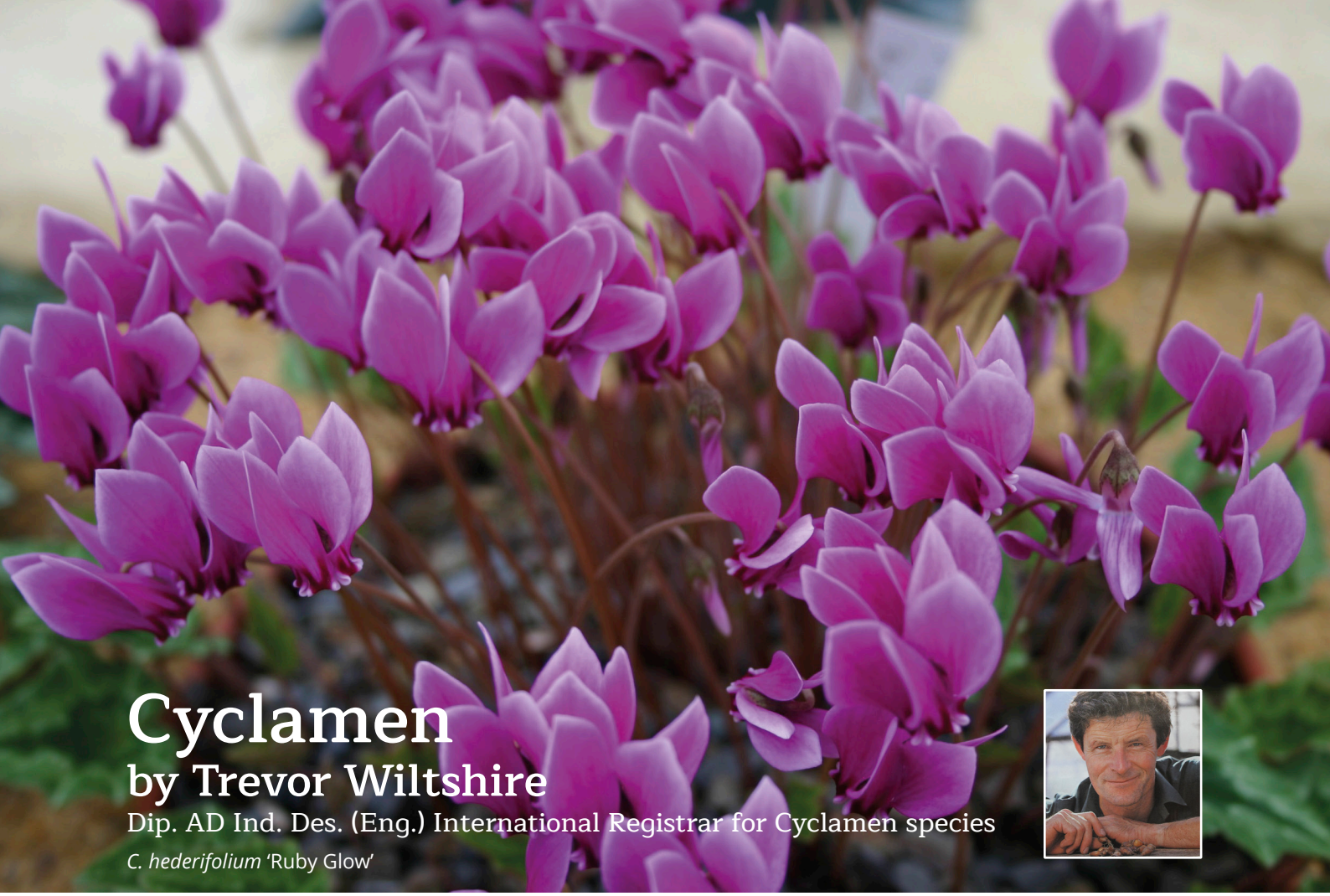


# Cyclamen

## by Trevor Wiltshire

Dip. AD Ind. Des. (Eng.) International Registrar for Cyclamen species

*C. hederifolium* 'Ruby Glow'



**My interest in this genus grew as a result of purchasing a building plot at Gonvena in Wadebridge which I found to be liberally sprinkled with *Cyclamen hederifolium*.**

The plot is in the grounds of a Georgian mansion and I believe the cyclamen probably came from Italy where the family may have gone on the Grand Tour. With so many seedlings to experiment with I could hardly fail to be successful and joining the Cyclamen Society brought me seed from the other available species to try, with varying degrees of success. I was so enthusiastic I joined the Cornwall Garden Society, The Royal Horticutural Society and the Alpine Garden Society. I had no idea at that time that my interest in cyclamen would change the direction of my life, my career and take me all over the world.

I moved from that plot to another, much larger, garden close by and have spent the passing years filling the plot with millions of cyclamen. During this time I changed careers and became a professional gardener at the Royal Horticultural Society. This required a long exile in Surrey but fortunately we kept the garden (and our house) in Cornwall and did holiday letting. This was satisfactory as we were able to carry out some garden care but inevitably plants (and labels!) were stolen in our prolonged absence.

## Distribution:

Cyclamen are members of the family Primulacae which evolved during the Tertiary period 60 million years ago. They have benefited from a lot of scientific investigation, one reason being they are so ancient and pre-dated geological events. This has resulted in interesting questions being raised regarding evolution and speciation. Various universities have worked on the genus, Upsalla and Gothenburg in Sweden, Istanbul, Turkey, Montpelier in France and Reading here in the UK.

When I first grew them in the 1970s they were in the family Primulaceae. By 2000 they had moved to the Myrsinaceae and then in 2009 were returned to the subfamily Myrsinoideae within the family Primulaceae.

It is thought they probably originated in NE Turkey or Iran. Their range is restricted to those countries bordering the Mediterranean with a few species spilling over into Austria, Switzerland, Poland, Hungary and the Czech Republic etc. The main groupings occur from the centre – Italy towards the east. With a strangely isolated species in northern Somalia. They cling on in their native habitats despite the depredations of climate change, goats, developers and unscrupulous collectors.

## Habitat:

Cyclamen generally haunt north facing shady wooded situations with free draining stony soil enriched with leaf mould. I have seldom been disappointed in my search for cyclamen in the wild when these criteria are met. Often they will be found in incredible numbers spilling down hillsides and out into full sun.

I once found thousands of tubers on the island of Zackynthos lying around on the surface under olive trees where they had been rotovated out of the ground by the local farmers. They can be found, depending on the species, from sea level to about 2,150m. In the white mountains of Crete I found *C. creticum* at an altitude of 1,300m happily flowering with the clouds far below.

## The Species:

This number has steadily grown over the decades I have been growing them due to new discoveries and scientific research confirming that botanical naming had been suspect in the past and that what enthusiasts thought all along was correct. So far, 23 species have been described, with the Cyclamen Society seed list carrying over 80 different choices and many named cultivars.

