Conopholis americana, Adiantum pedatum, Veratrum viride, Sanguinaria canadensis, Aesculus flava, Osmunda cinnamomea, Trillium vaseyi, Dryopteris marginalis, Actaea racemosum, Caulophyllum thalictroides, Stellaria sp., Mitchella repens, Antennaria plantaginifolia, Rhododendron calendulaceum, Tipularia discolor, Pinus strobus, Coreopsis major, Trillium undulatum, Cypripedium acaule, Hepatica acutiloba, Viburnum lantanoides, Abies fraseri and many many more.

Figure 18 Smoky Mountains, Gelaris spectabilis

Figure 19 Smoky Mountains, Iris cristata

Figure 20 Smoky Mountains, Rhododendron calendulaceum

Figure 21 Smoky Mountains, Trillium luteum with Geranium maculatum

Figure 22 Smoky Mountains, northern hardwood forest transitioning to boreal forest

Figure 23 Smoky Mountains, high elevation boreal forest

Week 3

My third week was spent at Chanticleer, Pennsylvania. Adolph Rosengarten purchased a plot to construct a summer house from 1912 which was then converted into a permanent residence in 1924. Adolph Rosengarten Sr. started purchasing neighbouring plots in 1933 to provide houses to his children and family. However, the gardens did not see significant development until 1990 when Adolph Rosengarten Jr. left it for the enjoyment and education of the public following his death. Utilising the already mature trees, the gardens team have developed a complex and varied tapestry of plantings across the 50 acre site in the 35 years since.

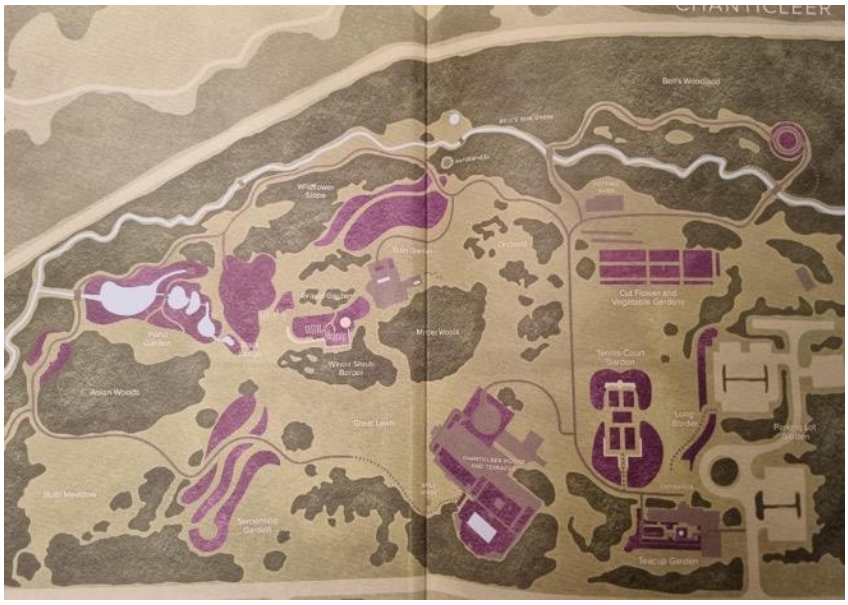

Figure 24 Chanticleer garden map

Working alongside a different senior horticulturist each day I learned about the different areas of the garden. Each horticulturist discussed their own approaches to planting design and maintenance, as well as their own sources of inspiration. Chanticleer is an exemplar of the modern art and craft of gardening. Each detail is considered. While each area has it's own unique planting palette and character, the garden is cohesive. When trees are felled, the wood is processed and crafted by the team into furniture. Although each piece is unique, the use of repeated motifs draw them together. Similar details throughout the garden prevent the different areas becoming disparate.

Figure 25 Chanticleer, gardens closer to the main houses are more formal in style

Figure 26 Chanticleer, to the rear of the House are intensively maintained borders albeit in 'cottage' style

Figure 27 Chanticleer, to the rear of the house, a neatly edged and mown border to the meadow retains some formality

Figure 28 Chanticleer, Creek Garden plantings are much looser and almost naturalistic

Figure 29 Chanticleer, innovative ways of displaying plants, engaging visitors in unexpected ways

Figure 30 Chanticleer, displays are changed regularly

Figure 31 Chanticleer, creativity are critical skills for the team

Figure 32 Chanticleer, the Gravel Garden originally drew inspiration from Beth Chatto's Dry Garden

Figure 33 Chanticleer, in the Gravel Garden plants are not irrigated except when planted. Self seeders are encouraged, with subsequent editing creating a dynamic planting which is never the same the following year

Figure 34 Chanticleer, a bench crafted by the garden team utilises motifs repeated from other items of furniture

Figure 35 Chanticleer, in the Asian Woods split bamboos bounds the path, directing visitors

Figure 36 Chanticleer, in Bell's Woods, the same split bamboo is used to train clematis. This repetition of material helps tie the different areas together.

Week 4

My final week was spent in New York. This included spending time with the Brooklyn Bridge Park Project team. Here planting and maintenance practices are ecologically based. Keystone species were identified, and practices altered to create habitat for these species.

Figure 37 Brooklyn Bride Park Project, the location is a very urban area

Figure 38 Brooklyn Bridge Park Project, the parks are located on disused piers. Growing media had to be specified based on the calculated load bearing capacity of the piers

Figure 39 Brooklyn Bridge Park Project, despite the restrictions the planting on the piers has established well

I also spent time visiting Brookyln Botanical Garden, Central Park and the High Line to examine different approaches to planting and maintenance in public spaces.

