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# The Magic of Cyclamen

By John Lonsdale

Many genera of alpine or rock garden plants contain species that span a broad spectrum of horticultural interest, from the stunningly beautiful through the botanically interesting to the downright ugly. This is true of several genera within the family Primulaceae, including Primula itself. By contrast, the genus Cyclamen, also in the Primulaceae, is one of few whose numerous species and cultivars are universally appealing.

Cyclamen are endowed with charming flowers ranging in color from near red through pink to white, frequently with contrasting markings at the nose which can extend into the petals; some are even bicolored. Flower shape varies considerably, including the slightly dumpy C. parviflorum and some C. coum, the propellers of C. alpinum, or the long, elegant, twisted gems of some C. graecum. If further encouragement is needed, different Cyclamen species can be found in flower at any time from July through to May. They possess a variety of fragrances, and variably shaped, beautifully marked leaves which give interest and much pleasure long after the blooms have gone. The foliage alone justifies growing them and causes the afflicted to raise vast numbers of plants from seed in search of a further extension of the myriad of leaf patterns already available.

The ease of growing most Cyclamen species adds to their horticultural value. Cyclamen hederifolium, C. purpurascens and C. coum form the backbone of species found in gardens in zones 5 through 8. The remaining sixteen or so species that are in cultivation make excellent garden subjects in appropriate climates and sites (most are at least frost-hardy), and those whose basic needs cannot be met without protection are wonderful pot subjects under glass.

## Species and Cultivars

Of the approximately twenty species currently recognized by botanists, all but one are in general cultivation. Almost all have been further subdivided, either botanically or horticulturally, and a number of interspecific hybrids have been described. Though it is impossible to do justice to all the variants here, I will briefly discuss the merits of the species and highlight some of the newer and more interesting forms now becoming available. The premier garden Cyclamen species, C. hederifolium, is discussed in greater detail, as is C. graecum, the queen of the species generally considered not frost-hardy, but a superb pot subject.

Membership in the Cyclamen Society is essential if one wishes to learn about and grow a wide variety of cyclamen from seed and become familiar with the more unusual forms. The Society produces two excellent bulletins each year and is a unique source of fresh seed, gathered both from members' cultivated plants and from plants responsibly collected during Society expeditions.

For our purposes, the species can conveniently be divided into those that flower in fall and those that flower in late winter and spring. Depending upon how you look at it, the cyclamen season starts or ends with Cyclamen purpurascens. I prefer "starts": the welcome flowers of this woodland plant arrive in the dog days of summer, accompanied by a delightful sweet fragrance and leaves that can be plain green (in the form known as 'C. fatrense ') or well-marked with silver or pewter splashes. Sometimes the entire leaf is washed with silver. Cyclamen purpurascens is remarkably cold hardy, tending to object more to the heat of the summer, when considerable shade is beneficial in hot climes. It has probably the shortest dormancy of any species—in fact, the emergent flowers and leaves often coincide with the final throes of the previous season's foliage. The usual color range is pink to near-purple, and white forms are rarely encountered. The recently described C. colchicum is a close relative of C. purpurascens.

**Cyclamen purpurascens**

Of all the species, Cyclamen hederifolium is probably the most garden worthy. Not only will it provide flowers throughout the fall, it will also reward you with a carpet of beautifully marked leaves for up to nine months of the year. In the wild, C hederifolium is a woodland plant, but in the garden, it tolerates a wide range of conditions as long as it has a well-drained but moisture-retentive soil. Once established, it happily seeds itself around, and in a few years a large drift can result, with seedlings in leaf forms that can be totally different from those of the parents. Individual corms can be very long-lived, reaching the size of a dinner plate. The corms lie at or just below the soil surface. In our garden in southeastern Pennsylvania, we have many thousands of plants seeding extensively on a south-facing woodland slope. In large populations, one often sees the first flowers as early as late July, especially after a rainstorm, but the main display is in October, before the leaves emerge.

**Cyclamen hederifolium**

**Fall Woodland**

Cyclamen hederifolium is distributed in southern Europe from southeastern France and Italy through mainland Greece, on the Greek islands down to Crete, and eastward to southwestern Turkey. It is also known from Bulgaria and the former Yugoslavia. Thus, it is not surprising that it is quite variable. Plants with pink and white flowers are found throughout its range; whites are much rarer in the wild than in cultivation. Dark purple and red flowers have recently been added to the palette. The leaf shape varies tremendously, from the usual ivy shape suggested by the specific epithet to remarkable long, thin sagittate (arrowhead-shaped) forms. Leaf marking seems infinitely variable, from plain green to completely silver, with every combination in between. Various named strains (see below) are available, but it is not necessary to hunt them down. Any large batch of seedlings produces a fabulous range of leaf forms.

