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# Cyclamen

The Journal of the Cyclamen Society

## Contents

The Cyclamen Society is a Registered Charity No 280528.

E-mail for the Journal or Editor may be sent to Editor@cyclamen.org Other Society e-mail may be sent to webmaster@cyclamen.org

Note: The opinions expressed by the authors are not necessarily those of the Editor, or of the Cyclamen Society.

The Society's web site, designed and maintained by Martyn Denney, may be visited at www.cyclamen.org

We welcome small advertisements from members and will print them free (at the Editor's discretion). There is a £5 charge if they are for commercial purposes.

## SMALL ADS

**BULBS FOR AUTUMN 2000** including Crocus, Fritillaria, Erythronium, Iris (Juno & PCI Hybrids), Lilium (seed grown) and, possibly, Cyclamen. Free delivery UK and EU (airmail). Send two first class stamps or two IRC for list to: A Dickerson, [redacted]

**HARDY CYCLAMEN** – most types by mail order UK and EU. www.hardycyclamen.co.uk or 1st class stamp for catalogue to: [redacted]

**CYCLAMEN CORMS AND SEED:** various bulbs and tubers. Comprehensive list of Snowdrops. Available for Autumn planting. Two first class stamps for list. P R Cornish, [redacted]

**CYCLAMEN FOR SALE**. Sorry, no overseas. Also cyclamen seed. Seeds available to UK and overseas from July to October only. SAE for list please or two International Reply Coupons to: Mrs Jill White, [redacted]

**GARDENING BOOKS:** Second-hand and Antiquarian Books on Gardening, Botany, Plant Hunting and Natural History. Catalogue: Valerie Merritt, [redacted]

**CYCLAMEN FOR SALE** by mail order within the UK. Also cyclamen seed available. Please send stamp for brochure and price lists to M Saunders, [redacted]

**MEDITERRANEAN ORCHIDS** – *Ophrys, Orchis, Serapias*, etc – make ideal companion plants for cyclamen. Please send C5 SAE for my 2000 catalogue, which appears in July, to: ORCHIS NURSERY, [redacted]

## PANEL OF EXPERTS

You can get quick free advice on cultivation, pest and disease control and other topics from the Society's Panel of Experts. Please write to the Secretary to the Panel: Graham Simpson, [redacted]
You must enclose a stamped addressed envelope for the reply; overseas members are asked to send two International Reply Coupons.

# News

Eagle-eyed readers of the *Journal* may notice that the News section in this issue is shorter than usual. This is because we have decided to try moving more ephemeral items, and those concerned with the Society's house-keeping to a separate Newsletter, inserted loose with the *Journal*. This should give more space for articles and other items of more permanent interest.

## Cyclamen weekend in Belgium

On 23-24 October 1999 the Kalmthout Arboretum in Belgium hosted a cyclamen weekend, with a Cyclamen Society show – the first ever organised by the Society abroad. It was made possible by the financial help of RHS Wisley and by the efforts of Trevor Wiltshire and Jean Marie Vande weghe.

Trevor took many plants of his own and from the collection of RHS Wisley. He also mounted a display including watercolours and photographs, with information describing the Society's aims and expeditions, and the Society's collaboration with Quest International on scent analysis. His illustrated lecture on cyclamen species in the wild was much appreciated by an audience of more than 70 enthusiasts.

Jean Marie Vande weghe organised this collaborative venture at the continental end, and also prepared informative notes in Dutch on all the cyclamen species, brought 45 of his best plants, all in exhibition condition, and answered questions from visitors in the Dutch language.

The display was manned by Trevor and Margaret Wiltshire and Jean Marie Vande weghe, and also by Eddy Avanture, head gardener at Arboretum Kalmthout (he became a member of the Society soon after the show) and Jean De Laet, a Society member who lives nearby. Jean also manned the sales table.

More than 500 visitors came to see the show, among them quite a few very interested professionals from the Dutch bulb-growing sector; more than 10 new members were welcomed into the Society. The Society's particular thanks go to Jean Marie Vande weghe and Trevor Wiltshire, and to RHS Wisley for its kind financial help.

## Turkish cyclamen booklet

The Society has decided to produce a booklet, illustrated in colour, on the cyclamen of Turkey. It will be produced in both an English and a Turkish language version, and is intended partly as a conservation project, and partly in line with the Society's charitable objective of spreading knowledge about cyclamen. Our President Brian Mathew VMH is in charge of this initiative, which if successful may be followed by a similar booklet (again in two language versions) on the cyclamen of Greece. In our Photographic Competition (see next page) we will be on the lookout for photographs that might help either of these publications.

## *C. somalense*

The three plants of this species collected by Mats Thulin and his Somali colleague Ahmed Mumin Warfa when they discovered it in 1986 have grown ever since at Botanic Gardens in Sweden. This last winter, one of the three plants rewarded Mats Thulin's long years of pains-taking patience by flowering for the first time. There was

just one flower, held well above the leaf as with *C. persicum* (one of the reasons for describing the new plant as a separate species was that it had been thought that its flowers were held at the same height as the leaves). It was pale pink and relatively dumpy.

Although the ovary started swelling promisingly, the pod-to-be has since aborted.

Mats Thulin has kindly provided a picture of *C. somalense* flowering in the wild, which can now be seen on the Society's web site at www.cyclamen.org

## Cyclamen Society Photographic Competition

The Society invites members and others to submit colour transparencies of cyclamen, for publication in the *Journal*. It does not pay a reproduction fee, but in order to encourage a good flow of photographs it is holding a competition, with a first prize of £200, a second prize of £100, and a third prize of £50. There is no entry fee; all transparencies submitted during the remaining months of this year will automatically be entered for the competition. Those short-listed for the final judging will be printed in the *Journal* during 2001, and the prize-winners will be announced in the June 2001 issue.

The panel of three judges, chaired by Alisdair Aird, will also include Brian Mathew and Peter Moore. They will judge the short-listed finalists on the basis of the photographs' impact and quality on the printed page, taking into account the interest of the subject matter. The main subject must of course be cyclamen, but beyond that choice of subject matter is entirely at the discretion of the entrants: anything from one or more plants in cultivation to cyclamen in the wild, perhaps among companion plants.

Entries must be submitted before 31 December 2000, to Helena Wiesner, Assistant Editor, The Oast House, Willingford Lane, Burwash Weald, Etchingham, E Sussex TN19 7HR.

**Rules**

1. Entries must be colour transparencies, not previously published, of cyclamen, must be submitted before 31 December 2000, and must be offered for reproduction without fee in the Society's *Journal*.

2. Each entry must be accompanied by sufficient information to form the basis of a descriptive caption to be printed alongside the photograph in the *Journal*.

3. No individual may win more than one prize in this competition, though there is no limit to the number of entries that can be submitted.

4. Judging will take place before the end of May 2001. The judges' decision will be final. They reserve the right to withhold any or all of the prizes if they judge the quality of the entries to be insufficient, such right not to be exercised unreasonably.

5. The Society and its officers will return all entries to their owners when judging is complete, but cannot be held responsible for any loss or damage.

6. Entrants do not need to be members of the Cyclamen Society. The judges, and members of their families, are not eligible for the competition.



# A miscellany

## Crete in February

Melvyn Jope reports some cyclamen highlights of a visit to western Crete, 20-27 February 2000. Perhaps most interesting was the discovery of thousands of *C. hederifolium*, including 20 or 30 plants still in flower and even in bud, a few kilometres south of Topolia, among a mass of flowering *C. creticum*. The plants seemed very different from and horticulturally more attractive than the better-known very glossy-leaved (plainish-green) *C. hederifolium* var. *confusum* growing at Topolia. This is of course very late for *C. hederifolium* to flower, though Melvyn comments that this last winter which has been very wet and cold may have kept them going a little longer than usual. Other notes: *C. creticum* regenerating well under the oak trees at Ag. Stephanos; good leaves still on *C. graecum*, with well matured seed pods, on the Rhodopou peninsula; *C. hederifolium* var. *confusum* regenerating in countless thousands at Topolia, and at Polyrinnia, where armed with the relevant CITES documents Melvyn collected three plants for the Society's chromosome research; *C. creticum* and *C. graecum* leaves showing up on Omalos where trees or rocks gave a break in the snow cover (Melvyn comments that plants from up here must be pretty hardy). Melvyn was relieved to find that despite hotel development at Platanias *C. graecum* is still abundant there, growing in porous limestone; at this site the plants seem to be a mix of the types which have been called ssp. *graecum* and ssp. *mindleri*. Generally, he found that the amount of flower on *C. creticum* depended on altitude – the lower, the more flower, though the south side of the island seemed warmer and therefore perhaps earlier. He saw some exceptionally good green-margined silver leaf forms among thousands of *C. creticum* at Faragi Therrisou.

## More on *C. colchicum*

Paul Hendrikx has forwarded to us a note from a correspondent from the Botanical Garden in Georgia: "*C. colchicum* flowers from July till September, with dark pinkish, lilac fragrant flowers. As people gather its flowers for making bunches and its bulbs for medical purposes, the area of its distribution has been considerably reduced and now it is considered to be endangered ... Nowadays we have very little of the plant in nature. For the purpose of its protection it has been cultivated in Tblisi Botanical Garden. That is the only guarantee for its conservation."

Paul describes the tuber of a cultivated plant from the Garden as being almost globose, 6.5 cm (2½ in) in diameter, smooth, hazelnut brown with some green patches (like a potato exposed to the sun), rooting all over the sides and with three floral trunks of 4, 5 and 6 cm.

## 1999 Seed Distribution – not *C. libanoticum*

Last year the Distribution included seed labelled as wild-collected *C. libanoticum*. Unfortunately this has since been found to be *C. persicum*. The seed is said to come from wild plants with a wide range of colours so should still produce some interesting results. Apologies to those who were misled.

## *C. pseudibericum*

Trudy Charlesworth writes from West Yorkshire that she has several groups of *C. pseudibericum* outdoors, in an experiment to find the best places to grow them. Two of these groups, like Michael Tanner's (*Journal*, June 1999, p 9), often stay dormant right the way through a year. One is in a narrow east-facing border between a wooden fence and tarmac; the other is at the top of a slightly sloping south-facing bed backed by a concrete kerb and tarmac drive, and shaded by floribunda roses. Trudy's suspicion is that heat reflected from the fence, kerb and tarmac prompts the tubers into summer dormancy before they have built up sufficient reserves, so that they need the extra year's rest before they can grow and flower again.

## Breaking seed dormancy

This is a subject dear to many members' hearts, none more so than Dr Kathy Immelman who lives in the southern-most tip of Africa. By background, Kathy is a taxonomist, but now runs a small seed testing laboratory. One of her hobbies is growing seeds, any seed, but not least cyclamen. As a recent member of the Society (who heard about it through the Society's web site), she has been pondering if there are clues to breaking dormancy for cyclamen seeds by considering where and how the plants grow naturally. From her study of the *Journal*, she speculates that most cyclamen species need warm dry conditions for seed ripening (late summer?) and will germinate in cool/mild, moist conditions (autumn?) with low light (buried under fallen leaves). If this is correct, she argues, one might expect a one to three month (or 13 to 16 month) dormancy period for European woodland species and, in seed trays, germination at 15-20°C. But a Mediterranean species whose seed matures before high summer begins in earnest might need the pre-conditioning of a period of heat (40°C) and dryness before it will germinate: this "informs" the seed that summer has come and gone. Kathy asks if any members have tried this in practice? And she wonders whether European species respond to pre-chilling (5°C and kept moist)?

On the subject of the Reading method of germinating seeds, Kathy wonders if it's likely to be suited to all "suites" of cyclamen species, as they are adapted to different environments and possibly need rather different germination conditions. Perhaps this is one reason why some report using other methods with good results.