There are many invalid names still used by the horticultural trade. I take as my source the joint Kew Botanic Gardens and the Cyclamen Society publication '*Genus Cyclamen*' 2013 edited by Brian Mathew. I was a collaborator in this endeavour which took a decade to produce! The Cyclamen Society website has been updated in 2016 and is facilitating downloadable pdf files of old journals. The genus is now sub-divided into seven (it used to be four) : invalid names follow the equals sign. i.e = *C. neopolitanum* which is the old invalid name for *C. hederifolium.*


*C. parviflorum*

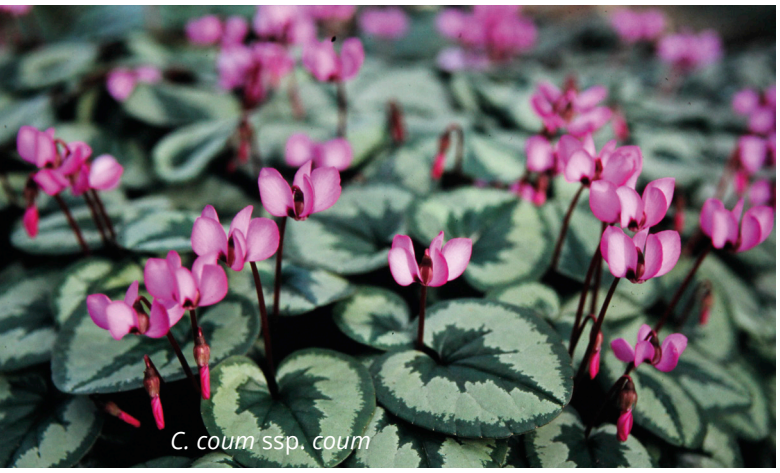
## Subgenus Groups of Cyclamen

(following Grey-Wilson (2002) with modifications)

**Repandum Group (=Subgenus *Psilanthum*)**
*Cyclamen repandum*
*C.repandum* var. *baborense*
*Cyclamen rhodium* = *Cyclamen peloponnesiacum*
*Cyclamen rhodium* ssp. *rhodium* = *Cyclamen repandum* ssp. *rhodense*
*Cyclamen rhodium*
*Cyclamen rhodium* ssp. *peloponnesiacum* = *Cyclamen repandum* ssp. *peloponnesiacum* var. *peloponnesiacum*
*Cyclamen rhodium* ssp. *vividum* = *Cyclamen repandum* ssp. *peloponnesiacum* var. *vividum*
*Cyclamen balearicum*
*Cyclamen creticum*
**Coum Group (=Subgenus *Gyrophoebe* Series 1)**
*Cyclamen coum*
*Cyclamen coum* ssp. *coum*
*Cyclamen coum* ssp. *caucasicum*
*Cyclamen alpinum* = *Cyclamen trochopteranum*
*Cyclamen elegans* = *Cyclamen coum* ssp. *elegans*
*Cyclamen abchasicum* = *Cyclamen coum* var. *abchasicum*
*Cyclamen parviflorum, Cyclamen parviflorum* var. *parviflorum, Cyclamen parviflorum* var. *subalpinum*
**Psuedibericum Group (=Subgenus *Gyrophoebe* Series 2)**
*Cyclamen pseudibericum*
**Cilicium Group (=Subgenus *Gyrophoebe* series 3)**
*C. cilicium*
*C. intaminatum*
*C.mirabile*
**Cyprium Group (=Subgenus *Corticata*)**
*Cyclamen cyprium*
*Cyclamen libanoticum*
**Persicum Group (=Subgenus *persicum*)**
*Cyclamen persicum, C. persicum* var. *autumnale*
*Cyclamen somalense*
**Hederifolium Group (=Subgenus Cyclamen Series 1)**
*Cyclamen hederifolium* = *Cyclamen neapolitanum*
*Cyclamen hederifolium* var. *crassifolium*
*Cyclamen confusum* = *Cyclamen hederifolium* var. *confusum*
*Cyclamen africanum*
**Purpurascens Group (= Subgenus *Cyclamen* Series2)**
*Cyclamen purpurascens* = *Cyclamen europaeum*
*Cyclamen colchicum*
**Graecum Group (=Subgenus *Cyclamen* Series 3)**
*Cyclamen graecum*
*C. graecum* ssp *candicum*
*Cyclamen maritimum* = *C.graecum* ssp. *anatolicum*
**Rohlfsianum Group (=Subgenus *Cyclamen* Series 4)**
*Cyclamen rohlfsianum*

## Pot Culture:

The cyclamen developed its tuber to enable it to survive drought. For many of the species in the wild, the rains cease in April and begin again in October.



*C. coum* ssp. *coum*

Experience has proved to me that it is not necessary to force the plants into a summer rest and seedlings mature rapidly if kept in continuous growth. *C. coum, C. libanoticum, C. cilicium* and *C. intaminatum* have all flowered for me within 18 months of germination. Some seedlings of *C. libanoticum, C. cilicium* and *C. persicum* mature and flower within 12 months.

I am sure that even experienced growers are unsettled by the sight of cyclamen leaves yellowing and withering. Especially regarding species like *C. purpurascens* but this is normal for plants constantly in leaf and it is not an indicator of drought; only that the leaf has reached the end of its lifespan. More water should not be given. Millions of florists' *C. persicum* are killed each winter by their owners as a direct result of over watering. Plants should be watered by standing the pot in water for an hour or two to allow a thorough soaking and then should not be watered again until the leaves lose turgidity; this can be several weeks in winter.

Feel the leaves of your plants to detect the need for water; a strong growing plant well watered should have leaves which feel crisp and stiff and would certainly crack if rolled and pinched between fingers. If they are so limp that they can be rolled up then water is required. Although they naturally grow in poor soil, pampering the plants gives them the robustness to withstand stress from our difficult growing conditions, so whenever I am watering I use liquid fertiliser (I use Phostrogen) at the recommended dosage. If you cannot spare time to individually water then you must do as I have and provide gravel trays to plunge pots up to 25mm deep (up to their rims if practicable), grouping pots and species to each gravel tray so that water requirements are broadly similar and then only water from below by watering the gravel.

## Pots:

Plastic pots are perfectly adequate although some species seem happier. in clay pots and if obtainable I grow a few *C. graecum* and *C. libanoticum* in these.

*C. graecum* ssp. *graecum*

I use the long pots which are usually used for *Clematis* to accomodate the long finger-like roots of *C. graecum*. Never over pot – flowering will be reduced if you do and for exhibition of species with a geniculate habit double potting is necessary. Geniculate means to run underground before the petiole rises vertically – i.e. *C. coum*, *C. hederifolium*. Obviously these plants will run to the pot edge then erupt to give a pot with flowers and leaves clustered all around the edge. If a pot of the correct size for the tuber is placed inside another the leaves and flowers are better displayed centrally in the inner pot. The inner pot's rim is hidden beneath the gravel topping. Toppings are often chosen to suit the natural habitat and forest bark is sometimes used in shows to display species like *C. creticum* and *C. repandum* to best effect. The correct pot size for normal tubers like *C. hederifolium* and *C. cilicium* is one just larger than the tuber to allow potting compost to be run down the inside – just sufficent to get fingers or a pencil all round the tuber. Tuber growth is often rapid and I have needed to cut a pot away from a tuber because the tuber has expanded and distorted a plastic pot so much that it becomes trapped.

## Compost:

I have never been happy with peat based composts with cyclamen, as in our long damp winters they seem to stay too wet and are often too light for the weight of flowers and foliage they carry.

Most enthusiasts recommend their own magic mixture and it all really revolves around individual watering habits. I find that most commercial composts have insufficient air filled porosity (drainage) so I usually add 25% coarse Perlite or gravel (grain size around 3mm to 4mm) and mix 25% John Innes No. 3 with 25% of leaf

mould or sphagnum moss peat and 25% of a good peat based general potting compost. I also add composted potting bark if the mixture is too heavy – I test this by squeezing a ball of the compost to make a snowball sized lump, open your hand and if it falls apart then it's ideal – if not, add more grit or composted bark.
I add a fertiliser base mixture at half the recommended rates (the JI compost and general potting compost have fertiliser added already). Do remember with all potting composts that the fertiliser leaches out quite quickly so commence feeding with soluble fertiliser in all watering after about eight weeks from potting. Cyclamen resent root disturbance so repotting should be done only when the tuber fills the pot or after two years.

## Obtaining Stock:

Although much in demand, uncommon cyclamen are seldom seen in garden centres in Cornwall. The dried tubers frequently seen in garden centres and chain stores are almost never correctly identified, often wild collected they sulk in cultivation and are very slow to break into growth and then only with much care. I never bother with dried tubers as when I have tried in the past I suffered a 50% loss rate. I reserve my own purchasing until I attend the Cyclamen Society shows or annual conference. If you attend the Alpine Garden Society (AGS) spring and autumn shows, young plants are often found at very reasonable prices.