**Cyclamen hederifolium**

Cyclamen confusum, a tetraploid species from Crete, has much larger, shiny, deep green, leathery leaves, and they tend to flower later, sometimes not until November. Flowers are frequently scented. The corms may be as hardy as the type race, but the foliage (in my garden) is not; leaves seem very susceptible to repeated ice and snow damage. Cyclamen hederifolium ssp. crassifolium is a triploid and has also thicker leaves with the most amazing leaf patterns, and scented flowers.

There are numerous named horticultural forms of C. hederifolium, but few of these are stable enough to produce identical offspring. This brings us to a phenomenon that can cause great joy but also endless frustration to cyclamen growers. Cyclamen are extremely difficult to propagate vegetatively (the corms never form offsets) and are quite variable from seed, and only a small percentage resemble the parent plant. The practice of naming exceptional individual cultivars can cause great disappointment to those growing their offspring. For example, it is now very rare to find plants that in any way resemble the original C. hederifolium 'Bowles Apollo', selected many years ago from the garden of E. A. Bowles. Seed of this cultivar has been widely distributed, and the progeny have kept the name with little or no reference to the original description. Even repeated and rigorous selection and back-crossing with the aim of generating a true-breeding seed strain does not succeed. Although many Cyclamen species can be flowered from seed in two years, it is a very conscientious nurseryman who flowers every seedling and ensures they are true to type before selling them. It seems pointless to give cultivar names to cyclamen unless backcrossing the best seedlings with the original has produced a strain that breeds at least 95% true, and the distinctive characteristics of the cultivar are published, well understood, and adhered to.

Cyclamen africanum is virtually indistinguishable by eye from C. hederifolium, although its flower and leaf variation is not nearly so spectacular. Hybrids between the two species are reported to occur freely, and it can be very hard to tell exactly what one is growing. The leaves may rise directly from the tuber whereas in C. hederifolium they spread laterally before rising. In a pot this is often manifest by a ring of leaves around the edge. If in doubt, plant it out: by the end of the winter, you can identify the dead plants as C. africanum.

Cyclamen intaminatum, C. cilicium, and C. mirabile are three small Turkish species that are undeniably elegant, hardy, and very floriferous from relatively small tubers, blooming somewhat ahead of the foliage. C. intaminatum is a delicate beauty that usually begins flowering with me around September, slightly before its two relatives. Plants would be lost in the open garden, the individual scentless flowers being only less than 1 inch long. The leaves, small and round, can be plain or faintly traced with silver. The flowers are marked with faint gray veins from nose to tip and are usually off-white but can be pale pink. However, beware! The pinkness of a "pink" form varies considerably from year to year in a way that I have not been able to consistently correlate with any particular environmental or cultural condition. My two-best pink-flowered plants were both as white as the driven snow in the past two years!

**Cyclamen intaminatum**

Cyclamen cilicium is another species of quiet charm, relatively invariant in both flower and leaf form. The foliage may be plain green or, more usually, may have a creamy-silver hastate (spearhead) pattern; the flowers may be pink with deeper markings around the mouth, or pure white. Darker pink forms are becoming available, and all have a delightful honey scent.

**Cyclamen cilicium**

Cyclamen mirabile is perhaps the most exciting of these three Turkish species, especially with the introduction of some cultivars by the late Peter Moore of Tilebarn Nursery in the UK. Flowers of C. mirabile are delicately fimbriate (fringed), and the rounded leaves can have a curious puckered appearance, with marginal teeth, which are absent in C. cilicium. Flower color can be pink or white, the latter being characteristic of the cultivar 'Tilebarn Jan'. 'Tilebarn Nicholas' and 'Tilebarn Anne' were selected because of their remarkable leaf coloration, especially in the juvenile stage. 'Tilebarn Nicholas' has a bright raspberry flush in an outer band on the young leaves, the inner portion of the leaves being marked with a glossy green "Christmas tree." The raspberry eventually fades to a muted pewter shade. In 'Tilebarn Anne', the entire surface of the young leaves is raspberry pink, producing a spectacular display.

**Cyclamen mirabile**

**Cyclamen mirabile Tilebarn Anne and Tilebarn Nicholas**

Cyclamen rohlfsianum is a very distinctive species and quite tender; even a light frost burns its foliage. It is native to Libya. The flowers are unique in that the cone of stamens protrudes well below the mouth, somewhat resembling a dodecatheon. Flower color is pale to deeper pink, the petals often being finely veined in pink. A single white-flowered plant has recently appeared in cultivation. The leaves of this species are coarse, wider than long, and lobed, with a coarsely toothed margin; they can be bandebd with cream or silver markings. It is the one species that appears to benefit from a totally dry dormancy. C. rohlfsianum is relatively stingy with its flowers.