## Of mice and *coum*

In December 1998, we reported the problems Peter Moore had had with mice and *C. repandum* (though they seemed to leave *C. coum* and *C. hederifolium* in peace). This prompted Andrée Connell to tell us that for the first time last year she had had a problem with seed pods on greenhouse plants. They had been ravaged in March, long before the seeds were ripe. At the same time she saw their largest (British Columbian) ants up to an inch long (2 to 2.5 cm) around the pots. She wondered if the mice had been raiding the pods and the ants were then attracted by the opened capsules. Could this tie in with a problem Andrée has had for years with *C. coum* flower buds in the garden? At the stage that the furled buds show colour, they are cleanly nipped off the pedicel and usually found nearby. Close examination reveals that the reproductive parts have been neatly excised from the bud. Mouse traps in the vicinity have yielded a gruesome harvest but the depredations (which can be in the order of 50% to 75% of buds) do seem somewhat reduced. Andrée is eager for any further suggestions as to how she can protect her *C. coum* buds (as is the Assistant Editor of the *Journal* who experiences the same problem with *C. coum* in her polytunnels in East Sussex).



## Seed under vermiculite

Norman Dart confirms the advantages of sowing under a 2.5 cm (1 in) layer of vermiculite (*Journal*, Dec 1997, p 40). Sowing *C. coum* 'Tilebarn Elizabeth', 'Crimson' and 'Broadleigh Silver' this way, not only did he get 100% germination, but the robust little leaves on 1 cm (3/8 in) stems above the vermiculite cannot be compared with what he used to get using sealed containers.

## Some aspects of "Cultivar Names"

*Graham Simpson writes:* In *The Garden* for September 1998 Kit Grey-Wilson mentions the topic of cultivar names which, for cyclamen, have recently appeared in great quantity; and they are probably here to stay. Cultivar names do, however, need to be applied responsibly and with great care. There are many forms of cyclamen with quite distinctive characteristics that are seemingly deserving of a cultivar name. The problem is that in many cases they simply do not come true (or even reasonably true) from seed.

There is another aspect to this topic. In the autumn of 1994 I ordered, from a Bulb List, some tubers of what was advertised as "A new spring-flowering cyclamen called 'Purple Beauty'". The accompanying small colour photograph showed a cyclamen (of indeterminate species) with flowers of a vivid purple colour. When the five tubers I ordered arrived in November 1994, they looked vaguely familiar. No growth appeared in spring of 1995; in August they revealed themselves to be no more than an undistinguished form of *C. hederifolium*. My modest complaint produced the reply that regrettably no replacements were available – and the plant did *not* appear in subsequent lists.

There are two other aspects of cultivar names that are potentially confusing. First, language. There is a form of *C. hederifolium* raised in Germany, which has been named 'Rosenteppich'. I have on one occasion seen it offered as 'Pink Carpet' – a literal translation, but confusing to those who are not multi-lingual. This problem, to a greater degree, already exists in relation to other genera.

Secondly, there are still some of us who thought that cultivar names were intended for plants arising, either accidentally or deliberately, in cultivation, and that distinctive forms found in the wild would be allocated Latin epithets. Apparently, not so. For instance, there is a highly desirable plant that appears to be named *C. coum* f. *albissimum* 'Golan Heights'. Has anyone tried to write this name (with a potentially blunt pencil) on the top half of a five-inch label?

## Tough nuts

Don Hambleton writes from Somerset that his 40 and more years of growing cyclamen leave him amazed at the wide range of conditions in which they will thrive. For instance, on the edge of his property is a low stone and flint wall with a 25 cm (10 in) width of cobble stones for drainage on its north side, to a depth of some 40 cm (15 in). A few years ago he simply scattered *C. hederifolium* seed on these stones, and though there is little or no soil some 20 or more plants now grow there.

His house drive has 10 cm (4 in) of scalpings laid over a heavy clay subsoil and topped by 2 or 3 cm (1 in) of 10 mm aggregate. He has planted *C. coum*, *C. hederifolium*, *C. repandum* and *C. pseudibericum* straight into this, near the house wall; all grow well, and produce seedlings.

It would be interesting to hear from other members who have cyclamen growing in similarly inhospitable spots – the more unlikely, the better.

## Winter-flowering *C. repandum vividum*

G W Dunham writes that Society seed of *C. repandum* ssp. *peloponnesiacum* forma *vividum* carrying the number H93151 and sown in 1994 produced plants which in 1999 flowered for the first time, coming into flower before Christmas and flowering through into February. He confirms that the plants are indeed *C. repandum vividum*, although for him other forms of *C. repandum* were only just starting to come into leaf in February. He wonders (and so do we) whether other members have also found plants deriving from this source particularly early. The original CSE plant carrying this collection number was found in a very protected site close to sea level.

## Vine weevil

Don Hambleton writes that he dislikes using chemical pest controls, so has to resort to other means for fighting vine weevils. At the first sign of those tell-tale notches in the edges of the leaves of his greenhouse cyclamen, he goes on night patrol, with a torch. The weevils, about 6 mm (1/4 in) long, are easily seen, usually on top of the leaves but sometimes clinging underneath, or on the side of the pot. As they are slow-moving they are easily dispatched between finger and thumb, though their carapaces are quite hard. As he uses saucers on a gravel tray, he sometimes finds the weevils trapped there even in daylight. By dealing promptly with the adults, Don gets very little later trouble from the grubs; but he is mystified at how such slow-moving nocturnal creatures get into the closed greenhouse at all.

## Yet more odd flowers

In recent issues of the *Journal*, we've reported various oddities which members have grown – and yet more photographs have flooded in. Our Treasurer, Hilary Temple (who had several "odd" entries in the June 1999 issue) sent a picture of a very nice *C. repandum* – pity about the leaf emerging from a drainage hole in the bottom of the pot.

Philip Godfrey responded to Hilary's report of cyclamen that changed colour – he noticed some time ago that a flourishing patch of his cyclamen growing for 25 years in unimproved soil on magnesian limestone near Wetherby in Yorkshire began losing their deep pink flowers, becoming paler each year. He puts this down to starvation of elements needed by cyclamen (pink plants given to a friend produced more violet flowers when replanted) and asks if members agree.

Linda Pickering sent us pictures of four "mutant" flowers on her *C. coum* (a seedling from the Nymans Group), each of which had four tiny leaves between the sepals and the petals, each patterned in the same way as the normal adult leaves. Two of these flowers developed seed pods and Linda has sown these – it will be very interesting to see what emerges.

Brian Stalley, from Plymouth, reports another *coum* oddity, this time on *C. coum* 'Maurice Dryden'. In this case, the flower looks rather like a narcissus without the trumpet, instead of the expected semi-propeller shape. The petals are white with a dark purple centre where the narcissus trumpet would be.

And finally, Clive Watt from Surrey reports on a plant – yet again *C. coum* – which has had flowers with unusual numbers of petals in both 1998 and 1999. In 1998, the flowers had seven petals, and a botanist at the RHS, Wisley, suggested it might have been caused by a change of temperature at a critical time, or to pest damage, or to a random mutation when the flower was at an early stage of development. But in 1999, the flowers were still "odd" – this time they had six petals. So far, no seed has set on this plant.



## Cyclamen and allergies

Tom Ogren, who has just written *Allergy-Free Gardening* (Ten Speed Press), tells us that cyclamen appear to have quite a good record on allergies. During his 14 years of research into the connections between urban landscape plantings and allergy, Tom has found that modern city gardening's emphasis on "litter-free" landscapes has favoured male clones of other plants because they shed no spent seed, old flowers, seed pods, or other "litter". What these male plants do produce though, is pollen, and plenty of it. The urban pollen load of today is at an all-time high, and along with it has come a huge increase in allergies and asthma.

As Chris Clennett's work (*Journal*, June 1999, p 20) has shown that cyclamen pollen grains are as small as those of the wind-pollinated plants which are often associated with allergies, it's perhaps surprising that cyclamen pollen is not an allergy culprit. So we'd be very interested to hear from any members who believe that they have had any sort of allergic reaction to cyclamen, or to their pollen.

## Potting compost

An interesting recent discussion centred on potting composts, on the Society's new Internet discussion list Cyclamen-L (for more information, please visit http://www.onelist.com/community/Cyclamen-L). John Lonsdale, now gardening in Pennsylvania, reported that he was now getting very good results with a proprietary compost called BioComp. He uses the fairly coarse grade BC5. Apparently it is made from composted bark and peanut hulls inoculated with a harmless *Trichoderma* fungus that supposedly prevents pathogenic fungi from getting a foothold. Other members confirmed the quality of BioComp, so North American members might like its address: [redacted]

Roy Herold in Massachusetts who also uses BioComp adds perlite if the compost is likely to stay in the pot for several years (just as he would with a peat-based compost), to counteract the risk of the compost compacting and aeration being reduced. Another recommendation from Roy is that, for the added grit which cyclamen seem to like in composts, the best value is granite grit for chickens. He suggests a brand called Grani-Grit. It comes in 50 lb (23 kg) bags for around $4. There are four sizes: starter, grower, developer, and turkey (ranging from small to large). He finds the small starter and grower sizes best for cyclamen and alpines. Roy also recommended another useful chicken additive for cyclamen composts – crushed oyster shells.

## Hardier *C. persicum* cultivars

Peter Revell (Hertfordshire) suggests the Miracle Series for a florist's cultivar cyclamen that will stand at least some winter cold outdoors. He bought a terracotta pan containing nine plants in various shades of white, pale pink and deep pink in a local garden centre three years ago. The deep pink plants (not the others) are highly fragrant. They were described as "half hardy" and have done quite well out of doors. Four of the original still survive. In the coldest spell of this last winter they were protected by an overhead sheet of 50mm expanded polystyrene, but temperatures under this still fell to -3°C (27°F). Another ruby-red cultivar he bought as 'Dresden half-hardy' has now survived six winters for him, planted 15 cm (6 in) from the base of a south-facing wall and staying in bloom for at least eight weeks. Can other readers cast any light on that plant's identity or origin?

# Seed Distribution

Whether or not you regard this as the first year of the new millennium, the year 2000 has a magical sound to it, so let us try to make this year's distribution the most successful to date. If you have never donated seed before, please try to do so this year.

Large quantities of common *C. hederifolium* are not required as there is little call for this, although interesting forms are always welcome. Seeds of all other varieties are required, especially the rarer ones. A particular plea goes to the owners of prize-winning plants to include seeds from their special plants if possible.

Seed is best collected as soon as it is ripe. Remove the outer capsule and if the seed is sticky leave it exposed to the air for a couple of days. Place in a suitable packet. Label with the species name and varietal epithet and add any special information. With *C. persicum* state clearly whether seed is from the species (list numbers 67-71) or from pot cultivars (list numbers 98 and 99). If sending wild-collected seed, please state location and date of collection.

Send your donation to the Seed Distribution Manager as soon as possible.

In addition to seed donated by members there should be some CSE seed available. This seed comes from plants collected during the Cyclamen Society Expeditions. It will be distributed under collection numbers on a pot-luck basis, although no members should receive seeds from a plant which they have had before. Seed envelopes will contain 10 seeds from one named plant. Subject to availability, a packet will consist of one, two or three such envelopes.

Your Application Form is enclosed with this *Journal*. Only applications on this form will be accepted. Please ensure that all sections of the firm are completed according to the instructions given. In particular, all applicants are requested to list the **code numbers** of the packets required. Those with vague requests take much longer to process so any received will be left till last.

Applications are not acknowledged. Seed should be ready for distribution in mid-September. The task takes about a month, so please do not enquire about missing seeds before the end of October.

APPLICATIONS WILL NOT BE ACCEPTED AFTER 31 OCTOBER 2000.