## Seed:

Seed can be obtained of a few species through commercial outlets. The rarer species are offered in the AGS seed list, the Royal Horticultural Society (RHS) seed list and of course the Cyclamen Society list. This benefit is only avaliable if you are a member of those societies.

## Pests and Diseases:

Strong growing, well cultivated plants rarely suffer problems. In poorly ventilated situations under cover botrytis can be troublesome and frequent removal of dying leaves and flowers will help prevent this. As moisture tends to be the cause, spraying with a fungicide must be done when weather conditions are favourable; few, if any, fungicides are approved for amateur use.

Vine weevils (*Otiorhynchus sulcatus*) are usually found when a pot of seedlings suddenly collapse as the white grubs eat roots and embryo tubers. Control is achieved by applying diluted Provado when watering. Provado is toxic for about six weeks after treatment, so wear surgical gloves if you are in contact with treated compost (for instance when repotting plants).

Adult beetles can be found at night by using a torch to search the greenhouse, often found hiding under the pot rim. They are slow moving and extremely tough to crush. They are such a serious pest I once rewarded my children with £l per beetle (this was 30 years ago when a pound was worth something!). They reproduce parthenogeneticaly and each adult can lay up to 1000 eggs over a 2-3 month period. They do prefer to attack *Sempervivum* and *Kalanchoe* and I use these plants as sacrificial bait traps for larvae and adults.

Grey squirrels cause enormous damage by digging up tubers and eating all the seed pods before they ripen, they prefer the most expensive and rare *Cyclamen, Galanthus* and *Crocus*. Needless to say I take appropriate control measures and also ensure they do not get a free lunch at my bird table.

I do ensure the birds in my garden are encouraged by providing food all winter and plenty of nest boxes and nest sites.

When I was at RHS Wisley I noted a fall in pesticide use in the garden was mirrored by the increase of bird food provided in winter and nest boxes being put up. The latter activity was done entirely by staff who enjoyed the antics of the birds when on their lunch and tea breaks!

## Cyclamen in the Open:

Despite our mild Cornish weather I do not see many outstanding displays of cyclamen in gardens. Those that grow well at Trehane and Tregothnan are in very sheltered situations often amongst dense tree cover. Cyclamen cannot stand having their leaves blown to and fro, the leaves being too weak to withstand this treatment for long. The other great advantage of planting in the understory is that the dry soil conditions in summer imitate their natural habitat. I find *C. hederifolium* will grow almost anywhere provided the soil is free draining. It does need watching however, as it crowds out its less vigorous brethren and I find I have to weed seedlings out of my raised bed of *C. mirabile* and *C. coum* before they are swamped by the coarser foliage. In fact *C. hederifolium* is such an effective ground cover that it denudes the beds it grows in of almost everything else. I grow it in association with crocus and snowdrops. If sufficient can be obtained *C. purpurascens* and *C. repandum* seem to do well in gardens but I confess to struggling here to create sufficient extra plants to form a reasonable grouping.

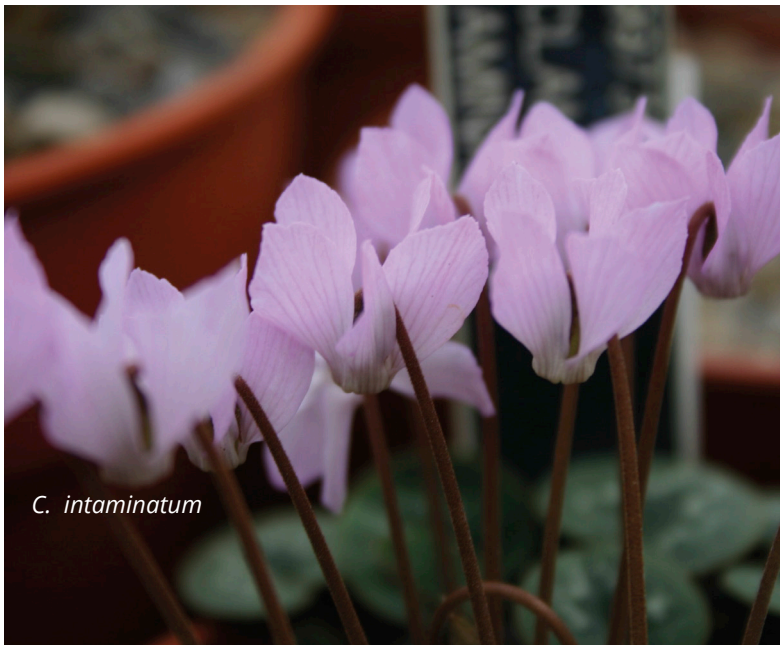
*C. purpurascens at Lake Garda*

I am getting better at growing *C. purpurascens* in the garden and I suspect this is a result of holidays at Lake Garda where I saw it in full flower in July, but you could set your watch by the daily afternoon heavy showers which swept across the mountains. So if we suffer a dry spell in summer – remember to irrigate the *C. purpurascens* to keep them in leaf, they will flower all summer. Frost is a problem when we have wet conditions and a repeated cycle of rain, frost and thaw.

To cosset my plants and avoid damage I roll balls of paper to football size and scatter these over the bed and draw a polythene sheet over the whole bed anchoring it with stones. The layer of air created is sufficient to keep the leaves from being damaged and much precious seed is saved from rotting. Obviously the cover needs removing during the day to allow free air circulation over the beds. This routine is only necessary when attempting to grow the rarer species in difficult situations – I always like a challenge and this extra care is worthwhile. *C. coum* is a plant that associates well with *Primula vulgaris* and *Helleborus orientalis* both grow with *C. coum* in northern Turkey and in fact we were able to spot where *C. coum* grew simply by glimpsing from afar the flowers on the *Helleborus orientalis*.

## Seed:

Seed production in cyclamen can be enhanced by pollinating by hand. Pollen is produced in warm conditions and if the flower is flicked with a forefinger, pollen can be collected on a thumbnail. This is then transferred to the stigmas on another plant (not a flower on the same plant as most cyclamen are self sterile). Seed production is vastly increased by this technique and up to 2,000 seeds per plant can be obtained from a typical florist's *C. persicum*. The seed pods themselves take almost a full season to mature – *C. hederifolium* pollinated in August and September will be ready for harvest from May onwards the following year. Seed pods and individual seeds vary enormously in size according to species, the largest pods and seed being on *C. persicum* with marble sized pods and seeds up to 3mm to 4mm in diameter. The tiniest are of *C. intaminatum* and *C. creticum*. Colour ranges from dark brown to light yellow. Fresh seed taken from a pod which is ripe (it will burst on its own when ready) will germinate very rapidly – usually 14-28 days. You can save time by taking a seed tray or pot to your plant and sow the ripe seed straight from the pod and into the pot or tray.



*C. intaminatum*

**Dried seeds from the seed lists should be pre-treated prior to sowing in the following way:**

Place seed on a kitchen towel laid in a saucer.

Add one drop of washing up liquid (this breaks down the waxy coating protecting the seed, allowing water to penetrate).

Add sufficient water to cover the seeds.

After 24 hours seed will have swollen.

Sow in compost and cover with 12mm of gravel (6mm grain size).

Label with date, source, species etc. Covering with damp hessian helps germination.

Keep at steady ambient temperature (no warmer than 18°C).

Seed should germinate within 28 days.

Fresh seed sown in July is even quicker.

Seeds of cyclamen are naturally sporadic in germination. In the wild they have to withstand periodic severe drought and all freshly germinated seed would perish in a severe season, thus some delay germination to the following and subsequent years. I have some pots of seedlings of *C. cilicium* in which some are flowering within 12 months while other seeds in the same pot are still germinating.