**Cyclamen rohlfsianum**

If Cyclamen hederifolium is the premier garden cyclamen, then Cyclamen graecum is the ultimate species for pots in gardens colder than a warm zone 7. In the wild, it can be found in the harshest habitats, often with its tubers squeezed into rock crevices in the heat of the Mediterranean sun. Tough contractile roots hold the tuber tight to the substrate and delve deeply in search of moisture to sustain it through the hot, dry summer. Herein lies the secret to successful cultivation and flowering: a dry tuber with a hint of moisture deeper in the compost. There are several ways to achieve this, one being to sink the pots in a sand plunge kept barely moist during summer. Pots stood on the ground often have considerable root activity out of the drainage holes searching for moisture, and this also suffices.

Cyclamen graecum ssp. candicum

Botanically, C. graecum is now split into two subspecies: ssp. graecum from Greece and its islands, including most of Crete but excluding Rhodes, and ssp. candicum from a small area of the White Mountains in Crete. Cyclamen graecum ssp. anatolicum from Turkey, Rhodes, and North Cyprus is now Cyclamen maritimum. All forms are beautiful plants, with leaf markings second to none in the genus: various shades of green, cream, gray, and silver form intricate patterns that include shields, borders, splashes, and veining. The leaves, which may be very large or so small they seem to form a cushion, can have a velvety texture, adding to their appeal.

Cyclamen maritimum

Cyclamen maritimum

It is impossible to speak too highly of Cyclamen graecum. It has a reputation of being difficult to flower well, but, given the correct summer treatment, it blooms profusely. It is easy to become obsessed with this species alone. This species seems particularly to resent over-potting (being grown in a pot that is too large for the corm), so repotting every three or four years is appropriate, when the corm and roots seem ready to burst the pot. Short spells below freezing seem not to damage leaves or corms.

The last of the fall-flowering species is Cyclamen cyprium. The flowers are white or very pale pink with attractive darker markings and very prominent auricles, the little "ears" that stick out at the bottom of the flower. It also has a pronounced spicy scent. The leaves of the type form are relatively plain but distinctly angular; in the cultivar 'E. S.', however, they are fabulously spotted and blotched with cream-silver. C. cyprium is more frost-hardy than frequently claimed. One of the most attractive cyclamen hybrids, C. x wellensiekii, has C. cyprium and C. libanoticum as its parents and is intermediate between the two.

Cyclamen alpinum

Although slightly out of chronological order, we can consider Cyclamen libanoticum here. The flower is uniquely large and a lovely pale pink, paler at the nose, with little trace of auricles. It tends to be few-flowered, and the leaves are not spectacular, although better forms can be selected. It has a distinctive peppery fragrance. Like the previous species, it withstands several degrees of frost.

Cyclamen coum, C. alpinum, C. elegans and C. parviflorum form a complex of related late winter- to spring-flowering species. Cyclamen alpinum is reasonably cold-hardy and is best known for its flowers, which are shaped like propellers and have a lovely spicy scent. They are pale to deep pink; a handsome white form is rarely encountered. The leaves can be attractively spotted with silver. Cyclamen

elegans is desirable for its heart-shaped (rather than round) glossy leaves and flowers with beautifully pointed petals. Cyclamen parviflorum is a high-alpine Turkish species that can be very challenging in cultivation. Its flowers are small and dumpy, and with its small, plain, round leaves, it is not the glam queen of the genus. It does have a quiet presence that could border on charm to some beholders.

**Cyclamen coum**

**Cyclamen coum**

Cyclamen coum is the spring counterpart of C. hederifolium, making a superb garden plant in many regions and coming in a variety of flower colors and leaf patterns. Many cultivars have been named, and forms true to type are well worth seeking out. Although the tuber is undoubtedly completely hardy, the leaves can be damaged by repeated snow and ice in severe zone 6 winters without reliable snow cover.

**Cyclamen pseudibericum**

Cyclamen pseudibericum is the most beautiful of the species flowering in mid-spring. The sweetly fragrant, long-lasting flowers are large and bold yet retain elegance; they are usually deep purple -magenta, or a lovely rose pink in forma roseum. The leaves are beautifully shaped, the better forms being strongly marked with gray green through cream-silver over a very glossy dark green background.

Cyclamen persicum is often ignored in any discussion of "proper" cyclamen because it is perceived to be responsible for the florist's cyclamen. Nonetheless, it is well worth growing in its wild forms, with flowers from palest pinks to pure white. The cultivar found on the island of Karpathos and named after it as 'Tilebarn Karpathos' is the most stunning, with flowers of intense cerise. In some ways, this species masquerades as a spring version of C. graecum. It is hardier than often supposed and can withstand temperatures into the low 20sF.