Donated seed and applications for seed should be sent to:

Patricia Short

**CSE SEED LIST**

| Code | Name | Code | Name |
|---|---|---|---|
| A | *cilicium* | G | *repandum peloponnesiacum vividum* |
| B | *creticum* | H | *repandum peloponnesiacum* x *repandum peloponnesiacum vividum* |
| C | *graecum* | | |
| D | *hederifolium* | I | *repandum rhodense* |
| E | *persicum* | J | *trochopteranthum* |
| F | *repandum peloponnesiacum* | | |



**GENERAL SEED LIST (packets will be numbered only, so keep this list)**

| Code | Name | Code | Name |
|---|---|---|---|
| 1 | *africanum* | 55 | *hederifolium* 'Silver Cloud' |
| 3 | *balearicum* | 56 | *hederifolium* 'White Cloud' |
| 4 | *cilicium* | 57 | *intaminatum* plain leaf |
| 5 | *cilicium album* | 58 | *intaminatum* patterned leaf |
| 6 | *cilicium* 'Bowles Variety' – white fl, red nose | 59 | *intaminatum* mixed leaves |
| | | 60 | *intaminatum* pale pink fl |
| 7 | *colchicum* | 61 | *libanoticum* |
| 8 | *coum*, magenta fl | 62 | *mirabile* |
| 9 | *coum*, pink fl | 63 | *mirabile* 'Tilebarn Anne' |
| 10 | *coum*, white fl | 64 | *mirabile* 'Tilebarn Jan' |
| 11 | *coum*, mixed | 65 | *mirabile* 'Tilebarn Nicholas' |
| 12 | *coum* 2nd gen CSE | 66 | *parviflorum* |
| 13 | *coum albissimum* 'Golan Heights' | 67 | *persicum*, pink fl |
| 14 | *coum* ex S3 N88020B – white fl, nose sometimes very pale pink | 68 | *persicum*, white fl |
| | | 69 | *persicum*, 2nd gen CSE |
| 15 | *coum caucasicum* | 70 | *persicum* pure white, no red nose |
| 16 | *coum elegans* | 71 | *persicum* 'Tilebarn Karpathos' |
| 17 | *coum* 'Kuznetzovii' | 72 | *pseudibericum* |
| 18 | *coum* scented | 73 | *pseudibericum roseum* ex/ACW 664 |
| 19 | *coum* 'Nymans' | 74 | *purpurascens* |
| 20 | *coum* ex EKB 371 | 75 | *purpurascens album* |
| 21 | *coum* pewter/silver leaf | 76 | *purpurascens* 'Fatrense' |
| 22 | *coum* 'Blush' | 77 | *purpurascens* silver leaf |
| 23 | *coum* ex BSBE form 1 | 78 | *repandum* |
| 24 | *coum* ex BSBE form 2 | 79 | *repandum album* |
| 25 | *coum* 'Maurice Dryden' | 80 | *repandum peloponnesiacum* |
| 26 | *coum* 'Tilebarn Elizabeth' | 81 | *repandum peloponnesiacum* 2nd gen CSE |
| 27 | *coum* 'Tilebarn Graham' | | |
| 29 | *creticum* | 82 | *repandum peloponnesiacum vividum* |
| 30 | *cyprium* | 83 | *repandum peloponnesiacum vividum* 2nd gen CSE |
| 31 | *cyprium* 'ES' | | |
| 32 | *graecum* | 84 | *repandum rhodense* |
| 33 | *graecum album* | 85 | *repandum rhodense* 2nd gen CSE |
| 34 | *graecum* 2nd gen CSE | 86 | *rohlfsianum* |
| 35 | *graecum* silver leaf | 87 | *trochopteranthum* |
| 36 | *graecum* 'Glyfada' | 88 | *trochopteranthum*, white fl |
| 37 | *graecum* from Angistri (see next page) | 89 | *coum* x *trochopteranthum* (x *drydeniae*) |
| 39 | *hederifolium*, pink fl | | |
| 40 | *hederifolium*, white fl | 90 | *africanum* x *hederifolium* (x *hildebrandii*) |
| 41 | *hederifolium* mixed | | |
| 42 | *hederifolium* 2nd gen CSE | 91 | *creticum* x *repandum* (x *meiklei*) |
| 43 | *hederifolium confusum* | 92 | *balearicum* x *repandum* (x *saundersiae*) |
| 44 | *hederifolium* scented | | |
| 45 | *hederifolium* 'Artemis' | 93 | *libanoticum* x *pseudibericum* (x *schwarzii*), pink fl |
| 46 | *hederifolium* 'Bowles Apollo' | | |
| 47 | *hederifolium* 'Ellen Corker' | 94 | *libanoticum* x *pseudibericum* (x *schwarzii*), white fl |
| 48 | *hederifolium* 'Perlenteppich' | | |
| 49 | *hederifolium* 'Rosenteppich' | 95 | *libanoticum* x *cyprium* (x *wellensiekii*) |
| 50 | *hederifolium* 'Ruby Glow' | | |
| 51 | *hederifolium* 'Serenity' syn 'Daley Thompson' | 96 | *graecum* x *hederifolium* (x *whiteiae*) |
| 52 | *hederifolium* 'Stargazer' | 97 | *balearicum* x *creticum* |
| 53 | *hederifolium* pewter/silver leaf | 98 | pot cultivars, large fl |
| 54 | *hederifolium* 'Nettleton Silver' | 99 | pot cultivars, small fl |

# The Greek island of Angistri

*John Reeve*

Occasionally, one can have the best of both worlds – a holiday resort with peace and quiet, combined with the joy of looking at cyclamen. The place that achieves this idyll is the Greek island of Angistri, a lovely pine-covered island of 1,000 souls and six churches. South of Piraeus, it involves a nearly three-hour ferry ride via Aghia Marina on Aegina, but is well worth the journey.

Before my visit during the last week in September and first in October 1999, they had had a considerable amount of rain, which probably helped to bring the countless *C. graecum* that cover the island into flower, in some places creating vast areas of pink. One area around Aghia Barbara was particularly wonderful in its array of plants. The area had been cleared at some time for a vineyard and the stones piled up to form walls all over the landscape. These were like ribbons of pink with the plants clearly growing well in this undisturbed environment. They covered the spectrum of pink from the palest to deep cerise. Most had long, sinuous petals somewhat reminiscent of *C. repandum*. Other plants were growing in the open glades in the pine woods.

The island is criss-crossed by a large number of tracks and on one such track above Metoxi, at its highest point (at around 187m, 600ft) is the most wonderful array of plants any cyclamen enthusiast could want to see. Imagine an English bluebell wood, but in pink and that is what it looked like. Some of the cyclamen were growing among rocks protruding through the pine-needle litter, creating a completely natural rock garden. One large rock covered in leaf-mould had six plants each with a quite distinct leaf pattern (though none was in flower) – a rock garden in miniature. Those with a particular interest in the varied leaves of *C. graecum*, would see some wonderful patterns here (a spring 2000 visit secured some seed for the Seed Distribution, see item 37).

Plants in the more sheltered, shady areas of the woods seemed, by and large, to have more rounded petals than those in the open. I found lovely plants just yards from the sea at Milos. One particularly large plant was growing on its own in what was once a builder's yard, near Scala, the main town. It seemed quite happy among the sand, gravel, spilt cement and other building material. It would certainly have filled a 25cm (10in) pan comfortably and must have had a couple of hundred blooms. There was a distinct perfume with so many plants so I presume that most of them were scented. To my delight and excitement, I found two pure *album* plants, one growing in a walled garden area near the ferry port in Scala, the other above Milos.

The island is also criss-crossed by tracks which can take vehicles as they have a fire-patrol vehicle patrolling the island. With so many pines, it would be quite a tinder-box. I didn't see any fire damage which suggests that the patrols are effective. The island can be walked very easily – from Scala to Limenones took me two hours, so I'd guess four hours would be sufficient to walk around the whole island. This is a very Greek island, no English papers, great food (and drink) and very quiet. A pair of walking shoes, a bottle of water and the island is yours. My only regret is that I didn't take my camera this time; my memory will have to do to record some wonderful sights.



# *Cyclamen trochopteranthum* survey in Turkey, spring 1997-99

*Brian Mathew*

As has been reported in the *Journal* for June 1998, this survey came about through a proposal from the RHS Joint Rock Garden Plant Committee, that there might be some quantifiable (and therefore taxonomic) characteristics to differentiate between high and low altitude plants of *C. trochopteranthum*. The only way to assess this would be through a programme of field work, working through the various populations of this species that is comparatively poorly known in the wild.

Although, compared with some species, *C. trochopteranthum* is one of the more restricted, the limits of its known area of distribution still amount to some 180 x 50 = 9,000 square miles. In view of this it was clear at the start that at least three seasons would be needed, to cover the area reasonably well and to take into account the difference in flowering time between low- and high-altitude plants. In this latter respect, the season ranges from February to April. The team chosen consisted of Vic Aspland, Brian Mathew and Trevor Wiltshire, linking up during the three years with various members of DHKD (Turkish Society for the Protection of Nature) and Istanbul University Faculty of Pharmacy. They were: Prof Neriman Özhatay and Başak Koçak (University), Andrew Byfield and Sema Atay (DHKD).

The first year – 1997 – was somewhat of a fact-finding mission, locating populations at varying altitudes, getting a "feel" for the choice of habitat of the species, and, in the case of populations seen out of flower, estimating when would be a suitable time to return. The period chosen was mid to late April, mainly with a view to seeing medium to high populations in flower, but in the event a late snowfall reburied the plants (some of them already finished flowering), so rather more low-altitude work was carried out than had been anticipated. This did in fact prove very useful in the third visit (1999) when several of these now accurately located low-altitude sites were revisited when in flower. In spite of the inclement weather in 1997 the team travelled widely through the known area and covered quite a range of altitudes, so much useful information was gathered for future use, including some higher altitude surveys of flowering colonies. The 1997 season was written up in some detail in Vol 22 No 1, pages 16-20 and will therefore not be dealt with again here.

## 1998 season

In the second year (1998) it was decided to go a month earlier (24 March-6 April) with the intention of seeing some of the medium-high populations that in 1997 had already finished flowering by the time of the visit. Two main areas were visited: the mountains to the north-west and west of Antalya, based in the small market town of Elmalı, and to the north-east of Antalya in the mountains around Lake Eğirdir. The reasons for the choice of the former region were twofold: first it appears, from our previous season's work and from existing records (or rather lack of them), that there is a gap in distribution of the species to the north and north-west of Antalya; secondly, there were known to be good populations south of Elmalı. The region around Eğirdir was selected so that we could try to ascertain just how far to the east

and north-east the species is distributed.

Starting the trip in Antalya, we headed out in a hired minibus (4 x 4 hire vehicles are small and of little use for our purposes – rather more of the "posing" variety for tourists) to the north-west, then turning in an arc southwards towards Elmalı. It is very apparent that the high land here is closely allied to the inland plateau area of Turkey – the Irano-Turanian floristic region – a harsh, cold climate with considerable snowfall in winter and long dry summers; there are few trees and the vegetation is of the steppe type with spiny cushion plants. This is not cyclamen country, hence the reason for the apparent (and now thought to be a reality) gap. A look at the rainfall maps for the region confirm that this is drier than the area to the south of Elmalı. Elmalı itself is situated on a rich plain that has been turned over to agriculture, so little of the original vegetation remains around the town. South of Elmalı a change of vegetation type soon becomes apparent: within a few km bushes and trees (*Quercus, Juniperus, Prunus*) appear, and it is clear that one is moving into a higher rainfall area. The first population of *C. trochopteranthum* was found just 17 km south of the town at 1,100 m (3,600 ft), growing among bushes and limestone rocks in humus-rich terra rossa. Several white-flowered plants were seen here among the many "standard" ones, falling into the red-purple group of colours in the RHS Chart (mostly Group 74B, C or D). One plant had flowers that were more "coum-like" with the petals reflexed rather than spreading. Surveying another population a little further on, on the Avlanbeli pass, served to remind us just how inclement the weather can be at the end of March, at only 1,100 m – there had been snow overnight and torrential rain with bitingly cold winds followed on, inevitably leading to thoughts of "what on earth are we doing here"!