Figure 40 The High Line, rails reference original use

Figure 41 The High Line, paving continues as slabs linking to rails. Use of sparsely canopied trees creates dappled shade, and interplay of light and shadow

Figure 42 The High Line, bright green foliage and white flowers with white stems prevent shady area feeling dark and oppressive. Repetition of elements creates continuity along the planting.

I finished my trip with a visit to New York Botanical Garden. It was New York Botanical Garden which had staffed the 1933 plant collecting expedition co-sponsored by Lawrence Johnston, creator of Hidcote. We had known relatively little about this expedition, but the New York Botanical Garden were able to share their original records.

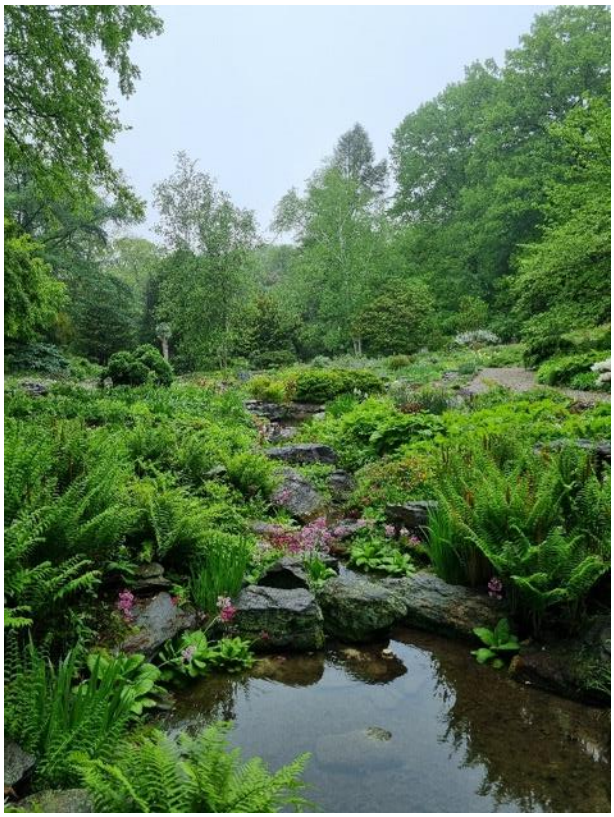

Figure 43 New York Botanical Garden, Rock Garden

Figure 44 New York Botanical Garden, Rock Garden

Many of the plants collected on the expedition (only seed being sent to the RHS in the UK for distribution) are believed to have been planted in the Rock Garden which was created in 1930.

Unfortunately, none of the documented collections remain alive. However, the expedition collected over 40 herbarium specimens, which are still preserved in the botanical garden's herbarium. Some of these specimens were recorded as collected from locations I had visited while in the Smoky Mountains, and in some cases in had observed those species in that location on my own visit such as the Actaea podocarpa (see Fig. 46).

Figure 45 New York Botanical Garden, Herbarium specimens collected by 1933 expedition

Figure 46 New York Botanical Garden, herbarium specimen of Actaea podocarpa collected 1933 Newfound Gap

Conclusion

I have significantly increased our knowledge at Hidcote of the 1933 plant collecting expedition co-sponsored by our garden's creator. Previously, we had only documents outlining a loose proposal. As part of this project, New York Botanical Garden have shared with us the detailed report of the expedition, including the itinerary and details of collections. They have also digitally shared herbarium specimens. While we still don't know exactly which batches of seed Lawrence Johnston received from the expedition, we now know the expedition collected plants that Johnston grew or introduced to UK horticulture in the 1930s we did not previously know the origin of.

I have improved my own knowledge of the region's flora. I was already familiar with many of the genera, working with them already. However, I learned many new species and through my time accompanying botanists in the Smoky Mountains gained confidence in distinguishing between them. Observing them in their native habitat has helped me understand the different ecological niches they each fill, and the subtleties in the differences of their preferred environments. I have also learned new plants such as Iris cristata which are not common in UK horticulture, but I think have significant ornamental potential and will be experimenting with.

Spending a week with both the Mount Cuba Center and Chanticleer gardens team each has given me the opportunity to observe and reflect on different approaches to working and managing gardens. In terms of working practices, both teams planted extensively from 'flats' – trays of very deep but narrow radius cells – rather than 1l or 9cm pots. The deeper roots of the plugs in these may increase resilience during establishment and I intend to trial this in 2026. Teams also extensively used soil knives (aka hori-horis). The approach to planting out the new Creek plantings at Chanticleer, using marker flags to signify batches of different plants, is something I have already used in my own planting projects.

At both gardens there was also significant emphasis on taking time to reflect and edit plantings, preserving naturalistic presentation. In each, senior horticulturists had ownership of areas and were enabled to pursue their vision. Both teams saw maintaining high-quality plant records as essential to understanding their gardens and interpreting them to visitors. And the approach of the Chanticleer team in particular to craft, creativity and personal-development will stay with me, and cause me to reflect on what could be incorporated into my own practice.

Discussions with many horticulturists I met had resilience at the forefront. Gardens and landscapes were significantly impacted by both a changing climate with higher prevalence of extreme weather events and increasing numbers of introduced pests and diseases. Resilience in the face of such threats should likely be central to future projects to ensure their success – increasing genetic diversity within plantings, applying best practice soil-management and being aware of specific incoming threats.

My trip to the USA, exploring the flora of the Appalachian region was an incredible experience and I will be forever grateful to the Royal Horticultural Society, the Merlin Trust and the National Trust for their enabling financial contributions. I must also thank all those at the host gardens who made time to discuss their gardens and collections with me.

Figures