**Cyclamen persicum**

Bringing up the rear in the cyclamen year are the members of the Cyclamen repandum group: the various subspecies and varieties of C. repandum, C. rhodium, C. balearicum, and C. creticum, and their interspecific hybrids. All species are plants of shady places, and they have very thin leaves which wilt easily in the strengthening spring sunshine. All possess refined elegance, sweet fragrance, and fine twisted petals. C. repandum and C. rhodium are relatively hardy and make excellent woodland garden subjects. Cyclamen balearicum and C. creticum have small, white, delicately veined flowers, in the latter species they may occasionally be pale pink, and the leaves are fairly unspectacular, although they can be pleasingly splashed with silver flecks and blotches.

**Cyclamen rhodium**

The flowers of Cyclamen repandum and C. rhodium commonly range from glowing magenta (in C. rhodium ssp. peloponnesiacum var. vividum) to pale pink with a darker pink rim, although there is are fine white forms too. The leaves are heart-shaped and

often deeply lobed or angled; they are the last among the species to emerge and are particularly susceptible to rots brought on by heavy-handed watering. C. rhodium ssp. peloponnesiacum can have pure silver-colored leaves, or even better, foliage spectacularly flecked with silver, as if flicked with a loaded paintbrush. It can often be May before the last flowers depart, leaving only a two-month gap before the cycle starts again with C. purpurascens.

## Garden Cultivation

As noted above, Cyclamen hederifolium, C. purpurascens and C. coum form the backbone of species found in gardens in zones 5 through 8. In our zone 6b garden, C. alpinum, elegans, cilicium, mirabile, confusum, hederifolium ssp. crassifolium, intaminatum, repandum, rhodium and pseudibericum are also reliably cold hardy. Many of the remaining species survive and even thrive outside in areas where winter temperatures do not dip much below the mid 20sF. Correct positioning and soil conditions are crucial. Excellent drainage is paramount; it is ice rather than cold that kills, and bulbs and corms in a soil that was only faintly moist when it froze can survive far lower temperatures than those that freeze in a wet medium. This phenomenon is exaggerated when plants are grown in pots.

Cyclamen require some summer shade, a very well-drained but moisture-retentive soil, and a relatively dry rest during their dormant season. The emphasis here is on "relatively": several species, such as C. hederifolium, tolerate regular summer storms, whereas others require a dry (but not "baked") rest. Bear in mind that species such as C. graecum experience long hot, dry dormancy in the wild, but their corms are frequently very deeply buried, and the long roots are probably always in contact with a cooler, slightly moist substrate. Cyclamen corms can be dug up and/or eaten by mice, voles, squirrels, and other animals and might benefit from some protection, at least for the period immediately after planting.

**Cyclamen graecum seedlings**

## Cultivation in pots

It is possible to grow superb specimens of all species in containers. Although subtle variations in cultivation can benefit certain species, the reality is that most can be treated in exactly the same way. Seed-raised plants always position their corms at the interface between the medium on which they were sown, and the grit used as top-dressing, and this is exactly the way we grow mature plants. Although little or no harm is done by burying the corms slightly, the emerging growth is much more likely to rot off if the compost is too wet.

There is no magical growing medium. I have used soil-based ones, suitably amended with grit and some peat or bark-based material to increase moisture retention. All my bulbs, corms, and tubers are now grown in a mixture of BioComp BC5 (composted peanut hulls and composted bark) and perlite. The pots are top-dressed with a half-inch or so of coarse grit.

As is the case in most branches of horticulture, the real skill comes in turning on the water hose at the right time and pointing it in the right direction for just long enough. Cyclamen are certainly vulnerable to over-watering, especially during dormancy, but it is not desperately difficult to get it about right. Drier is definitely preferable to too wet, and regular observation of your plants should result in relatively few mistakes being made. The growth of many species actually starts weeks or months before top growth is apparent. C. coum is amazing in this respect: the growing points swell, and leaf and flower stalks start to extend in late July, even though they don't flower until mid to late winter. Once growth is noted, it is important not to let the pots get too dry. However, it is best to reserve the onset of regular watering until September or even later, and copious water should be applied only when significant top growth is evident. There is no general agreement on whether to feed cyclamen or not. I now use an in-line injection of 20:20:20 fertilizer every time watering is carried out, but they seem to do equally well with plain water.

Cyclamen suffer from relatively few pests and diseases, especially if the plants are observed regularly and repotted as necessary (under-pot rather than over-pot). Species with deeply delving roots, such as C. graecum, benefit from deeper pots. As discussed above, too wet a medium will cause the corms to rot. By the time this is noticed, either because the plants make no new top growth after dormancy or because the leaves and flowers wilt and yellow prematurely, it is usually too late to remedy. In the UK and in the US Pacific Northwest and Canada's West Coast, botrytis

**Cyclamen hederifolium seeds and seed pods**

can be a problem during fall through late winter; in the eastern USA this phenomenon is very rarely an issue. Spent flowers and flower stems can act as nuclei, so it is best to remove them as soon as possible.