In view of the atrocious weather we decided to continue briefly southwards towards the Mediterranean coast at Finike to see how far *C. trochopteranthum* continued in that direction. In fact it was not seen again on that route; instead, at altitudes below 500 m (1,640 ft), *C. graecum* appeared just about 50 km south of Elmalı, the populations including some very attractive silver-leaved plants. As one would expect the whole feel of the flora had changed at this point, with typical Mediterranean plants such as *Euphorbia characias, Colutea, Poterium, Pinus brutia* and *Daphne gnidioides*. Other routes to the south and south-west of Elmalı yielded good populations of *C. trochopteranthum*, although at altitudes above 1,000 m (3,280 ft) snow was a problem. There were some good survey sites and several living plants were collected, either as representatives of the population for comparison under standard conditions in cultivation with low-altitude, large-leaved plants, or for some other purpose (such as flower shape, high altitude for hardiness, etc). Interesting variants seen in this region were: many plants with truncate leaves (ie as if chopped off straight across the top, not rounded or pointed), flowers that were flat (the petals spreading out horizontally) and whirlygig-shaped, large-flowered with wide substantial petals, flowers with fimbriate (fringed) petals, interesting leaf patterns (eg silver-flecked), etc. A poignant note appears on one set of field notes, at a site west of Elmalı, situated at 1,620 m (5,300 ft): "sorry about the writing but hands are frozen". We had just been forced to turn back as the road was closed by snow. Turkey may be a long way south of England and a lovely place for a summer holiday in the sun, but even at only 1,000 m in winter it can be like the Arctic.

Many of the higher populations in this region grow in open conifer woods of *Cedrus, Juniperus* and *Pinus*, but slightly lower they are often in thorny scrub of *Quercus coccifera, Crataegus* and *Prunus*. At the final site visited in this general area, at 1,400 m (4,600 ft) on the Kuraova pass, it was of the former type of habitat, and



bitterly cold to the extent that the tubers were actually frozen into the soil. Travelling at this point became interesting – "descending the pass in a controlled slide" is how the driver saw it but the passengers viewed it more as a white-knuckle ride!

All this suggests that *C. trochopteranthum* may be a lot hardier than it has been given credit for in the past – or at least some of these higher forms may prove to be. Descending southwards from the pass towards the coast, *C. trochopteranthum* again petered out and we were soon back into *C. graecum* territory with Mediterranean vegetation – *Arbutus, Iris unguicularis, Ophrys*, etc. One particular site for *C. graecum* was very odd, in a fine silty soil derived from sandstone and not at all like its more familiar limestone habitat. *Anemone coronaria, Romulea tempskyana, Gynandriris sisyrinchium* and *Muscari muscarimi* (*moschatum*) provided passing interest on the way back to Antalya for the second leg of the trip. The last of these caused great excitement for our Turkish hosts Neriman Özhatay and Başak Koçak who are involved in a study of the genus *Muscari* and this species in particular.

Heading out from Antalya, this time with Sema Atay of DHKD, to the east (it was now 1 April), we made an excursion inland towards Beşkonak in an effort to locate the eastern-most edge of the distribution of *C. trochopteranthum* in this region – after all, almost due north from here, it is known on the eastern side of Lake Eğirdir (a population seen in 1997). However, the vegetation did not look quite right, with many Mediterranean plants such as *Arbutus, Myrtus, Cistus*, etc, and the cyclamen present was undoubtedly *C. cilicium*, here at one of its western-most localities. From our observations at these eastern fringes of the distribution of *C. trochopteranthum* it appears that the Dedegöl Dagları, a range running approximately north-south (roughly to the south of Lake Beyşehir), forms the eastern-most boundary of *C. trochopteranthum*: we saw only *C. cilicium* to the east of this, and *C. trochopteranthum* (and *C. mirabile*) to the west. One of the non-cyclamen bonuses in the Beşkonak area was the rare "reticulata" iris, *I. pamphylica* – a new record that is farther to the west than its previously known localities and again an excitement for our Turkish host; *Fritillaria elwesii* was also in flower. Heading northwards towards Lake Beyşehir, we saw *C. cilicium* several times, out of flower of course, but with interesting and variable leaf patterns. In wonderful country on the way north there were many bulbous highlights such as mixed and multi-coloured *Crocus biflorus/chrysanthus* populations, *C. antalyensis*, a small green-yellow *Fritillaria* and *Galanthus elwesii*. Revisiting the population of *C. trochopteranthum* that occurs between Lake Eğirdir and Beyşehir was well worthwhile, for this time it was in full flower, and we surveyed several other populations to the south of the lake. However, heading north along the east side of the lake, round the top and down the west side showed that the species does not apparently extend any further in that direction. The terrain here becomes drier, colder and steppe-like with many bulbous plants and spiny cushions, and so looks rather unsuitable for cyclamen. The presence of a Juno *Iris* (probably *I. galatica*) is indicative of having entered the Irano-Turanian floristic region once more.

We made a short foray west from Antalya through the steppe country referred to on page 12 of this article, to look at *C. trochopteranthum* in the more north-westerly parts of its known distribution. After some 100 km of this very unsuitable harsh territory, we found some populations in a rather greener country leading up to the Dirmil pass on the way to Altinyayla, growing in a very spiky mix of *Berberis, Crataegus* and *Quercus coccifera*. However, it did not continue to the pass itself, which is essentially a serpentine ridge noted for several choice plants such as *Fritillaria serpenticola, Muscari mirum* and *Crocus baytopiorum*. We had no time to

extend the search in this direction, although the cyclamen has been recorded farther north-west towards Denizli.

As a final fling we decided to try to get through on the road that leads south-west from Antalya between two mountain ranges (Bey and Tahtalı ranges) to Altinyaka and Kumluca, since Andy Byfield had reported seeing our cyclamen there. In the previous year the road had been impassable. This proved to be an interesting journey for many reasons, not least the fun of off-roading (since there wasn't much of a road in its strict sense for quite a bit of the way) in what was intended to be an "on-road" vehicle. We saw excellent colonies of the cyclamen, and one contained forms with totally unmarked deep green leaves – not beautiful, but interesting to know that they occur. From the "spot" records made along the road, it seemed quite likely that *C. trochopteranthum* occurs throughout the beautiful cedar forest that runs almost continuously along the western flanks of the Tahtali range. Other points of interest here were the yellow *Romulea crocea* and a *Biarum* (not in flower) that has turned out to be the very curious *B. ditschianum*.

## 1999 season

For the final year we chose even earlier dates in an effort to see the really low-altitude populations in flower, at anything between sea level and at most 800 m (2,600 ft). Our Turkish colleagues Sema Atay (DHKD) and Başak Koçak (University) were to join us for the whole trip, again starting out from Antalya (via Istanbul) as we had on previous occasions been made welcome at the University campus guest facilities there. On the first day in Antalya – 24 February – a short foray into the mountains to the west of the city was possible (into the Bey Dağları again) and this proved to be valuable as we located and surveyed what turned out to be one of the best populations recorded during the three years. "Best" in terms of density of plants: in the thickest part of the colony there were about 40 plants per square metre (4 per sq ft), but the whole population was no more than 100 m x 50 m, the surrounding country having been cleared, terraced and ploughed. Although physically isolated from other populations, the plants showed considerable variation in depth of flower colour, some had flowers with exserted styles, and some had coum-shaped flowers while others were of a good flat propeller shape; the leaves too varied quite a lot. However, this was at 850 m (2,800 ft), so was still a little higher than our brief, so the next move was to head south and then westwards around the coast road towards Fethiye and the Marmaris-Datça peninsula where we had recorded low-level populations (but out of flower) in 1997. These were also at the western extremity of the known distribution, so would be of interest from this viewpoint as well. Travelling round the coast road at this early season is always likely to turn up something, and the Turkish contingent of the team was delighted to find *Muscari muscarimi* in flower for the on-going *Muscari* studies at Istanbul University. Other plants of interest along this route were *Iris unguicularis* subsp. *carica*, *Romulea tempskyana*, *Barlia robertiana*, magnificent specimens of *Mandragora* and a multi-coloured display of *Anemone coronaria*. The only population of *C. trochopteranthum* seen in this area was one reported by Erna Frank and Bob and Rannveig Wallis, in a most inauspicious scrubland site on the main road opposite a petrol station. This was an "island" site in a sea of low-altitude Mediterranean "spinies", maintained by a water seepage providing a shady, humid habitat. In fact the plants were very fine with large flowers, mostly in the range of 30 to 36 mm



(around 1¼ in) diameter, and one of them a staggering 44 mm (1¾ in) across. The colour was a fairly uniform bright pink-purple, but the shape varied greatly from "propeller" or "windmill" to "coum-like" and "elegans-like". Several had droopy petals, hanging down below the calyx (not with age or wilted), and this feature was seen in several other colonies further to the west. The leaves were on the whole rather dull in pattern and quite large (up to 59 mm, 2½ in, wide) at this altitude of 520 m (1,700 ft). Out in the more open spots nearby was *C. graecum*.

A short diversion inland from Fethiye into a very unsuitable-looking dry pine forest turned up another population in a small depression where a spring issued out of the rocks, providing a humid microclimate – in fact at this time of year it was so wet that some of the cyclamen leaves were under water. This time we had clambered up through steep woods and had reached 920 m (3,000 ft) – above the upper target level for this trip – and the leaves were mostly smallish: about 12-36 mm wide (½ to nearly 1½ in), although in shadier spots they did exceed this. This should not, however, be taken as a hint that altitude and leaf size are clearly related, as there is undoubtedly much overlap; a statistical assessment of all the facts and figures will come in a later article by Vic Aspland. Although these medium-altitude populations were not the real aim for this season, one cannot just rush past a site that is worthy of a full survey (ie leaf and flower data from a minimum of 50 plants), but the really interesting lowland populations were not far away.

At only 50 m altitude near Marmaris the team was delighted to find that *C. trochopteranthum* was still in flower on a river bank in a moist mild valley with plane trees, oleanders and myrtle – such a different habitat from that of the snowy, frozen passes around Elmalı. As with most other sites the population was not large – it was measured at 50 m long and only 10 m wide – but there were plenty of interesting variations, including the droopy flowers referred to above – they were dubbed "Trevor's Drooping" since the expedition photographer fell upon these with great enthusiasm. The field notes read as follows: "Many of the plants have curiously shaped flowers in which the petals droop down below the level of the calyx, although they were perfectly fresh and certainly not dry at the root; plants have noticeably large leaves at this site." In fact the leaves ranged from 40-90 cm (1½-3½ in) across, but mainly in the range 50-70 cm (2-2¾ in); the flowers were also of good size. A few living plants were collected here to see if the drooping-flower habit remains in cultivation.

Just south of Marmaris another pine-wood colony of cyclamen was of interest in that this time it was clearly not on limestone (probably metamorphic) and the associated plants were *Erica manipuliflora*, an ericoid *Hypericum*, *Muscari macrocarpum* and *Fritillaria forbesii*. Heading out on this long peninsula towards Datça the team revisited a site seen with Andy Byfield in 1997, on a small pass at 350 m (1,150 ft) on serpentine formations. Here, the dominant plants forming the scrub were *Arbutus andrachne*, *Phillyrea latifolia*, *Cistus* spp., *Quercus coccifera*, *Ruscus* and *Euphorbia acanthothamnos*, fairly typical low-altitude vegetation for the region. The variation in leaf (fairly large here) and flower was much the same as seen on several occasions, including droopy and fimbriate petals; an attractive and frequent characteristic at this site was a dark red-purple stain on the leaf stalks that ran out on to veins of the leaf.