## The Species and Some Named Cultivars:

### *Cyclamen hederifolium*

*C. hederifolium* is the most common and familiar species and is the easiest to grow in our gardens, flowering from July to October. Leaves appear during flowering, extremely variable in shape, from the typical ivy leaf to broadly heart shaped or even spearhead shaped, often with angular lobes, edge sometimes toothed, patterned in pale green, silver or grey on a dark green ground, underside purple or green. There are many named cultivars some are listed here, they are listed with photographs on www.cyclamen.org

### *Cyclamen hederifolium* 'Tilebarn Helena'

This cultivar has white flowers and silver, arrowhead shaped leaves. The original plant was found in seedlings grown by Helena Weisner, an officer of The Cyclamen Society, who gave it to Peter Moore, former President of the Cyclamen Society and owner of Tilebarn Nursery, to bulk up for commercial sale.

### *Cyclamen hederifolium* 'Tilebarn Silver Arrow'

Pink flowered form of *C. hederifolium* with a silver arrow shaped leaf. This cultivar was named by Peter Moore and came from seedlings of 'Tilebarn Helena'.

### *Cyclamen hederifolium* 'Tilebarn Shirley'

This white flowered *C. hederifolium* cultivar has rather narrow leaves, dark green with a bright silver central shield shaped mark. It was developed by Peter Moore at Tilebarn Nursery and named after his sister-in-law.

### *Cyclamen hederifolium* 'Tilebarn Greville'

'Tilebarn Greville' similar leaf to 'Tilebarn Shirley' – central silver shield pattern on a dark green rather narrow leaf but with pink flowers. Again developed at Tilebarn Nursery by Peter Moore and named for his brother, Greville.

### *Cyclamen hederifolium* 'Stargazer'

Stargazer has rather boring leaves that never look healthy, however growers seek out this oddity because of its upward facing pink flowers. Said to be an American cultivar.

### *Cyclamen hederifolium* 'White Cloud'

Phil Cornish developed this beautiful all over silver leaved cultivar and its identical leaved pink flowered sister ('Silver Cloud') in his Gloucestershire garden and has found it comes largely true to form provided care is taken to isolate the cultivars from ordinary *C. hederifolium.*

### *Cyclamen hederifolium* 'Lysander Group'

This seed strain is derived from material collected in the Peloponnese by Dutch nurseryman Antoin Hoog under the collector's number AH8672A, and christened 'Lysander' after the famous Spartan general of that name, who played a very successful part in the Peloponnesian Wars, and was killed in an ambush in 395 BC. Ashwood Nurseries purchased tubers from the 1996 catalogue of commercial exporters Hoog & Dix, and selected one plant which they considered to be outstanding. The main feature of the group is the very deeply-cut leaf margins, particularly well developed in the immature foliage. The whole effect of a mature specimen plant is very striking. The original plant has mid-green leaves with a typical dark green hastate pattern. The strain has been further developed,

and now plants with entirely pewter leaves are also available. The flowers are unremarkable, being the usual pale to mid-pink with a magenta nose. I do not find this comes true from seed, so many seedlings have to be rogued out. You rarely see the real thing for sale!

### Confusion reigns! (forgive the pun!)

One "new" species and one "new" subspecies are recognised *C. confusum* and ssp *crassifolium,* both plants with thicker, fleshier leaves than *C. hederifolium*. Most of us now just label *C. crassifolium,* dropping the ssp tag – saves a lot of ink and time! I consider *C. crassifolium* as a distinct species and treat it as such in my collection. I believe current scientific work will confirm this opinion. I wrote about *C. crassifolium* in this Journal in March 1990 – then remarking that it was a *C. hederifolium* (I collected these plants as seed in Zante in 1983) with unusual morphology and a chromosome count of 68 rather than *C. hederifolium* which has 34.

*C. crassifolium*
Collected seed from Lagana, Zante,1983

Grey-Wilson called this plant *C. hederifolium* var. *confusum*. The publication of Hildebrand's 1898 monograph on cyclamen (translated into English by Erna Frank and edited by Brian Mathew in 1990) revealed this name as erroneous as Hildebrand had described these plants 100 years earlier calling them *C. crassifolium.* Hildebrand was an unusual botanist – he was a keen gardener and grew cyclamen, getting to know his plants intimately, observing them through his microscope and doing superb drawings. It is sad that his very detailed monograph was unknown to English speaking gardeners until so recently. He also named *C. alpinum* = *C. trochopteranthum.* Again reading his work he was well aware of this plant long before Schwartz described it as *C. trochopteranthum* in 1975.
**So to make it clear!** The plant in Crete is *C. confusum* (chromosome count 2n=102 a hexaploid. The plants from the Greek Islands are *C. crassifolium* (chromosome count 2n = 68 a tetraploid) Species with mismatching chromosomes do not readily hybridise. So these races stay pure. Pure white flowered forms of both are known, *C. h*. forma *albiflorum* and *C. c.* forma *virgineum*).

***Cyclamen confusum*** (is the plant found in Crete). Flowers appear in October and November, sometimes later. I often have them still in flower at Christmas. Flowers are pink and sweetly scented. Large (7cm x 7cm) heart shaped fleshy shiny leaves usually appear after flowering, often with angular lobes. The leaves on my own plants have attractive silver centres, the upper surface being shiny and waxy, with purple undersides. We found these in western Crete, in the Kissamos district, particularly the villages of Topolia and Polirinia. Preferred habitat is mixed woodland, olive groves, wooded gorges, sometimes with *C. hederifolium.* I have seen identical plants on the Datca peninsula in south-west Turkey but our collecting licence did not cover that species so they were left there. Maybe they are *C. confusum*.

I have been growing *C. confusum* in the garden here for 25 years and it cannot be mistaken for *C. hederifolium*. The flowers have a wider corolla mouth with more pronounced auricles and more interesting waxy and shiny leaves – glistening in the sun as if they were wet, its late flowering often means seed set is poor as there are few pollinating insects in the short cold days of late autumn. For this reason I keep a few of the best leaved plants in the greenhouse and pollinate with an artist's paintbrush, (see photograph below of Jan Bravenboer's propagation house with paintbrushes in each pot). This is to ensure pollen is not mixed. Cyclamen are usually pollinated by insects but be aware that pollen will drift on the wind.

*C. hederifolium* with dark purple flower (Jan Bravenboer)

***Cyclamen crassifolium*** (is the plant found in Greek islands – especially Zante, Cephalonia, Corfu).
These are easy in the garden but flower late so a warm sheltered spot that gets late autumn sunshine to show off the flowers is ideal.

Leaves of *C. crassifolium* are often pentagonal in shape with thick lamina and a waxy shiny surface. The silver patterning and variable leaf shapes make them stand out when compared with *C. hederifolium*. Flowers are larger and sweetly scented but come much later. If you visit the Ionian Islands in winter you cannot miss the *C. crassfolium* as they seem to grow everywhere.

### *Cyclamen africanum*

This species comes from the mountainous Petite Kabylie region of Algeria and the Kroumerie range in Tunisia, where the rainfall is high enough for cyclamen. It is not reliably hardy here in North Cornwall and the leaves and flowers are unremarkable when compared with the much easier and hardier "new" species so is best kept as a curiosity! Pink, violet scented, flowers appear in September to November. The flowers have very prominent auricles. Leaves are very similar to *C. hederifolium*.

### *Cyclamen cyprium*

I have seen this species on the Troodos mountains in Cyprus still in leaf amongst the snow in April. I will try some plants on my rock garden this year, tucked under a dwarf conifer, south facing and in a rock crevice. I keep my stock plants in the alpine house so that I can enjoy its sweetly scented flowers at Christmas time. On the Troodos it flowers from September to January. The flowers are white with a magenta seagull-like blotch on each corolla lobe and have prominent auricles.
The leaves are very attractive with silver zones overlaid with silver speckling.They have scalloped margins and the underside red to purple. There are named cultivars, John Fielding (the plant photographer and co-author of '*Flowers of Crete')* has named *C. cyprium* 'Galaxy', this has very spotty leaves hence the fanciful name and Peter Moore (formerly of Tilebarn Nursery) named a plant *C. cyprium* 'ES' which has silver mottling named after the originator's initials – Elizabeth Strangman. Very poor forms of both (looking just like straight *C. cyprium*) abound in the nursery trade so look before you buy!