Aphids and mealy bugs can attack cyclamen grown under cover, but they are susceptible to many systemic insecticides. Squirrels and mice have been known to strip seed capsules in the garden and greenhouses, but this is generally sporadic and localized and does no long-term harm to large plantings.

## Propagation

Raising cyclamen from seed is one of life's great pleasures. Vegetative propagation by division of the corms into one or more pieces, each with a growing point, is possible, but it is little used and perhaps best saved for the rescue of diseased corms in which the rot has not spread too far. Growing them from seed, by contrast, is easy and very rewarding. The seed exchange of the Cyclamen Society is unsurpassed, with fresh seed of more than 100 species, cultivars, and wild collections available every year. Endless surprises await you, so great is the possible variation.

Seed should be sown as fresh as possible, typically by late August. The same compost used for mature plants is used for seed, which is surface sown and covered with a ½-inch layer of grit. After watering, the pots are stood in a shady place and kept evenly moist. By late October, here, the seeds start to germinate, and the fun begins. It is beneficial to keep the seedlings, which consist of a single cotyledon leaf, growing as long as possible, keeping them cool, shaded, and well-watered. When they finally go dormant, they should be given more moisture than mature specimens, because they can be very prone to desiccation. Seedlings are potted up singly towards the end of their first summer dormancy, ideally as the plants are "thinking" about waking up. After potting, they should not be allowed to dry out at all. Some species (e.g., C. hederifolium) can flower in their second year, but most require two to four years; C. rohlfsianum generally takes the longest, up to five years from seed sowing.

**Cyclamen purpurascens setting seeds**

Sowing seed collected from one's own plants is particularly enjoyable, and it pays to start with plants with some of the more interesting leaf and flower forms as seed sources. Fertilization is obvious because the flower drops rapidly from the swelling ovary and the pedicel starts to coil or bend to bring the capsule down to within the relatively protected area under the leaves. The way the pedicel coils or loops down is species-specific and is fascinating to watch. Excess heat or dryness, especially in the early phase after seed set, can cause abortion.

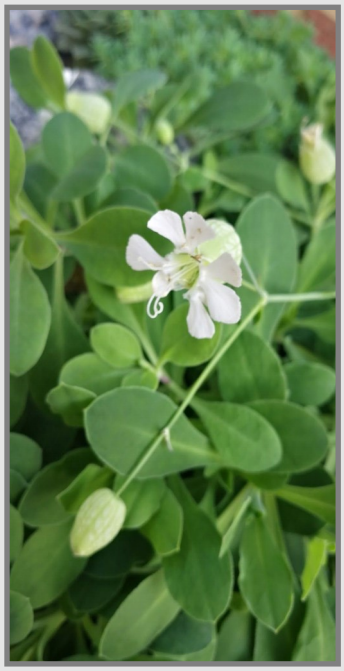
Irrespective of the time of year the seed was set, it ripens the following midsummer. The capsules can be huge on some species but are generally around half an inch in diameter. Just before the capsule splits open, it becomes softer and seeds inside are pale honey-brown and ripe for collection. If you miss this opportunity, the capsule will split. If not harvested, they will either be removed by ants (which love their sticky, sweet coating), or they will rapidly dry and fall from the capsule. All seeds should be ripe by late July, usually later in the garden than under glass.

Cyclamen are beautiful, elegant plants, and growing and raising them from seed is a fascinating hobby, not particularly difficult but incredibly rewarding. Whether you want drifts of plants in the garden or beautiful pot-grown specimens under glass, they offer something for everyone.

Editor's Note: John Lonsdale will be bringing with him to sell to our members eight-to-ten flats of a selection of cyclamen, eranthis, crocuses, snowdrops, species peony seedlings, and trilliums.

# Plant Profiles by Jerry Yu

**Botanical Name**: *Gymnocalycium baldianum*
**Family:** Cactaceae
**Category:** cactus
**Primary Uses**: A highly desirable hardy cactus species
**Dimensions:** 5" wide and tall, flowers up to 2"
‘ wide
**Culture:** Requires very well drained soil and bright, blazing sun. My specimen grows in almost pure gravel on a south facing side of the bed.
**Bloom time:** Early May with occasional reflowering in June. The plant produces a defined set of buds per year (I got 5) but the buds activate in flushes, with dormant buds blooming later in the year. **Color:** The cactus body is a dark grey green, the flowers start out vermillion and transition over several days to hot pink.
**General Attributes:** A superb hardy cactus for scree and rock gardens, this small cactus is a no hassle, no fuss workhorse! The most you will need to provide this cactus with is soil, as it requires excellent drainage and is intolerant of water logging, especially in winter. Otherwise, this cactus is full capable of caring for itself. Starting in March, a tiny ring of buds appears on the growing body, ballooning rapidly in May to large brilliant flowers. And what flowers they are! Not only lasting much longer than regular cactus flowers (my record is 5 days), these flowers change color as they age, creating a bicolored floral display as multiple buds come into flower in succession. The star of my rock garden in May, this humble cactus can be found occasionally in racks at Lowe's where my specimen originated. If buying from there, take care to remove the spongy peat potting mix to prevent rotting.