Further attempts at locating *C. trochopteranthum* on this peninsula failed and it does appear that this is the most south-westerly point at which it occurs; however, there are many places that would take a long time to reach on foot, so one can never state categorically that this is the case. Out towards the end of the Datça peninsula

there are some magnificent forests of *Arbutus* – both *A. andrachne* and *A. unedo* mixed – forming a dense canopy, and here there were flourishing populations of *C. hederifolium* with very large, fleshy and curiously 3- to 5-lobed leaves; it is a very common species in the region and one that would be interesting to study on an autumn foray – on some future occasion.

Another reason for heading out to the extreme end of this peninsula was to see if we could locate a member of the *C. repandum* group; after all, many plants that grow on Rhodes and Crete have been found here also, but on this occasion nothing was found. At this point we decided that it would be worthwhile continuing westwards from the provincial capital of Muğla towards the Bodrum peninsula to see if *C. trochopteranthum* extended in that direction – or maybe *C. repandum* would be there. This would also provide an opportunity to check a cyclamen record that might or might not refer to "our" species – between Yatağan and Milas. The plant was soon located and, not surprisingly, proved to be *C. mirabile* which has many locations to the north of this. The Bodrum peninsula deserves little comment here since, from the point of view of the botanist, it is overgrazed and is becoming over-developed for the tourist industry – doubtless it is fun for the tourists and creates much-needed jobs and currency; there are colourful hillsides of annuals at this time of year. Westwards, after the *C. mirabile* population, only *C. hederifolium* was seen near Bodrum so the law of diminishing returns was applied and the team headed east once more, back towards known *C. trochopteranthum* territory. A short foray into the hills at 700 m (2,300 ft) north-west of Muğla yielded an unexpected small population of the cyclamen, and several other items of interest and amusement. The highlight for our Turkish hosts was a species of *Muscari* (a form of *M. muscarimi*) that smelled strongly of rotting cabbage on first opening, then developed (when stored in the van for a day or so) a strong and delightful perfume. *Sternbergia fischeriana* was here also, quite far to the north of its usual distribution and at a rather higher altitude, so the trip did make some useful observations as well as the cyclamen studies. Another short excursion to the north-east of Muğla provided some more non-cyclamen interest in the form of *Galanthus gracilis*, beautifully sited in cliff-face crevices, and the little white *Crocus fleischeri* was in flower nearby.

One of the highlights of the 1999 season came about by pure chance. A convenient overnight stopping place was Dalyan, a well known tourist spot in the summer but now peaceful enough. Some young men helping out at the pension turned out to be students from the local agricultural/horticultural college and one of them said he was studying cyclamen and had a collection of them growing at the college. Furthermore, he said that he knew a site nearby where "*C. coum*" grew, that it was still in flower, and that he would take us there. This was all too tempting, so the next day saw a large group trekking across a large flat marshy area towards the spur of mountains that terminate in some cliffs by the sea. Sure enough, at less than 10 m above the sea (the water of the estuary was lapping alongside), there was a flourishing population of cyclamen – not *C. coum* of course, but *C. trochopteranthum*. Although this must be a very hot area in summer, this site was moist and cool in a

The painting of *Cyclamen trochopteranthum* opposite, by Pauline Dean, has been commissioned by Brian Mathew and donated by him to the Society, to be awarded annually for the best plant in the Expedition or progeny classes at one of the Society's shows. The photographs following of the 1999 Expedition were taken by Trevor Wiltshire.

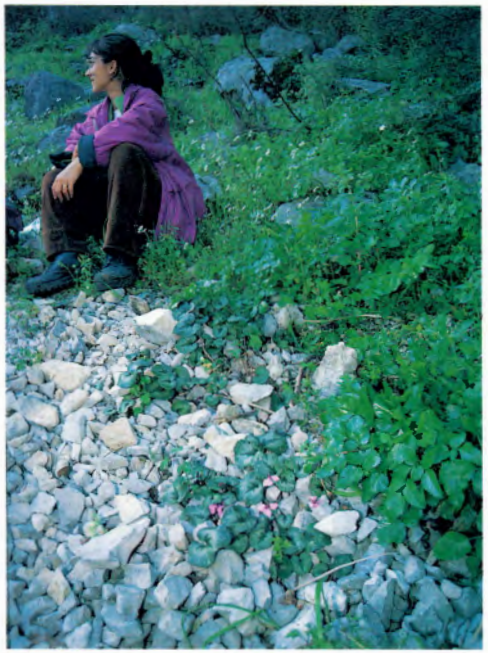
*C. trochopteranthum* less than 10m above sea level, near Dalyan, Turkey; site 99/12T, collected plant 99004

Brian Mathew at site 1, south-west of Antalya, 850m (2,800 ft)

*C. trochopteranthum* at site 99/16T with over 50 flowers (see bottom left picture, opposite)


Collected plant 99010 at site 99/12T (see bottom right, opposite)

Site 99/16T, near Arpacik north of Fethiye, 1,220m



Site 99/12T near sea level near Dalyan, with Başak Koçak

Cocoons of *Thaumetopoea pityocampa*, the processionary caterpillar which devastates Mediterranean pines, being burned on Datça peninsula near Marmaris

*Muscari macrocarpum* on Datça peninsula

*C. trochopteranthum* at site 99/16T, north of Fethiye, 1,220m (4,000 ft)

rock slide at the foot of vertical cliffs. As with other low-level populations seen here in the west, there were very large leaves (106 mm across, over 4 in, was the largest), plants with droopy flowers, some with fimbriate petals, etc. The student's cyclamen collection was duly visited and some hints on cultivation were freely dispensed. This whole episode had been quite an experience and would make a whole story in itself!

This splendid encounter with the lowest possible population would in fact have made a fitting end to the fieldwork, but there were plenty of really excellent sites to come. Just inland from the coast road back to Fethiye, at 100 m (330 ft), there was a very large colony with a density in places of 25 plant per square m (2 or 3 per sq ft); the extent of it was not determined for the plants just went on and on up the very steep slopes into the distance. Then, north of Fethiye, and climbing back into the mountains, there was (at 450 m, 1,500 ft) another "very large and viable population" according to the field notes. Here, there were up to 30 plants/m$^2$ (3 per sq ft), all in full flower and colouring the ground beneath the bushes, some with leaves in the pewter category. Still higher, at 1,050 m (3,450 ft) in open deciduous oak and pine woodland, they occupied a range of habitats from almost fully exposed to deep shade in the boles of the trees. As one would expect, the leaves were on the whole smaller than those lower down but varied greatly according to exposure. A bonus near here was a splendid drift of a white form of *Crocus antalyensis*, normally lilac. The final cyclamen population seen was at 1,200 m (4,000 ft), still north of Fethiye, and in this locality the plants were on a sunny hillside, many of them in much more open situations or under deciduous bushes. "Save the best until last" is not a bad dictum and in this case was borne out. One magnificent specimen had 54 flowers open all at the same time.

Whatever the outcome of the statistical survey – this will be reported on in due course by Vic Aspland who is working on the data – the studies in Turkey have been a most useful exercise and have underlined the field in which the Society can play a most important role: that of surveying and recording. As a result, *C. trochopteranthum* is now one of the better-known species in terms of precise distribution, range of altitude, habitat (including rock and soil type, pH and plant associations), and morphological variation. Also we are now in a position to supply accurate data to conservationists rather than the previous vague guesses as to its status in the wild. In addition, the selected range of living material collected will help us to ascertain whether the variation recorded is primarily genetic or purely environmental. It has been agreed to make further use of these valuable collections in the form of cytological work which will be carried out by staff at Kew. This will be written up in the *Journal* when complete.

**Acknowledgements.** On behalf of the Cyclamen Society, the team wishes to thank the Turkish Embassy in London and the government authorities in Turkey for their understanding and cooperation in this project, particularly with regard to the issuing of Research Visas and CITES documents. We are especially grateful to Prof Neriman Özhatay and Başak Koçak of Istanbul University and Sema Atay and Andy Byfield of the Society for the Protection of Nature (DHKD); their invaluable help and companionship in the field were greatly appreciated. Some financial assistance was provided by the Royal Horticultural Society and the Alpine Garden Society.

# Growing *Cyclamen purpurascens* in the American Midwest

*Gerald R Firak*

After receiving the December 1999 *Journal* I decided I must contribute my input into the culture of *Cyclamen purpurascens* in the Chicago region. Of the three hardy cyclamen, *C. coum, hederifolium* and *purpurascens*, the last is clearly the hardiest and the "best doer" of the lot (I'm still trying to figure out *parviflorum*) in this area of hot summers and cold winters.

My experience with *C. purpurascens* is in direct conflict with much of the literature written on this species. For me, it is not totally evergreen if grown out in the open sun. It seems that as one increases the shade it becomes increasingly evergreen. The plants grown in the open sun and very partial shade begin to lose heir leaves about the first or second week of June, and at this point I clean out the dead leaves, spray with a systemic fungicide and mulch literally with oak leaf mould. This mulch will not only nourish the plants but also provide a seedbed for those seeds which I (and the ants) have allowed to be scattered.

Several weeks later two events occur, the seed capsules begin to open, and seedlings appear from last year's seed. Actually I have had seedlings appear in late May. At this point I begin my annual worry that this part of my cyclamen collection has died, but not so. Those in continuous shade have kept most of their leaves and a few plants may even send up flowers. All the seed capsules have opened by the fourth of July, letting me gather them for seed exchanges or the aforementioned seed scattering.

About the second week of August the dormant plants begin to send out new leaves, and by late August they are back in full leaf, with flowers starting (the plants in the full shade have moved along much earlier). One mystery with *C. purpurascens* is that one plant may be choked with perhaps 20-30 flowers, while another plant a foot away although richly foliated rarely flowers. All this time more volunteer seedlings are germinating, giving the slugs something to do. In the first week of September I begin to pot up those volunteers starting with the May-June group. Using 9 cm pots (3½ in) and a potting mixture that contains about 50% composted pine bark, 25% vermiculite, 20% peat moss and 5% perlite I tease out the seedlings, insert them into the mix, and water well. I'm very keen on the use of a mix with a high percentage of pine bark. These pots are then placed under fluorescent lights in my basement and given 14 hours of light a day. The plants which had emerged in May/June grow particularly rapidly, and a few will be blooming by Christmas. I bottom water these pots, which is rather labour-intensive as I don't have a flood and drain system, being just a home gardener.

By the time April arrives the plants are taking up so much water and demand such constant attention that I can't wait to get them into the ground. Yes, I have grown a few plants by just leaving them in place, but three years is too long to wait for results for a person in my dotage. I continue to tease out seedlings all the way into October, but these will not begin to bloom until much later following the 9-10 month rule. There are of course runts in every seed batch and I have relegated these plants to the more obscure areas in my garden, but in time they can surprise one by exceeding the first choice plants.

What if one wants to germinate a particular form and keep it separate and labelled? Just take a 15 cm (6 in) plastic pot, put in the potting mix well short of the top, then lay down a bed of leaf mould 2.5 cm (1 in) thick, position 50 seeds equidistant on the bed, then cover the seeds with the same depth of leaf mould, and cover it all with coarse poultry grit. The grit stops water spatter and most frost heaving. I then find a shady spot in my garden, plunge the pot into the ground so that the rim is slightly above ground level, and finally pin down some cut-to-size poultry fencing to keep out squirrels. This I do in the autumn, and I keep them in the ground all winter; some seeds emerge in October, and you could tease them out carefully or just wait until next summer and treat them the same as you would the May/June volunteer seedlings. One could also place evergreen boughs over the pots to produce shade and keep them frozen in for the winter.