### *Cyclamen libanoticum*

This does well in the garden even flowering in the sward under my trees along with *C. coum* and *Crocus tommosinianus*.

A Cyclamen Society team in March 2014 mapped its distribution around the Jabal Moussa Biosphere Reserve, a limestone mountain region in the valley of the Ibrahim River, Lebanon.

It is also an easy alpine house plant but always flowers too early or late for the Boconnoc show. It does its stuff from late February to early April. Flowers are large 20mm to 30mm long, pink and without auricles at the base. There is an M shaped magenta blotch at the base of each corolla lobe. It has a scent reminiscent of wax jackets and musty hymn books! Heart shaped leaves appear in winter and are fully grown by flowering time, underside red to purple, not the most interesting leaves! There are hybrids between this and *C. psuedibericum* but they are not as attractive as the straight species.

### *Cyclamen cilicium*

I have seen this species many times on my travels in Turkey, along the extensive Taurus mountain range which stretches through the vilyats (provinces) of Adana, Antalya, Icel, Isparta, Karaman and Konya in the south of that vast country.

It flowers September to November and it looked good on the Rock Garden at the Royal Horticultral Society Garden at Wisley where I planted it under overgrown dwarf conifers which had been given the bonsai treatment, cloud pruning. Here the dry conditions up against the trunks suited them well.

The honey scented flowers vary from white to deep pink, with a darker basal blotch. A pure white flowered plant, *C. cilicium* forma *album* is a good plant both in the garden and as a pot plant – easier to grow than the pink form.
Leaves appear in autumn with or after the flowers and are oval to heart shaped, sometimes with hastate pattern in the centre. The underside is red to purple.

### *Cyclamen intaminatum*

I have seen this in north-west Turkey, in the provinces of Bilecik, Bursa, Eskisehir and Kutahya, often found in coppiced oak scrub with *Scilla* and *Crocus*. Unfortunately the scrub is being torn up to make way for orris root production for the perfume trade. Orris root (rhizoma iridis) is produced from the roots of *Iris germanica* and *Iris pallida*.

Flowers appear from September to November, the flowers are white with what appear to be grey veins but are in fact transparent lines. I have seen pale pink forms with darker pink veins, and a few of my plants flower in spring. I have been unable to detect perfume.

The leaves are often plain green in cultivation whereas in Turkey the populations all seemed to have the typical dark green 'Christmas tree' shape on a grey or silver background, the underside of the leaves are green or pale purple.

### *Cyclamen mirabile*

I was involved with a three-year study travelling extensively in Turkey's south-western provinces of Aydin, Denizli, Isparta, Izmir, Manisa and Mugla. Here they have a typically Mediterranean climate, hot dry summers and warm wet winters. It is a beautiful species, both flowers and leaf quite variable and the flowers, white to deep pink, with a perfume of coconut, appearing in October and November. We found a pure white form at Lake Egerdir and this has been named *C. mirabile* forma *niveum*.

We usually found it between 150m to 1,150m, in sandy or gritty soil overlying mica schist, limestone or conglomerate. It prefers partial shade at the edge of coniferous woodland, deciduous woodland, evergreen oak scrub and amongst rocks. It is frost hardy but to thrive in the garden its needs a dry spot all summer – under conifers where it does not get irrigated is ideal. I have a few tubers growing well on my rock garden, south facing in a very dry, sunny site. It is a rewarding plant in the alpinehouse where its perfume is particularly enjoyable. Named cultivars are 'Tilebarn Anne' which has all over silver leaf with a pink suffusion when the leaves are young, 'Tilebarn Nicholas' has a silver leaf overlaid with a christmas tree shaped dark green blotch with pink flowers and 'Tilebarn Jan' similar but with white flowers. The leaves are distinctive with strongly scalloped and toothed edges (reminiscent of a Cornish pasty or crab shell), a dark green 'Christmas tree' centre surrounded by a grey green or silver area, underside red to purple.

### *Cyclamen coum*

I was lucky enough to be chosen as one of four members of the Cyclamen Society to go on the very first field study expedition to Turkey (March - April 1987). We were to study *C. coum* throughout its range in Turkey from the Belgrad Forest on Istanbul's European side right through Asian Turkey to the Georgian border in the east. This is an excellent garden plant and our field study brought back much new material which has improved this plant immensely with new leaf and colour forms. The Black Sea coast and Pontic Alps are not typically Mediterranean in climate, with cool damp summers (like Cornwall) and plentiful winter rainfall. *C. coum* is found from sea level to 2,150m. It is a plant of open coppiced woodland, hazelnut groves, coniferous, deciduous or mixed forest, as long as there is humus rich soil. It does tolerate scrubland and rocky places and can be found in alpine turf.

It is winter flowering so looks good with crocus, snowdrops and hellebores, indeed we often found this association in Turkey. The enormously variable flowers are white through shades of pink to magenta, some scented (reminds me of lavatory cleaner!). The leaves are stunning in good forms, CSE 87055T collected between Ordu and Ulubey on the Black Sea coast and CSE 88397 collected near Artvin in north-east Turkey are both still in cultivation despite 30 years passing.

*C. coum* has an extensive range from south of the Danube in Bulgaria through Turkey and the Caucasus right round the Black Sea to the Crimea. It has also now been found much further south and I saw it two years ago growing with *C. psuedibericum* in the Amanus mountains which have a border with Syria.

The range continues round the north-east coast of the Mediterranean from Turkey to Israel. Oron Peri has recorded many new sites in Israel. A pure white form was found, *C. coum* forma *albissimum* on the Golan Heights and several named cultivars have been raised from this plant. All are tricky in cultivation.

These named cultivars include *C. coum* forma *albissimum* 'Golan Heights', *C. coum* forma *albissimum* 'George Bisson' and *C. coum* forma *albissimum* 'Lake Effect' (an Ellen Hornig variety) which in my experience is the less troublesome.

There are about six named cultivars listed by the Plant Finder. I recommend cultivars 'Maurice Dryden' (see below) which has silver leaves with a green edge and white flowers and 'Tilebarn Elizabeth' which has silver leaves with picotee pink flowers.


*C. coum* 'Maurice Dryden'

Both are not easy in the garden and can only be recommended for alpinehouse culture. Two others to try are 'Meadens Crimson' (dark red flowered plant with unremarkable leaves) and 'Porcelain' (white flowers with transparent veining), again best in the alpinehouse - the rest are dubious names and I would want to see them in flower and leaf before purchase!

### *Cyclamen alpinum* = *Cyclamen trochopteranthum*


*C. alpinum,* Dalyan beach, Turkey

This species was considered endangered and particularly vulnerable when I was asked to participate in field trips for three years mapping its distribution in the Turkish provinces of Antalya, Burdur, Denizli, Isparta and Mugla. We also found it on the Marmaris-Datca peninsula and the Dedegol Mountains all the way to Denizli. It proved to be much more widespread than it had been believed previously. The climate there is Mediterranean and we found *C. alpinum* had a wide altitudinal range, from sea level to 1,700m. On Baba Dag, a mountain above Fethiye and Olu Deniz, it is truly alpine growing in the scree slopes and under cedar trees with deep snow in winter.

At lower levels, it grows in the shade of deciduous trees and shrubs and amongst evergreen oak. We even found it growing on scree below a cliff at sea level adjacent to the famous turtle beach at Dalyan. Flowering is from January to April, dependent on altitude. Flowers smell of muguet and colour can be carmine purple through deep pink to white.