**Botanical Name**: *Silene uniflora* var. *compacta*
**Family:** Caryophyllaceae
**Category:** groundcover
**Primary Uses**: a frothy filler for your crevices and rockeries
**Dimensions:** 4" tall, with flowers, 10" wide
**Culture:** Thrives in everything from pure gravel to mixes with up to 50% native clay. Supplemental watering only in pots. Takes blazing sun to bright shade. Seeds don't require stratification, but take several weeks to germinate.
**Bloom time:** May to first frost (and beyond)
**Color:** mint ice cream blue-green leaves, white flowers with delicate chartreuse veining on pink blushed balloon like buds.
**General Attributes:** A fast growing and reliable bun of a plant. Plants bloomed the first year from seed and kept on blooming. The plant has quite a
tough streak; my specimens have had to deal with summer desiccation from laziness multiple times, rebounding quickly and completely. Be prepared for the leaves to lose their glaucous blue color in the shade. Highly recommend if you have an empty space in your rock garden you want to make lush.

# Wildflowers of the Appalachian Trail

by Will Hembree

I have always enjoyed the outdoors, and ever since I was just learning to walk, I have gone backpacking with my family in the mountains of southern Appalachia near our home outside of Atlanta. By the time I was finished with the Boy Scouts, I had probably been on enough camping trips for most people's lifetimes. When I got to college, I fell in love with plants through my horticulture classes at the University of Georgia and started to fully appreciate the botanical beauty that stitched together the world around us. When I was finally taken botanizing for the first time in college, my two loves were finally formally introduced. From that point on, as much as my schedule would allow it, I was out in the woods simply for the sake of seeing what plants I could find growing there. So, when my dad and I first had the idea of thru-hiking the Appalachian Trail at the intersection of my graduation from graduate school and his retirement from a career in horticulture, I knew it was an opportunity that I could not waste.

The opportunity to spend months in my favorite place, doing my favorite thing, with one of my favorite people was a very gratifying experience. We covered over two thousand miles of Appalachian flora, encountering over five hundred identifiable species, with many thousands more surely evading our attention entirely. In my mind, we were paralleling the legendary father-son plantsmen duo of John and William Bartram, separated by two hundred - and fifty-years' worth of land development and exotic plant introduction. On many days, it seemed as if the flora around us was entirely alien, and occasionally it seemed as if we had stumbled off the trail for the lack of apparent "wilderness" in sight. But whenever we would come across a plant new to us, which became more and more frequent the further we walked from our home, everything around us stopped as we tried to classify our new floral friend.

Our hike did not start off with a whirlwind of botanical treasures. Hiking out of Amicalola Falls State Park on February 18th, we realized that we were decidedly still in the midst of winter as we summited Springer Mountain. While we kept our eyes open for signs of color on the forest floor, we kept ourselves entertained by taking note of the dormant shrubs and trees around us, learning to appreciate the buds that would soon give way to flowers and foliage. Except for the odd houstonia or cardamine, it took twenty days and a hundred and sixty miles to see our first significant wildflowers, patches of toad trillium at Lake Fontana just before entering the Smoky Mountains. And after that trillium patch, save for the odd claytonia popping out at high elevation in the Smokies, another two weeks would pass before what we could comfortably call spring was upon us. But when it came, it came with a fury. As we passed through Davenport Gap at the northern end of the Great Smoky Mountains National Park, we were greeted with trout lilies, toothworts, miterworts, cohosh, bloodroot, bellworts, and everything that we had been scanning the ground for over the first two hundred miles. From this point on, it didn't really slow down!

*The beginning of our hike saw much more ice than wildflowers. Here is a view near Wayah Bald, NC, taken on March 5th, the morning after a fifteen degree cold front froze most of the rain from the day before.*

*Dad stopped to admire the carpet of Claytonia virginica we walked through for over a week in Tennessee during the beginning of spring.*

To be enveloped by spring each day as you wake up and walk along a mountain trail was electrifying. Every day, I knew we would be finding new treasures potentially at every turn, all the while being treated to some of the most miraculous landscape views in North America. From the Smokies, we quickly crossed over Max Patch, the Roan Highlands, Grayson Highlands, and into the Washington and Jefferson National Forests. By the time we got to the James River in early May, we had seen everything from skunk cabbages to Catawba rhododendrons flowering on the trail. The first seven hundred miles had delivered more to us in terms of plant diversity than I was hoping to find on the entire trail, and with the remaining two thirds farther and farther out of my botanical comfort zone I knew I would be equally gratified with the rest.