In conclusion, I have found the following:

1. The 'Fatra' form performs no better than the standard patterned-leafed plant.
2. If you're going to move a mature plant do it as a potted plant and always purchase a potted plant.
3. It's not necessary to plant *C. purpurascens* five or more inches deep; keep the potting hole at the same level as the plant in the pot (you may plant it in a slight depression, but if so let nature slowly fill in that depression). I have killed many three-year-old volunteer 'Fatra' tubers by planting them more deeply than they had been growing before.
4. Do not plant tubers in a heavy sticky soil. They like highly organically improved soil.
5. *C. purpurascens* is very hardy, surviving -29°C (-21°F) with very little snow cover in 1994.
6. In this non-maritime climate, if grown in the open sun the plant will defoliate and have a downtime of about two and a half months, so don't dig them up and say all is lost.
7. I've tried GA3 but I am not convinced of any whirlwind results.
8. Moving *C. purpurascens* seedlings is almost foolproof – moving older unpotted tubers is a gamble, I've done it but I have failed too many times.



# *Cyclamen purpurascens* in the Slovak Republic

*Barbara Boize*

I spent August/September 1998 in the Slovak Republic, based in Zilina where my sister was working at the time. I was able to visit six different areas to look for *Cyclamen purpurascens*. I found it growing in two areas:

- the Velká Fatra south-east of Martin
- Demänovská dolina, in the Low Tatras south of Liptovský Mikoláš

Despite searching, I found no cyclamen in the other four areas: the wooded hills in the immediate vicinity of Zilina (not far from the borders with the Czech Republic and Poland; mainly Norway spruce and Scots pine with a sparse herb layer and occasional shrubs); Stary Smokovecs in the High Tatras (conifers again, in more rugged scenery); the Zlatá Idka/Chata Erika area west of Košice (dense beech woods, conifers above); and Trencianska Teplá north of Trencin (between Bratislava

and Zilina; mixed deciduous/coniferous woods on a steep slope with an underlying rock which looked to me like sandstone).

I was limited in the areas I could visit because of my sister's work and other commitments, my total lack of knowledge of the Slovak language (fortunately my sister had learnt enough to get around, buy food, etc) and problems with public transport (we had no car). Trains and buses can take one almost anywhere and are especially frequent in the (far too) early morning and afternoon when most Slovaks are going to and from work. Although train timetables are relatively easy to follow, there was not always a train at a convenient time for us, and we often had a long wait for a connection. Buses were more of a problem as timetables were difficult to understand. Often we just turned up at the bus station and my sister would ask the drivers of likely-looking buses where they were going until we found the right bus. Because of this I was unable to go anywhere by bus myself.

To increase our chances of success, my sister suggested asking at the Turcinaské Museum in Martin, a town between the Mala Fatra and Velká Fatra and not far from Zilina. The museum has good displays of the local flora and fauna, including a photograph labelled "Cyclamen fatrense". A most helpful man told us that cyclamen were found only in three valleys in the Velká Fatra – Belianska dolina, Necpalská dolina and Lubochnianska dolina – and we would need to search around for the plants.

## Velká Fatra

Map 121 in the excellent "Turistická Mapa" series uses a scale of 1:50,000 and has all the main footpaths marked in different colours. As the Lubochnianska dolina was the easiest to get to we visited there on 22 August. From the train station at Lubochna (about 17 km east of Martin) we followed the red path south as far as its junction with the blue path at the northern end of the valley (approximate height 450 m, 1,480 ft). We then took the blue path which followed the valley for about 2.5 km before it turned west to cross the ridge at a height of 760 m (2,500 ft) at the Lubochnianske sedlo (saddle) before descending to the town of Krpelany (410 m, 1,345 ft) from where we got the train back to Zilina. Most of the path was through grassy damp scrub with abundant wild flowers, many of which were unfamiliar to us both. The most spectacular flower was the stemless carline thistle (*Carlina acaulis*), huge and rather alien-looking, but the most exciting (for me) was *Colchicum autumnale*. Although the woods in the higher parts of the ridge looked suitable no cyclamen were found.

The other two valleys were accessible only by bus, and it took us some time to find out how to get there. On 31 August we went to Necpaly (9 km south-east of Martin), a traditional Slovak village. We took the blue path which followed the road from the centre of the village south-eastwards up the valley (520 m, 1,700 ft). We passed a car park and sign marking the edge of the Velká Fatra National Park. The road crossed the Necpalský stream at a bridge and about 95 m further on a clear footpath (not marked on the map) went up into the woods on the right-hand side. We had to jump over a small rivulet and negotiate the very steep start to the path, but after that the path was fairly gentle. We stopped to eat our lunch about 130 m along this path, and that was when I saw my first cyclamen.

It now began to rain quite heavily and we were not prepared for bad weather so observations had to be rather brief. Individual cyclamen plants were widely scattered in the woods which consisted of Norway spruce which had been selectively felled over time so that there were gaps in the canopy, though the woods



overall I would consider as shady. The herb layer was dominated by *Asarum europaeum* and wood sorrel (*Oxalis acetosella*) but there were also *Euphorbia amygdaloides*, violets, ferns and some unidentified grass. There were few shrubs, mostly regenerating beech. The underlying rock was limestone with a dryish loamy soil having a pelleted structure and covered by a thin layer of needles and beech litter. Cyclamen were growing on a steep north-facing slope, gradient estimated at 1:3.

This population was very scattered, with an estimated density of 0.1 plants per sq m (one plant per 100 sq ft). I examined six individual plants which all had plain leaves with red undersides. The leaves varied in size from 3 cm wide x 3.5 cm from apex to sinus (about 1¼ in) to 5.5 x 5 cm (about 2 in). Only three plants had flowers and then only one each. Two were a mid-pink colour with a purple mouth, and the other was deep pink with a red mouth. All flowers had a strong sweet scent. One plant had a fruit forming, and the other two no signs of flowers or fruits. No young plants were apparent.

Although I was pleased to have seen wild cyclamen at last I was also very disappointed because so few flowers were visible. I had visualised carpets of them after reading that they were so abundant in some places that they were picked and sold in bunches like violets. I had to search hard to find plants and then found mostly leaves.

In the pouring rain I continued up the blue path until the valley widened somewhat near a white house with an outbuilding behind. Shortly before the house a rocky footpath on the right turned up into the woods by a large concrete pillar labelled YZ P 1000 SU. About 50 m up the path there were more cyclamen, all with plain leaves but no signs of flowers or fruits. The density here was higher, estimated at 3-4 plants per sq m (one plant per 3 sq ft), some of them being small, probably seedlings. Other aspects of the site were as before, only the slope was rather steeper, estimated at 1:2. We suspected that cyclamen grow all along the south (north-facing) side of the valley at varying but rather low densities. Because we were in a national park, we restricted our investigations to well worn footpaths and left the path only in the first area described above. The bottom of the slope was in any case quite precipitous and would have been extremely difficult to try and scramble up, especially in the rain.

We did not have the time to investigate the third valley, the Belianska dolina which lies 3 km to the north and parallel with the Necpalska dolina, with Belá-Dulice at its mouth. We also thought that we did not go far enough up the Lubochnianska dolina. The mouths of the other two valleys are about 13-15 km south of the mouth of the Lubochnianska and it could be that cyclamen are to be found only in the higher reaches.

## Low Tatras

The Slovak Republic has many caves, and I was eager to visit an ice cave, which have ice formations even in summer. The Demänovská dolina south of Liptovský Mikoláš has such a cave. My sister had arranged to meet a friend in Košice on 3 September, and as we had to go through Liptovský Mikolaš, conveniently on the main rail link from Zilina to the east, we were able to visit the Demänovská dolina. Many Germans come to this area in winter for the skiing, and the whole valley is reminiscent of Germany or Austria with even signs and menus in both German and English. The atmosphere is totally different from the Velká Fatra.

We arrived in the afternoon of the day before (2 September), and were told at the

hotel there was still time to visit the cave, which was on the bus route up the valley to Demänovská jaskyna Slobody (clearly marked on map 122, Nizke Tatry - Chopok). This turned out not to be the ice cave but it was still very interesting, with some colourful limestone formations, although the guide spoke only in Slovak. Tours are at set times and there is quite a stiff walk up to the entrance, so it was not until we walked down again that I noticed cyclamen growing along the sides of the path.

The cave lies at about 700 m (2,300 ft) in these green and rounded hills, and the path leading up from the road is marked with the sign "W Jaskyna", going behind the buffet and souvenir huts across from the car park, bearing to the left. It also has a blue way mark. The first colonies on the path were growing between the first two trees (Norway spruce again) on the right side of the path (as you go up to the cave), the first of these trees having the blue way mark on it. More cyclamen, including young plants, were scattered across the slope which had a generally open aspect. All had plain leaves with a dirty purple on the underside and no signs of flowers or fruits. The leaves were smaller than those I found in the Velká Fatra, a typical measurement being 2 cm wide x 1.5 cm (¾ x ½ in) from apex to sinus. Associated plants were *Asarum europaeum*, wood sorrel, *Geranium robertianum*, moss, ferns and grass. The slope was west-facing, about 1:4 with thin dry soil over limestone and scattered litter. Cyclamen were not growing where the herb layer was thick or on limestone outcrops. The path proceeded up the slope in a series of hairpin bends and cyclamen were found on the left-hand side of the path after the first bend and as far as about halfway to the second bend. Colonies were well scattered, but plants in each were numerous.

After our descent to the car park area, I walked back to the hotel, following the green path down the valley (ie northwards), crossing and re-crossing a stream. After about 0.75 km I came to a bridge where the path turned eastwards at signs to Ilanovské sedlo and Ilanovská dolina. About 5 m before the bridge, in a triangular area on the left by the stream (the apex of the triangle pointing north-west), were many cyclamen with lots of moss, wood sorrel, grass and orchids in fruit (I could not tell what they were) under sparse Norway spruce. I estimated the density at 15-20 plants per sq m (2 per sq ft). All had plain leaves with deep purple undersides and again no flowers or fruits. There were many small plants which I took to be indicative of regeneration. Cyclamen were also growing at the base of the slope on the other side of the path from the triangular area. Although not marked, the path continued as far as the ice cave (Demänovská l' adová jaskyna) a distance of 1.25 km. I found cyclamen for the next 0.9 km or so wherever the tree and herb layers were thin enough. After that the vegetation was consistently thicker and I found no more cyclamen. Initially all plants had plain leaves, but from about halfway from the triangular area leaves showed lighter green rays radiating from the sinus.

The next day I took the path part of the way up to the ice cave (there was not time to fit in a cave tour, which the guide book says is anyway more impressive in early summer) and found cyclamen growing in scattered dense colonies on both sides of the path, including where there was grass or moss or outcrops of limestone. Plants had either plain green leaves or paler leaves with lighter green rays, but no flowers or fruits. There were some helpful and informative sign boards along the path. One explained the trees to be found in the area: 50% Norway spruce, 30% Scots pine and some yew. Another showed the birds and mammals (including eagle owl, bear and lynx), and the last one I reached depicted some of the rare and interesting flowers. It did not include cyclamen.



# *Cyclamen purpurascens*: a Dutch project

*Joseph Rupreht*

*Cyclamen purpurascens* has been described as difficult to grow and is not widely sold. Its charms can overwhelm any cyclamen lover: winter hardiness, flowering in the late summer on barren forest floors, its unique transparent purple colour, and its near-evergreen leaves, varying so much in pattern and intensity of silvering. Above all is the lovely scent, unforgettable where a hundred or more plants grow close together, and where the saturated air is reasonably cool, humid and calm. This unique scent has been compared by the President Emeritus of the International Dendrology Society, Baroness Jelena de Belder, to the scent of the Japanese *Camellia sasanqua*: uniquely refreshing, captivatingly sweet, non-pervasive, ephemeral and yet indelible.