The distinctive character of the bloom is that the corolla lobes do not fully reflex and are reminiscent of a ship's propellor. Leaves are indistinctly patterned, mostly a green 'Christmas tree' centre with pepper like spots all over, especially at the margins and can easily be confused with *C. cilicium*. There is a high altitude ecotype with tiny leaves. Again, can be grown in the garden but needs a dry spot in summer perhaps poked into a wall crevice.


*C. coum* with flowers like those of *C. alpinum*

I have *C. coum* with flowers just like *C. alpinum* (i.e. looking like a ship's propellor) (see above) and it is said that a hybrid between *C. coum* and *C. alpinum* has arisen – it has a pale basal eye on typical propellor like blooms and it has been called *C.* x *drydeniae.* In my opinion as with all cyclamen hybrids they are poor weak plants with nothing to recommend them.

***Cyclamen abchasicum*** = *Cyclamen coum var. abchasicum*
***C. coum* ssp *caucasicum***

These two questionable species of *C. coum* are so similar to ordinary *C. coum* that I cannot tell the difference. I have seen millions of cyclamen in Turkey over the years and their variation in flower and leaf is incredible, however people seize on slight variations and name them – who am I to argue with that?

Russian botanists are splitters and so we also have *C. coum* ssp *kuznetsovii* which has plain green orbicular leaves, pink flowers with a large dark purple sinal blotch. As a gardener I do not bother with these plants as the differences can only be detected close to and normal variation in straight *C. coum* in my opinion would be indiscernable in the morphology. Do some gardening enthusiasts collect labels (with plants attached)? The Cyclamen Society has decided to investigate this conundrum and have already started a programme of field trips. These expeditions will log locations and collect material for DNA investigation to prove this one way or another as has been done with *C. colchicum* and *C. purpurascens.*


*C. colchicum*

***Cyclamen elegans*** = *Cyclamen coum* ssp. *elegans*
Another Cyclamen that flowers for me before Christmas, persisting all through the festive season well into February. The unscented flower is pale pink with a purple sinal blotch at the base of the corolla lobe. It grows isolated from other species along the Caspian sea and into the Elburz and Talysh mountain ranges in Azerbaijan and Iran.

This area does not have a typical Mediterranean climate, the summers are cool and rainfall occurs regularly with plentiful winter rainfall. At altitude the plants get good snow cover in winter. *C. elegans* prefers woodland where the soil is enriched with leaf mould and on the BSBE expedition in 1963 was seen growing

in moss on tree trunks. In cultivation botyritis can be a problem so ensure they get plenty of air movement especially on still damp winter days. A ventilation fan in the alpinehouse is a good investment, to supplement open vents and louvres. I have tried a few plants in the garden where *Primula vulgaris* and *Helloborous orientalis* grow well and they do flower each year. In my alpinehouse I have some silver leaved forms strikingly marked with a bold dark green central rib.

### *Cyclamen parviflorum*

On the 1987 Turkey field trip we saw this growing with *C. coum, Primula vulgaris* ssp *sibthorpii, Helloborus orientalis* and *Galanthus fosteri* at Sumela Monastery near Trabzon. It was in flower in March and continues to flower until June as the snow melts on the Pontic Alps. The pink slightly scented flowers have stripes inside the sinus (reminiscent of pyjama stripes!) with a bold purple blotch at the corolla mouth. We found *C. parviflorum* ssp *parviflorum*, growing on the river banks and even in the chokes and islands of midstream amidst dead bracken fronds and dormant bracken. In summer this cover will keep the plants shaded and cool – a clue to their requirements in cultivation as they do not go dormant and need skillful care in summer to keep them watered and thriving.

I grow mine under a greenhouse bench along with small ferns and dwarf primula, this is to remind me to give them extra care! The Trabzon area has heavy snowfall in winter. Indeed it was snowing heavily whilst we were there and as the youngest in the party I was sent up the track to the monastery to check the extent of the snowfield. At 760m I met drifts over my head – the monastery is at an altitude of 1,100m. I saw *C.coum* and *C. parviflorum* all the way up. *Galanthus fosteri* and *Primula vugaris* ssp *sibthorpii* was also present – in flower – all the way up this path. The leaves are present all year on *C. parviflorum*, new leaves appear in September and develop fully by March. The leaves are plain dull olive green, orbicular, although sometimes heart shaped in ssp *subalpinum.* Both subspecies are fully hardy – as you would expect from their altitude range of 760m to 2,438m. *C. parviflorum* ssp *parviflorum* grows in forest conditions and is present in all types, coniferous, deciduous or mixed at lower altitude and is the species we saw at Sumela. Its corolla lobes reflex whereas on ssp *subalpinum,* the high altitude plant found on the Zigana pass in alpine turf at 2,011m, the lobes spread horizontally like *C. alpinum*.

*Cyclamen parviflorum* Sumela Monastery, Turkey

### *Cyclamen pseudibericum*

A very beautiful cyclamen – possibly the best, flowering from March to May, flowers are light pink to purple to magenta, pale pink and pure white forms are known, they have a perfume.

*C. pseudibericum* is an excellent garden plant and our Cornish climate suits it well – in my own garden it can sometimes be too dry in summer so I irrigate them. (An easy way to spot this is to watch *Primula vulgaris* – if that goes limp then the adjacent cyclamen need water too.) A hybrid between *C. pseudibericum* and *C. libanoticum* has produced *C* x schwarzii. Again a hybrid that is less attractive than the straight species.

I was technical adviser on two separate conservation projects in Turkey working as a volunteer for the World Wildlife Fund (formerly DHKD in Turkey); one at Dumlugöze in the Taurus mountains near Alanya was involved with farming *Galanthus elwesii*, the other, involving propagation techniques on rare endemics (including *C. psuedibericum*), was at Başkonuş Kahramanmaraş in the Amanus and Anti-Taurus mountains on the border between Turkey and Syria. I spent several weeks, spread over several years and so got to know *C. psuedibericum* very well. I stayed at the research station teaching students from Istanbul University. This area has higher rainfall than the adjacent areas of Turkey and Syria.

The forests here are moist with lakes and waterfalls – very beautiful. The wildlife here is stunning, with Hoopoe (*Upupa epops*) calling in the forest, crested porcupine (*Hystrix cristata*), Europian elk (*Alces alces*), brown bear (*Ursus arctos*) and wolves (*Canis lupus*) all showing their presence. The cyclamen are found in the forest of oak, beech and hop-hornbeam, also in pine forest and among shaded rocks. The altitude range I found them was from 487m to  to 1,676m.

The geology is limestone, schist and sandstone. In the late afternoon and evening I was plagued by clouds of mosquitos which poured out of solution holes in the limestone like dense clouds of smoke! The soil the cyclamen grew in was rich in leaf mould. *C. psuedibericum* grows throughout the north-east corner of the Mediterranean, in the Turkish provinces of Adana, Gaziantep, Hatay, Kharamanmaras and Osmaniye.

***Cyclamen purpurascens*** = *Cyclamen europaeum*
My wife has an unerring ability to select holiday accomodation within 100m of cyclamen and a family holiday in northern Italy was no exception. We stepped out of our hotel in Limone on Lake Garda to find almost immediately *C. purpurascens*. It was in full flower in July and is so plentiful the hotel staff pick it as table decoration. It is a very hardy plant and grows well up into the screes on the highest mountains. We saw it in deciduous and mixed forest growing under thick leaf litter. The soil was enriched with leaf mould, pine bark and pine needles. It was usually on limestone at high altitude on the Sella Pass 2,243m in the open in scree and in the alpine turf protected by large rocks.
It does well for me here at Pencarn in several different spots around the garden. It does need irrigating in summer – at Lake Garda we could set our watch by the 2pm rainstorm! It likes a moisture retentive soil (I use home-made leaf mould – I collect leaves in autumn storing them in bags for a year until it becomes black and peat like.)