*One of the most illuminating days of the entire hike happened in the Jefferson National Forest as we criss-crossed the Blue Ridge Parkway between giant colonies of Trillium grandiflorum.*

*One of the most exciting discoveries of the trail, this was one of two patches of Twinleaf (Jeffersonia diphylla) that we came across in Virginia.*

After a small off-trail break, we resumed our hike four hundred miles north of the James River in Lickdale, Pennsylvania, so that we could keep some previous appointments made with family who would be joining our hike. The difference three weeks and four hundred miles made was stark. Gone were the soaring peaks of the southern Appalachians. It seemed that we had landed on a trail that was much closer to civilization, and much less untouched by all that that brings. Road crossings were busier and more frequent, and fields of grain replaced the unbroken forests that we had grown accustomed to hiking through. But it was summer, and there were still plenty of flowers to be appreciated. There were many days where most of the new plants we encountered were Eurasian field weeds, but to us, they were enjoyable all the same. And of course, native plants still abounded all around us. Over the rocks of Pennsylvania, through the wetlands of New Jersey, and in the rocky woodlands of New York and Connecticut, we were seldom out of eyesight of the blooms of the mountain laurel, *Kalmia latifolia* as well as *K. angustifolia*, a new species to us. The pink and white clouds surrounded us as we were introduced to new wildflowers including rockcresses, moonseeds, meadow-rues, indian hemp,

*The imposing view back over Franconia Ridge, home to Geum peckii and Potentilla robbinsiana. This was, without a doubt, one of the most scenic days of our thru-hike.*

spiraeas and starflowers. When we arrived in Massachusetts, we immediately found our second species of *Cornus, C. canadensis*, which indicated to us that we were arriving in an altogether unfamiliar climate than what we were accustomed to back home.

While the diversity of the flora in the northern section of the trail was perhaps slightly less than what we had encountered in the south, the variety of habitats that were new to us kept us on our toes all the same. We came across our first bogs, filled with sundews and pitcher plants on sphagnum laden shores. Beaver ponds that were ringed with spiraea, viburnum, and Ericaceous species held large mats of floating spatterdock and water lilies. The forests, especially when we began to regain elevation as we headed into Vermont, became much more coniferous in nature. Shrubs and wildflowers suddenly were appearing around us that I was unable to key out in my out in my Weakley's Flora, which had faithfully served us for as long as we were within its jurisdiction of the southern and mid- atlantic states. Orchids, which had been sparse on the journey thus far, were becoming more and more common to see. Ericaceous herbs beyond pipsissewa, including moneses and pyrola were dotting the forest floor. Summiting moosilauke, the first of New Hampshire's infamous White Mountains, we encountered our first true alpine plants. Vast cushions of diapensia covered the rocky, treeless summits throughout the Whites, along with many other diminutive taxa including *Empetrum nigrum, Minuartia groenlandica*, and *Geum peckii.* At the summit of Mount Washington, the climate proved too extreme for everything but lichens to thrive, and I recall being amazed at the huge gap between this landscape at the top of New England and the lush forest that had greeted us as we exited the Smoky Mountains all those miles ago.

Platanthera dilatata *was the first plant that didn't key out in our Weakley's Flora. From this point on, we knew we weren't Kansas anymore*

Carex magellanica, *one of the many species of sedge that were present in the bogs of the northeastern section of the trail.*

The last few hundred miles of Maine were similar to what we had seen since Vermont. Vast coniferous forests between treeless summits dotted with mats of alpine plants, interspersed with occasional mountain top bogs colonized with eriophorum, platanthera, rubus, drosera, carex, and more. I marveled at them as I had been doing along the whole trail, but for the first time for me, the views were actually taking the place of the most beautiful sights of the hike. The wilderness that we experienced in Maine was unmatched anywhere else on the entire trail. I remember thinking about how John and William Bartram would have seen all the landscapes that we had seen as we

*One of the reasons why the views were so hard to beat in Maine. This was the first glimpse of Katahdin, just under halfway through the 100 Miles Wilderness.*

were now seeing Maine - pristinely. The unspoilt nature of the terminal state of the AT, punctuated by the final "hundred miles of wilderness", gave me time to reflect on how much Appalachia had changed since westerners arrived and settled here.

Summiting Katahdin was rather anticlimactic, as I had heard it would be from the many previous thru-hikers I had met along the trail. It was the end of the trail, and as the northernmost high elevation summit of the trail, the flora was relatively depauperate. A few grasses and sedges, some conifers, lots of what we had seen in the Whites dominated the rocky landscape, which was already beginning to feel the first grips of winter. Luckily, our break in May meant we had a last four hundred miles remaining in Virginia, with a victory walk through the Shenandoahs in autumn in our final miles.