I spent my childhood in a Slovenian region where *C. purpurascens* was abundant. The scent easily reaches a child's nose, but not an adult's. It does not carry and spread well in the air. There are exceptional beech forest slopes on calcareous mountains where, towards evening, one can walk through cyclamen-scented air slowly streaming downwards, but these idyllic spots are rare.

The rarity of *C. purpurascens* in cultivation is due to the difficulty of growing it. Nevertheless, it appears that *C. purpurascens* can be quite happy in the demanding climate of a Dutch polder (land reclaimed from the sea) with its desiccating frosty winds, prolonged wet periods, and some droughts. It seems that a thick underground mat of tree roots and some building rubble can work wonders. The only invincible threats remaining are snails and slugs, which may damage plants considerably during periods of slow growth, and destroy most seedlings. In their Slovenian habitat I have not seen *C. purpurascens* plants of such size and so profusely flowering as some of them in our polder. Eighty flowers within four weeks and 60 leaves do occur on a single plant here. True, these plants have not been disturbed for 15 years. True, too, some vigorous plants have perished, for no obvious reason. [*Editor's note*: Dr Rupreht has sent us some photographs showing what a beautiful and healthy planting he has established.]

## *C. purpurascens* seeds are a precious commodity

Dutch (and other) cyclamen growers producing several species of cyclamen for sale from seed select and breed plants for desirable characteristics. Selection is usually for plant size or flower colour. Late- and early-flowering specimens can also be inter-crossed and further selected, to extend the flowering season of the various species. A major obstacle in the way of producing *C. purpurascens* commercially is the difficulty of obtaining seed. It occurred to us that a battery of potted *C. purpurascens* in a glass house might allow more controlled and reliable conditions for seed production, allowing large-scale commercial propagation.

In 1998, my sister Marta and Dr D Soban collected in Slovenia about 550 *C. purpurascens* seeds. The labour and patience required are beyond imagination and will be appreciated only by someone who has tried to collect only 20 good seeds in the wild. It is difficult to locate the plant, as leaves are not always present in June-July. The seed capsule may not be ripe, may disappear the day it ripens, or is found empty.

With another 15 Dutch seeds, 500 from Slovenia were soaked in water and sown on normal compost on 24 August 1998. By February 1999 only 10% of seeds had germinated, most of them before October 1998. All these seedlings were successfully pricked out in February or later. The same trays with the remaining ungerminated seeds were then kept in a cold store at 2°C (36°F) for six weeks, then moved to a semi-shaded glass house at 15-20°C (59-68°F). Between early September and 20 November 1999 many more seeds germinated, as shown in the Table.

The seedlings which had germinated in 1998 grew through the winter and spring. The sturdy plants, with more than eight mature leaves each, produced flowers from July to September 1999, and were sale size. Most of them now grow in the glass house, potted and destined for future production of seeds (some have been planted out in the polder and are doing well). No secrets are involved in this success. Normal compost, occasional watering with the ditch water, and cooling during spells of very hot weather.

**Table : *C. purpurascens* germination**

| Seed batch | number | germination | | total germination |
|---|---|---|---|---|
| | | before 6 Sept 99 | Sept-Nov 99 | |
| **Batch 1** | 432 | 47 | 64 | 25% |
| **Batch 2** | 179 | 7 | 77 | 47% |
| **Batch 3** | 58 | 5 | 15 | 34% |

Seed batch 1 was from Styria, a province in Slovenia bordering on Austria, altitude 350-1,000 m (1,150-3,280 ft). Batch 2 was from Jezersko, very alpine, altitude 1,200-1,500 m (3,940-4,920 ft). Batch 3 was from the Dutch polder. All seeds had dried out somewhat between collection and sowing.

## Rescue for uprooted plants

In Slovenia, quite legal construction of houses and roads uproots and buries countless numbers of *C. purpurascens* plants. Other species are affected in just the same way, in other countries. Some plants die right away, others linger on the edges of excavations for years before they are eroded and fall. (Such were the plants we rescued for the seed bench in Holland.) In the wild, *C. purpurascens* takes many years to mature, and its proliferation capacities are obviously limited. It survives only undisturbed in a suitable location. One building site alone can destroy several thousand plants. A systematic programme for diverting these plants into horticultural cultivation would be a worthwhile conservation effort. First attempts towards such a programme for doomed *C. purpurascens* in Slovenia have been, so far, disappointingly unsuccessful. Bureaucracies are big and *C. purpurascens* plants are so small, but this idea does seem worth persevering with.



## Further steps

Sixty plants were brought from Slovenia for seed production (see Box) and are thriving extremely well, though seed set was variable in 1999. The *C. purpurascens* grown from 1998 seedlings has set some seed, but plants are still very young. Pollination has been aided by brush and fingers in all plants.

Another set of plants from the Dolomites, altitude 1,000 m (3,280 ft), has joined the seed production bench, and a few more plants are expected from the Fatra region. This means that the genetic pool for seed production will represent three prominent regions of *C. purpurascens* distribution, giving a broader base for crossing and subsequent selection for desired characteristics. At first opportunity a search for a white *C. purpurascens* will be resumed, in Croatia.

## Aims of producing *C. purpurascens* commercially

Once sufficient numbers of *C. purpurascens* are produced, more people will be able to acquire plants, more cheaply than currently. *C. purpurascens* will be easier to establish in cultivation, with constant supplies for replenishment, if necessary. Moreover, the seed-raised plant from the grower has the best possible chance of success – much more reliable than plants dug from the wild. This ready supply of commercially cultivated plants will reduce the threat to natural stands, helping their conservation (*C. purpurascens* enjoys no special protection in Slovenia). It is too soon to predict when our project will result in significant commercial sales of *C. purpurascens*, but we think we are on the right scent.

* * *

# Letter from America

*Edward Rothman*

Some of us Americans find it pretty tough going getting started with growing cyclamen. Many English growers think "Why, everyone knows that, no need even to mention such details!". As a result one simply experiments, often with surprisingly good results. After all, the sun-drenched cyclamen sites of the Mediterranean are light-years apart from English garden conditions – and from my Pennsylvania forest world. When I receive glasshouse-grown plants by mail order, the tubers are always surface-exposed. This presents a problem for me as all my tubers are buried a good 10cm (4in) below the surface. I therefore have to plant new arrivals in scooped-out pits so as not to bury the foliage. After dormancy and leaf drop, I cover the pit with soft organic short-needle conifer material, so that the next crop of leaves will not have to struggle up out of the depths. As a result, some species such as *C. cyprium* are easy for me, whereas English growers think them difficult outdoors. In contrast, I haven't found good sites for *C. mirabile* nor for some *C. trochopteranthum*.

I find great variation in results from forms of a single species. For example, albino

forms of *C. repandum* erupt at the start of May, show themselves with fine flowers for only six weeks, then hide in dormancy. The more vigorous pink forms last for all the spring months and make me question their identification.

I've noticed that cyclamen flowers may last for many weeks but once they have been successfully pollinated, drop their flowers next day and the stem begins to coil. Pollen seem to be very slow to mature and when I really desire seed (rather than the enjoyment of the flowers), I have to hand-pollinate repeatedly every few days. When the pollen is truly ripe it is visible as a copious white powder. A plague has exterminated all our wild honey-bees, but the large bumble bees have been left unharmed. It's amusing to see them sit their feet on the first (June 26) *C. #hederifolium* flower auricles to probe the flower interiors.

I've learned that *C. coum* seed pods ripen much earlier than those of *C. hederifolium* and are only half or a third the size of the latter. When the pods split open to expose the seeds, it is a race to beat the ants or the birds to the prize. A light cover of dry short fir needles fools these predators – and sometimes me as well. (A greenhouse may seem the obvious answer, but I refuse to defile my natural-looking area with such a man-made structure.) Often a cluster of seedlings emerges right on top of the parent plant – I leave these alone as they are always more vigorous than isolated plantings. I try to keep seedlings "in the green" as long as possible to fatten up the newly forming tuber to the maximum.

My plants do better with a good bit of light but never in heat-producing direct sunshine. Our township has dumped piles of chopped-up discarded Christmas tree in trash mountains, and in today's 90°F (32°C) heat, I've been placing sifted needles all around the best cyclamen to protect them from the voluminous Fall leaf drop which can settle in thick sheets like pages in a telephone directory.

* * *

## Cyclamen in a barrel

### *Benjamin Wilkes*

While a barrel may not seem an obvious place for cyclamen, I thought readers of the *Journal* might be interested to hear of my success with autumn species grown in such a container.

In about 1994, I planted a Japanese maple *Acer palmatum* 'Senkaki' in a half whisky cask. Its diameter is about 60cm (24in) or a bit more, and its depth about the same. I put about 20cm (8in) of rubble in the bottom over the drainage holes, then filled it with a mixture of loam from the garden and bagged compost. The maple went in and enjoyed itself, and is now nearly 2m (6ft) tall with gorgeous foliage and red twigs.

In 1995, I planted half a dozen snakes-head fritillaries, *F. meleagris*, around the tree. They also thrive and produce literally hundreds of seedlings each year, some



of which I prick out when I can find the time and inclination. The white-flowered type grows as well as the purple-checked one.

In 1997, I added half a dozen two-year old *C. intaminatum* grown from seed, and three each of *C. mirabile* and *C. cilicium* – and somehow a stray *C. coum* got in as well. All the species grow marvellously mixed up together, and the surface of the barrel (dressed with grit) is ablaze with pink and white blossom for several weeks in late summer and into September. When the cyclamen are dying down in spring, the fritillaries are showing up well; and at all times the maple is an eye-catcher.

The barrel receives plenty of sunshine, is watered in summer but otherwise is left to itself, where it takes wind and frosts. The garden is in a northern suburb of Worcester.

I can recommend this combination therefore for a tiny garden with little space – just get a good-sized barrel, one maple (but not the weeping kind), some fritillaries (easily bought as bulbs) and some seed-grown cyclamen of the *cilicium* group. Easy!

* * *

## The Moira Reid Trophy

### *Melvyn Jope*

Moira Reid was a contemporary of my grandmother (both now dead), but unlike my grandmother who was Cornish Moira Reid was of Irish descent, and lived at Moyclare in Liskeard, Cornwall. She was a knowledgeable plantswoman who I believe met my grandmother through a shared interest in plants and flower arranging. She always encouraged my own interest in plants, and I decided to donate the trophy just before she died.

After my grandmother passed away I always visited Moira if I was in Cornwall on business. At the time (about five years ago) I used to see her about once a month. Whenever I turned up she would always say, "I'm glad you've come, could you please..." and this would usually mean lifting something or carrying something, because while Moira's intellect was still very much intact her body was by then less willing and she found physical work very difficult.

My abiding memory is of the occasion when she asked if I could help to rescue a bird which was trapped between a polythene lining and the glass of her greenhouse. We decided that the best way was to hold the frightened bird in place by using the handle of one of her walking sticks. Gently pressing this against the polythene, we cut a hole in it to release the bird. When we did this we found it was a goldcrest. Neither of us had seen this tiny bird so close before, so we had a good look at it and tried to straighten out its ruffled feathers. When we judged it suitably composed, we stepped outside the greenhouse, and wishing the bird "God speed" I released it into the air. To our horror, we watched a sparrow-hawk fly down from a tall fir, catch the rescued bird, and take it back and eat it.

Perhaps there is a moral here somewhere.