I have a splendid collection of different leaf forms and fanciful cultivar names abound. There is a fine silver leaved form called 'Limone'. It grows well in a cool greenhouse for me. My plants stay in leaf all year and do not go dormant, flowers appear in July and can persist into the new year. Their perfume is superb and it is worth growing for this alone. The flowers lack auricles. A white form, *carmineolineatum*, and a pure white form, *album*, are known. *Cyclamen purpurascens* ssp *purpurascens* is found in the Alps and the Balkans, France, Italy, Switzerland, Germany, Austria, Hungary, Slovenia and Croatia. *Cyclamen purpurascens* ssp *immaculatum* grows in a separate area of the western Carpathians and Tatras in the Slovak Republic.

***Cyclamen colchicum*** = *C . purpurascens* ssp *ponticum*
Another "new" species which at one time was thought to be a form of *C. purpurascens*. The Cyclamen Society in 2013 sent a team out to study its distribution in the Caucasus mountains in Georgia.They found several new sites on steep 60º+ slopes in tree and shrub covered river gorges. As usual the cyclamen were in leaf mould enriched soil in cracks and solution holes in the limestone strata. It was also found in the sub-Alpine area of the river valley. They brought back material for DNA sampling which confirmed its new status as a species in its own right. This is still too rare to try in my garden but as soon as I have spare seedlings I will make the attempt. In all respects it is similar to *C. purpurascens* except the leaf lamina are much thicker with toothed, beaded edges which tend to curl under. I grow this under my benches in the greenhouse never allowing the soil to dry out. I hand pollinate the flowers with an artist's brush, using pollen from one individual onto flowers from another *C. colchicum.*

Jan Bravenboer has named a plain leaved *C. colchicum* cultivar as 'Deirdre'.

***Cyclamen persicum***
This species has been developed over the centuries in horticulture giving rise to the familiar florists' cyclamen that is used as a gift plant at Christmas and Easter.


*C. persicum*

We saw it on our travels in southern Turkey and in Cyprus but it has a much wider distribution. It is found in Algeria, Tunisia, Karpathos, Rhodes, Symi, Chios, through Syria, Lebanon, Israel and into Jordan.

Reports of it in eastern Crete are false as we investigated this on one of several Cyclamen Society expeditions to Crete. I reported at the time (March 1995) that the *C. persicum* was in flower covering an area of 45m$^2$ around a small church past Toplu Monastery but despite searching for over a 900m around the site could not find more. We concluded that the population was as a result of discarded altar decorations which may have occurred many years previously.

Wild *C. persicum* is very different, the flowers and leaves look altogether more "classy" than overblown florists' cyclamen. Indeed I won an award with a silver leaved *C. persicum* at our show at Boconnoc in 2014.
*C. persicum* var. *persicum* flowers for me from December until May.

A Cyclamen Society field trip to Israel in 1990 found an autumn flowering *C. persicum* and this was named *C. persicum* var *autumnale* as it flowers October to January. (It is this find that has brought the more garden-worthy "hardy" bedding *C. persicum* one sees in garden centres these days.) Oro Peri reports from Israel that flowering of the two never coincides, so hybrids do not occur. Flower colour varies from white to deep carmine with a darker pink, magenta or purple area all around the mouth of the corolla. A pure white (forma *albidum*) has been found. Unlike florists' *C. persicum* the wild species has a lovely perfume. Once pollinated the flower pedicel arches over towards the ground. Most other species coil the pedicel like a spring drawing the seed pod back to the tuber.

### *Cyclamen somalense*

I made the pilgrimage in May, 2004 to Gothenburg Botanic Garden in Sweden to see this mythical plant and returned the following year with my rock garden team from RHS Wisley. Chris Grey-Wilson wrote to me in February 1987 with news of the discovery of a new species of cyclamen from N. Somalia apparently related to *C. persicum*. The new species was found 2,800km from the site of any other species. It was found by Mats Thulin, a Swedish botanist and Ahmed Mumin Warfa (a Somali botanist) in the remote north of Somalia. They were general plant collecting for the Somali Flora project. He subsequently returned in January 1997 to the Cal Miskaat vicinity and although the area is visited by nomadic shepherds and their grazing animals the plants did not appear to be under threat. Most plants only had a single flower and he could not find any mature seed pods. One he did collect failed to produce viable seed. Despite Uppsala University and Gothenburg having plants for 30 years they have failed to produce any seed from them. Northern Somalia has a Mediterranean climate – with a wet season from October to April. *C. somalense* shares with *C. persicum* a non-coiling fruiting pedicel, the flowers have a broad corolla opening without auricles, the leaves reminding me of some of my Zante *C. crassifolium* or *C. cyprium*, having pronounced and serrated leaf edges. The leaf pattern is a broad silver hastate pattern. At Gothenburg the plants were in a gloomy lean-to cold frame and looked miserable with only one wizened leaf on the exposed tubers. I would have kept the plant in more light with the tuber at, or just below, the surface.

### *Cyclamen graecum*

Cyclamen graecum is a rewarding plant and I use it all over my garden, usually tucked into wall crevices or at the base of trees or rock outcrops – anywhere there is protection from the elements. I also grow it in my alpinehouse. The exquisite foliage is particularly attractive, outshining the most exotic begonia foliage. I have a white flowered plant (forma *album*) that has a perfume like apples! They flower from August to November and I find they keep their foliage all year round if kept watered. Many old books advocate "baking" plants in summer, forcing them into dormancy. If you want profuse flowering, then keep them growing all year – this is easier in Cornwall because our summers are a lot cooler than those I experienced at Wisley where 37ºC was all too common in summer. The thick roots are best accomodated in 'long tom' pots and watered from below.


*C. graecum* ssp *candicum*

On a family holiday to Crete in April 1986 we found *C. graecum* ssp *candicum* growing in the limestone cliff adjacent to our villa in Platanias. There were plentiful seed pods and the resultant progeny are still alive to this day – thirty years on. They are really beautiful with tiny leaves heavily silvered, the flowers being white or very pale pink with dark purple lines on the corolla, more prominent auricles and a wider mouth to the flower than straight *C. graecum*.

The tubers get massive and often burst the pot, one advantage of plastic pots is that I can cut them off the tuber! In 2013 a tuber weighing 17.5 kg. (38.6 lbs) was recorded.

*C. graecum* ssp *graecum* grows in central to southern mainland Greece, the Peloponnese, the Cyclades, various islands of the eastern Aegean (but not Rhodes) and a limited area of north-west Crete. *C. graecum* ssp *candicum* is restricted to the island of Crete. *C. graecum* grows in a typically Mediterranean climate with hot dry summers and warm wet winters, from sea level to 800m, mainly in open situations, in terra rossa over limestone, in water worn pockets or crevices in bare rock but also under scrub or in old olive groves and even in deep shade.

***C. maritimum*** = *C. graecum* ssp *anatolicum*
Flowers appear from September to November, in shades of pink, scented of apples – sometimes! The auricles are less prominent than in *C. graecum*, of which this was once considered a subspecies – *anatolicum. Cyclamen maritimum* grows on the island of Rhodes, on the mainland, from north of Rhodes, east right across southern Turkey to Silifke, in Cilicia, and in a limited area of northwest Cyprus.


*C. maritimum*

These locations have a Mediterranean climate and *C. maritimum* is found from sea level to 1,000m, mainly in open situations, in terra rossa over limestone, in soak holes or grykes in the limestone. We have also found it under scrub, olive groves and even in deep shade. I grow *C. maritimum* in the garden in the same locations as *C. graecum*. It also does well as a pot plant for showing.

***Cyclamen rohlfsianum***
*C. rohlfsianum* grows in the coastal Jabal al Akhdar mountain range, Libya between Benghazi and Derna. It is a beautiful and interesting alpinehouse subject – too demanding and tender for garden planting even in Cornwall. Flowering commences in September and is usually over by the end of November. Flowering is from September to November, in shades of pink, the flowers scented of musty hymn books and old wax jackets! The stamen cone is clearly visible, protruding from the nose of the flower, which is unique to this species. Similar to a *Dodecatheon* flower. Leaves start to appear during flowering. The tuber gets very irregular with age, up to 20cm or more in diameter and I have known them to spontaneously fall apart when re-potting them.