As our hike northward out of Pennsylvania had started in a rather cultivated area, so did our final south-bound stretch begin. I was not bothered by this now, as the fields were full of milkweeds, ironweeds, and asters and the woods were filled with lobelias and smartweeds. The chance to see the final season was here, and the trail did not disappoint. Through ever deepening reds and burgundies, autumn cloaked the woods around the trail, first in the pokeweeds, then the sassafras and tupelos. Pawpaws made for plentiful snacks around Harper's Ferry, and the fall herbs gave us reason to reconsider the seasonality of a single piece of earth. What else would we have found here had the hike carried on in a more linear fashion? Would it have been better than all that we were seeing now that otherwise would have escaped our attention for the sole reason of being in the right place in the wrong season? Being able to round out the season of botanizing with the fall flowering herbs such as symphyotrichum, aconitum, and gentiana, as well as the fruits of the forest like the berries of the mountain ash or odd capsules burning bush, which greeted me on the final day of the hike, was an unexpectedly perfect end to the journey.

*There could not have been a more perfect sendoff than being greeted by the James River under clear blue skies to end our botanical foray into the Appalachian Mountains.*

The opportunity to botanize the entire range of what I call my home mountains, beginning before the first buds of spring opened and finishing as the fruits of autumn were falling to the ground, was something I never knew that I needed to do. To become intimately familiar with the Appalachian flora through firsthand observations over the course of a whole growing season and across almost the entire range of the mountains was simply an indescribable experience. The plants that we saw were only a small part of the trip as a whole, but they played such a central role in the journey, stitching together our experiences as we walked each day from one campsite to the next. I truly felt their vitality seep into me more and more as we walked further I hope those who share my passion for the flora of the world can experience for themselves one day.

## NARGS Piedmont Chapter Meeting

JC Raulston Arboretum

***9:30 Gathering Time –10 am Program Begins***

**January 18, 2020**

# John Lonsdale

Edgewood Gardens

Exton, Pennsylvania

## "Woodland Treasures"

Special Opportunity

Lonsdale plant sale of cyclamen, eranthis, crocuses, snowdrops, species peony seedlings and trilliums will be offered at the meeting.

## Goodies to Share

If your last name begins with a letter below, we encourage you to consider bringing a goodie to share with others.

| | |
|---|---|
| Sept A-C | Feb M-P |
| Oct D-F | March R-S |
| Nov G-H | April T-Y |
| Jan J-L | May Picnic |



## Message from the Chair

Cyndy Cromwell

I hope you are all well rested and replete after the holiday season, ready for an exciting lineup of chapter programs and activities. It's one of life's mysteries - how does our Program Chair, Bobby Ward, continue to do his magic, locating excellent speakers, year after year? However he does it, we are so grateful for Bobby's tireless efforts to bring the best of the best to Raleigh.

The New Year kicks off in dazzling fashion, with two *don't-miss-barring-a-calamity* talks. January 18 brings John Lonsdale, nurseryman extraordinaire of Edgewood Gardens, an expert on all sorts of wonderful plants, including *Galanthus, Cyclamen* and *Trillium*. Then, on February 8, NC State's wunderkind Will Hembree, now at Longwood Gardens, will come to talk about his recent great adventure, hiking and botanizing the Appalachian Trail.

Spring is just around the corner in this part of the world, and I look forward to another successful plant sale at the JCRA's Raulston Blooms event on Saturday, April 4. Also in the planning stages are a botanizing trip to western North Carolina, as well as the May picnic.

We've posted photos of chapter members from the recent NARGS *Fall Bulbs of Greece* tour with Lefteri Dariotis on the website *https://www.piedmontnargs.org* in the News section. The NARGS travel program, currently administered by Piedmont Chapter member David White, is an excellent way to visit destinations of botanical interest with outstanding guides. If you aren't already a NARGS member, do consider joining for this benefit alone, not to mention the seed exchange and the beautiful *NARGS Quarterly*. For information on joining NARGS, you may contact Bobby Wilder

## Piedmont NARGS Speakers
### Spring 2020

February 8, 2020
**Will Hembree**
Longwood Gardens
Coatesville, Pennsylvania
**"Wildflowers of the Appalachian Trail"**

March 21, 2020
**Todd Boland**
St. John's, Newfoundland
NARGS Traveling Speaker
**"Spring Alpines of the Spanish Pyrenees"**

April 18, 2020
**Cyndy Cromwell, Nancy Doubrava, David White**
**"NARGS Fall-Bulbs-of Greece Tour"**

Spring Picnic — TBA