# Cyclamen in my Norfolk garden

## *Peter Elphick*

The soil in my small garden consists of a very light soil overlying a deep layer of flint shingle, so is very well drained. Over many years I have mulched with home-made compost wherever possible, and some areas are now more retentive of moisture than others.

The cyclamen season begins with *C. purpurascens*, about a dozen plants tucked into a small space between a *Corokia* and an *Ilex* 'Golden King'. This space being very dry means that I have to water them all through the year if we have a spell without rain of more than a few days; however, I feel that it's worth the effort as they grow and flower quite well, even obliging with a few self-sown seedlings.

Very little needs to be said about *C. hederifolium* except that it comes up in every corner of the garden with leaves of every conceivable shape and pattern. As to flower colour, I find after a few years, white seems to predominate and at that time some are dug out and, dare I say it, conveyed to the bin.

*Cyclamen cilicium* flowers at around the same time as *C. hederifolium* with me, and has increased by self-seeding steadily over the years, until now I have a patch some two metres across with here and there a plant of *C. intaminatum*, which do not seem to self-seed.

Some time in September the leaves of *C. cyprium* become visible at the base of the north-facing wall of our bungalow. It is many years since the first plant was put there, and there is now quite a nice clump that flowers well, with the last not disappearing until early in the New Year. Viable seed is set and I have noted a few seedlings.

I have *C. coum* in several spots, both in shade and in full sun, and all are doing moderately well. A clump of silver-leaved plants in dappled shade protected by a large *Mahonia* 'Charity' seem particularly happy, having good-sized leaves and flowers ranging from white to a good deep pink.

The only other species I grow outside in any quantity is *C. repandum* and for me this is the star. From a few plants around eight or so years ago, I now have a patch three metres by two metres under our weeping birch, which is a lovely sight in early spring. The few plants of ssp. *peloponnesiacum* that have found their way into the group seem to flower later and keep their leaves much longer. They also grow against an east-facing wall in a shingle driveway where it is very windy and gets a lot of full sun. The foliage never seems to wilt, a good quantity of seed is set and seedlings are spreading along the base of this wall. Could we add wind to the means of seed dispersal?

Odd plants of *C. pseudibericum, C. creticum, C. persicum, C. libanoticum* and *C.* x *wellensiekii* are in place, but it is early days yet to know how many of these will succeed with me. I am tempted to try *C. parviflorum* in the same spot as the *C. purpurascens*, but have yet to muster the bravado to do this at the moment, as I have only just found how to grow them in pots (I think!).

The rest of my small collection are in clay pots plunged to their rims in sharp sand in a specially made coldframe. Most of these grow and flower quite well, although I have to admit that I struggle to get the watering right for some species. *C. balearicum* and *C. creticum* I have difficulty with, and *C. graecum* performs better some years than others.



*Cyclamen rohlfsianum* spends the winter months in a frame in the greenhouse, which is kept at around 10°C (50°F). For the rest of the year the pots are partly lunged in the frame, where they receive some irregular watering, but I still have problems getting them to flower consistently every year.

In the shadiest corner of this frame are kept my few plants of *C. parviflorum* and silver-leaved plants of *C. purpurascens*. These really seem to enjoy this spot and reward the individual attention by flowering very well for me.

# Growing cyclamen in Adelaide

## *Beverly Phillips*

I live in Adelaide, South Australia. The city is on a narrow plain which runs north-south. The western boundary is the sea and the eastern a low range of hills up to about 700m (2,300ft). The latitude is 35° south, and the climate broadly Mediterranean, with dry summers – minimal rain from November to March inclusive, and day temperatures then typically around 26-29°C (the low 80s°F). Winter is mild and wet, with day temperatures in the coldest months generally around 15-16°C (60°F), falling to around 7-8°C (45°F) at night. Though there are frosts they are not severe: the lowest temperature ever recorded here is -1°C (30°F).

I have a small rock garden of four shallow tiers. It is situated in a difficult position between two suburban houses. As it faces north, it gets full sun for several hours in the middle of the day in summer. I hoped it might provide some of the heat-loving cyclamen with a suitable home and this has turned out to be the case. The top tier has a lot of *Cyclamen persicum* doing very well. They start flowering in June and continue for several months, the flowers only dying down when the weather becomes quite warm in Spring. The next tier is planted with *C. rohlfsianum* and while they are doing well and there are some beautiful leaf patterns, they have not yet flowered. As most of them are three years old or less, I may have to be patient a while longer. The third tier contains *C. graecum* and there are lots of plants doing well. Some have not yet flowered but most of the larger ones have done so.

The bottom level has recently been planted with *C. africanum* seedlings which I hope will like the position . I have *C. africanum* growing elsewhere in my garden and have noticed that it doesn't flower as well in cooler and damper conditions as it did when in a pot and kept warmer and drier.

In the summer I watered the cyclamen only twice, mainly to stop the mulch of pea straw blowing away. Given the above, I was surprised to find two plants of *C. cilicium* thriving and flowering among *C. graecum*. I'm not sure how they got there but suppose that I may have planted them accidentally as single-leaf seedlings when the differences would not have been so apparent. That they have not only survived two long hot and dry summers, but are also increasing in size and flowering well seems a little surprising but perhaps it is just their Turkish heritage asserting itself.

Apart from the species I grow in my "hot" rock garden, in other more favourable areas I have *C. hederifolium, C. coum, C. cyprium, C. creticum, C. repandum* and *C. trochopteranthum*. All are planted under trees and shrubs and while they don't get a lot of extra water in summer, they are kept reasonably cool in the shade.

## The season

England and Wales had the sunniest winter in nearly a century, with an average of 152 minutes of daily sunshine easily beating the previous recent record of 143 minutes set in 1948-9. This was then followed by the wettest spring since 1983, with widespread floods in many areas, and long spells in which the ground stayed sodden. The great bulk of the rain came almost non-stop in April and May; December and February had also been rather wet in some areas (though by the end of winter Stewart Richards in the west Midlands was having to use his sprinkler!).

Obviously, the brighter winter weather brought our light conditions a little closer than usual to the stronger light that cyclamen are used to in their Mediterranean homes. But it's also true that the wetter spring is likely to have suited many of them, too. We are so used to thinking of the Mediterranean as hot and dry that we tend to forget how wet winter and spring can be there. *Cyclamen hederifolium* and *C. repandum* (and its allies *C. balearicum* and *C. creticum*) generally get more rain than is normal in England right through from November to March. *Cyclamen coum* can get very wet in that period (in most months of the year, it gets what might be described as "English" amounts of precipitation). *Cyclamen purpurascens* may be very wet in late winter or early spring, depending on snow melt conditions (incidentally, it's worth noting that in the wild this species normally gets more rain in May and June than England normaly gets then). From December to February even "dry" species such as *C. graecum, C. persicum* and, particularly *C. libanoticum* usually get heavier rainfall in the wild than is normal in England, as do the southern Turkish cyclamen species and (for the first part of this period) *C. rohlfsianum*.

So weather that made headlines here might not have seemed so odd to many of our cyclamen. How did they fare in practice? As usual, we have put together the experience of growers in several different parts of the country, to get an overall picture.

For once, theory is largely confirmed by what has happened in practice. In Wiltshire, Jeremy Wood had "probably the best year ever" for *C. coum* grown outside. Others also found *C. coum* magnificent this year, both in number of flowers and in how long they stayed in flower, with a display from well before Christmas (even early November for some), through its best weeks in February, and right on at least for some people into mid-April. In West Yorkshire Trudy Charlesworth noted that late-flowering deeper-coloured forms with very attractive leaves seemed especially good this year. Mary Saunders in Devon found that *C. coum* 'Golan Heights' had already ripened its seed by mid-May, well ahead of other cyclamen apart from *C. intaminatum*; she wonders whether others find this form particularly early in ripening seed [*Editor's note*: do please let us know!].

*C. trochopteranthum* seems to have had a mixed year, for some people doing as well as *C. coum*, less happy for others.

*Cyclamen pseudibericum* has also enjoyed the season. Meg Baker up in the Gloucestershire hills reports a wonderful year for the species, her best ever, both for "ordinary" types and for the paler-flowered ones. Her view is that this was a response to wet weather in the previous summer, as her March was quite dry, with the rain holding off until April. Jeremy Wood had particularly good flowers on *C. pseudibericum* in a sink. In her lovely garden between Exmoor and the sea in Somerset, Joan Loraine found a single self-sown *C. pseudibericum* flowering for over six weeks in an area which has little else of interest in the early months of the year; she is planning to follow its lead and make this a "*pseudibericum* area". It was an "on"



year for this species (which sometimes misses a year altogether) with Trudy Charlesworth, and the species also flowered well for the other growers.

Several people scored better than usual with *C. parviflorum*; though it is about the only species that Mary Saunders finds difficult, this year it has not only flowered for her but also set seed.

It has been a generally good year for *C. persicum* (growing so succulently this year for Mary that, unusually, some leaves have fallen victim to the slugs). Peter Moore in Kent reports that the relatively hardy form descended from plants collected by the Society on the Golan Heights in Israel has been a great success this year, flowering well and setting seed despite (or because of?) being subjected to a lot of rain. Erna Frank on her hilltop in Surrey has found *C. persicum* particularly good, with large long-lasting flowers.

*Cyclamen repandum* and its allies and hybrids have enjoyed the season in most parts of the country. Both Ron Evans and Meg Baker had hard frosts in December; Ron lost some *C. repandum*, perhaps because of this, and Meg found they lost their early leaves, then in April had their flowers shrivelled in the rain. However, Meg had good seed set in the warmth of early May from her more sheltered plants, and Ron had good flowers on the survivors. Joan Loraine found *C. balearicum* flowering where it had evidently sown itself, under a *Rhus cotinus* in the open garden rather than in the shelter of the wood where she had been trying to establish itself; for future plantings, she will yield to the plant's own guidance. Erna Frank has also found *C. balearicum* really get going this year, after years of very modest performance; her plants (or at least their self-sown seedlings) have jumped out of a bulb frame into the nearest border, where they will now be allowed to stay – a special privilege in Erna's garden, so crowded with rare treasures that most uninvited seedlings are ruthlessly evicted. *C. repandum* has looked lovely among dwarf bulbs in Peter Moore's shady wild lawn, and Stewart Richards says his *C. repandum* in the garden have been superb this year, with the group also good in pots (though Jeremy Wood has found it not so good under glass this year). Though shading from March has allowed the group to flower magnificently under glass for Mary Saunders, she has found seed set better out in the open.

Erna Frank has found *C. libanoticum* wonderful this year, with very large long-lasting flowers in a shady part of a greenhouse.

People who normally expect good seed crops from *C. graecum* and *C. rohlfsianum* have found them disappointing this year, and there have been reports of trouble with seed set on *C. africanum* too, with isolated shortfalls on some other species.

Meg Baker reports huge leaves on *C. hederifolium*, getting bigger and bigger as the season progressed, one silver leaf eventually reaching over 16x20 cm (6¼x5¼ in); she says she could sole her shoes with them.

There have been some slug troubles, but surprisingly (or through good husbandry?) the threatened botrytis epidemic did not emerge. Several people have had a very bad year for mice, voles and shrews, infuriating Peter Moore by nipping off the seed pods without even having the decency to eat them.

Thanks to our barometer growers Mike and Mary Saunders (Devon), Joan Loraine (Somerset), Jeremy Wood (Wilts), Meg Baker (Gloucs), Peter Moore (Kent), Erna Frank (Surrey), Stewart and Janet Richards (Worcs), Ron Evans (Notts), Trudy Charlesworth (W Yorks) and Ray Johnstone (Tyne & Wear).

**Help wanted** Pressure of work forces Ray to leave our growers' panel. The Editor appeals for a replacement volunteer, living in the north east, north west or Scotland.

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