Too much water early during growth causes the leaves to develop faster than the flowers and hide them. A little water from the base during summer seems to help flower bud formation and not giving larger quantities until the flowers are nearly over seems to work well. A pure white form (forma *album*) has arisen recently in cultivation (1997).

***Cyclamen repandum***
*C. repandum* is a superlative woodland plant well suited to Cornwall. Flowering is from March to May. The variable colours range from red to pink with a darker red or purple nose, lovely perfume always. In most *C. repandum* the reflexed corolla lobes are 15-25mm long, 5-10mm wide but in var. *baborense*, they are 20-30mm long, 7-11mm wide, with pointed tips, generally 180 degrees twist with no auricles at the base. It is excellent in my garden and is taking itself off to whereever it likes; even growing in ancient lime mortared slate walls. It has thin leaves, easily damaged by strong wind or overnight frost, so good shelter is essential and all mine thrive where they are protected from wind, sunshine and frost. They really are intolerant of dessication and should be buried at least 10cm deep. No cultivars have been named but a white flowered plant, forma *album*, occurs quite widely on Corsica and is found less frequently elsewhere. Leaves with brighter patterning, including an all over silver wash, have also been found recently. *C. repandum* var. *repandum* grows in Italy, the coastal regions of Croatia and Bosnia-Herzegovina in the Balkans, the Maures Massif of southern France and on the islands of Corsica, Sardinia and Sicily. Habitats are deciduous and evergreen forest which are moist with copious winter rainfall, from sea level to about 1,300m. I have also found it in scrub and on the shady side of rocky terrain.

*C. repandum* var. *baborense* is found in the Petite Kabylie mountains of north-east Algeria at an altitude from 400-1,800m. It grows in an area of very moist deciduous oak forests with a Mediterranean climate the winter rainfall between 80-200cm a year.

***Cyclamen rhodium***
We saw *C. rhodium* ssp *rhodium* on a family holiday where we explored its locations on Rhodes and Kos. They were still flowering in May. It was growing under scrub amongst rocks, often in pine forest, from 50-800m; ssp *vividum* grows in drier, open places in light woodland, rocks and scrub from 400-1,700m. This species has white to pale pink flowers with a darker nose of pink or purple. A pure white form has been found. In my garden and alpinehouse peak flowering is in late March to early April.

*C. rhodium* ssp *peloponnesiacum* has flowers in pale to deep pink with a dark red or pink nose, a pure white (forma *albiflorum*) is known in the wild. Its location as the name suggests is in the Peloponnese, spread over the eastern, northern and (the main area) central southern Mani peninsula. The habitat here is humid woodland, scrub and screes, from 350-1,500m.

*C. rhodium* ssp *vividum* with dark red to pink flowers with an even darker red or purple nose, a white form is known in the wild. This species' range is in the south-east of the Parnon mountains in the Peloponnese peninsula, overlapping in the north of its range with ssp *peloponnesiacum*. All have a wonderful perfume.


*C. rhodium* ssp *vividum*

The thin leaves appear in February in Cornwall; December in my alpinehouse where I grow it under the benches. The leaves are full grown by flowering time, oval to triangular, edges faintly lobed often with scalloped margins, dark or grey green background with pale green, grey-green or silver markings, from a jagged zone or patches around a dark central triangular area to random splashes all over the surface, underside pale green or purple.

*C. rhodium* subspecies are hardy in Cornwall when planted deeply, 10-15cm. They require a sheltered and damp (not wet) situation. I irrigate in dry summers as my garden is on a south facing hillside with free draining soil only 10cm deep on shillet. They perform well as pot plants in a frost-free greenhouse, well shaded, although ssp *vividum* will take more sun. No cultivars have been named. 'Pelops' was a name given to ssp *peloponnesiacum* when this was considered part of the *C. repandum* group. In cultivation ssp *peloponnesiacum* has hybridised with the closely related *C. balearicum* (*C.* x *saundersiae*) and, since *C. creticum*, *C. repandum* and all the subspecies of *C. rhodium* have the same chromosome number, hybridisation amongst them is possible.

### *Cyclamen balearicum*

We saw this species on a family holiday to Menorca in 2016. It was growing seemingly everywhere the habitat was cool and moist enough. The low hills are dissected by gorges and valleys with forest providing shelter and dense shade. The climate here is Mediterranean with hot dry summers and warm wet winters. The altitudinal range is from sea level to about 1,400m.

Usually in shade on north facing limestone outcrops and in solution holes and crevices in the rock. We saw it in evergreen oak and pine forest. It is present on Majorca, Menorca, Ibiza, Cabrera and Dragonera, in the Languedoc-Roussillon region of southern France and on Corsica.

*C. balearicum* will withstand overnight frost and I treat it in the garden as *C. repandum* – I have planted mine in a slightly warmer spot at the base of a wall in deep shade. *C. balearicum* is closely related to *C. repandum, C. creticum* and *C. rhodium*. In cultivation, *C. balearicum* has hybridised with *C. rhodium* ssp *peloponnesiacum* (*C.* x *saundersiae*) and natural hybrids with *C. repandum* occur on Corsica, where they grow together. Flowering occurs from February to May, the flowers are white, sometimes with a faint pink nose and are delightfully perfumed. Leaves are fully developed by February, small for cyclamen, having a blue green or grey green background with grey, silver or white marbling with purple undersides.

### *Cyclamen creticum*

I was selected to be a member of the team on the Cyclamen Society field trip to eastern Crete in 1995 – this expedition was to seek out *C. creticum* and also look for erroneously reported *C. persicum* and *C. repandum*. I have visited Crete 11 times including a really enjoyable Cyclamen Society Conference which was held at Platanias in October 1996. It is still my favourite Greek island and my visits have always been in spring and autumn when the flowers are at their best and the weather not too hot. *C. creticum* grows on the islands of Crete and Karpathos where the climate is typically Mediterranean but with snowfalls in the White mountains. On one April visit there was snow everywhere including the beaches and many olive trees were damaged by the weight of snow.

*C. creticum* flowers from March to May, white, occasionally pale pink, with sweet lily of the valley scent. Leaves appear late autumn/winter, fully grown by flowering time, heart shaped to triangular, from slightly scalloped to strongly toothed margins, green to grey-green ground, usually with a grey or silver zone but often also with irregular flecks of grey or silver, underside purple. It always grows in shady north facing

gullies, on the sides of streams and in light woodland, from sea level to about 1,300m.

I treat this like *C. repandum* in the garden and one plant has survived for more than 20 years where it has self sown in a wall alongside a path under a yew tree (*Taxus baccata*). Leaves with brighter patterning have been selected and Marc ten Hoope has named his bright silver leaved plant 'Silvery Hope'. In cultivation *C. creticum* has hybridised with *C. repandum* to create the hybrid (*C.* x *meiklei*).

**Conservation**:
Cyclamen are a protected species in the wild and heavy penalties are imposed on illegal trade.

All the Cyclamen Society expeditions conform with the international laws of each country visited, often with collaboration and participation of that nation's Universities and their botanists. CITES licences, phyto sanitary certificates etc. are held for all collected material.

It can take 18 months to obtain all the permissions. The documents often fill a small briefcase!

**A code of conduct has been drawn up by the Cyclamen Society.**

Never collect tubers in the wild.

Never buy dry tubers.

Never buy plants which may have been collected in the wild.

Never use rare plants in order to experiment with new techniques or conditions of cultivation.

Always cultivate with care to reduce losses.

Always propagate and distribute to other growers lest tragedy overtake your own plants.

Always gather seed and distribute it via the seed exchanges.

Buy only growing plants propagated from seed by reputable growers.

**References**
Many back copies of the Cyclamen Society Journal were studied – too many to note! These will be available as pdf files from the Cyclamen Society website in 2017.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