VOL. XII No. 2 December 1988

The CYCLAMEN Society's Journal

Editor: J. A. Mars

ISSN No. 0143–3571

Printed by ZiPrint *Parchment (Oxford) Ltd., 60 Hurst Street, Oxford*
From originals supplied by Publisher

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

THE

CYCLAMEN SOCIETY'S

VOL: XII No. 2 JOURNAL DECEMBER 1988

THE SOCIETY'S OFFICERS 1988/89

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G. R. Speed, (retires 1991)
I. White, (retires 1990)
Mrs. J. P. White, (retires 1991)
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Mrs. E. Frank,
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HONORARY SCIENTIFIC ADVISER:

R. D. Meikle,

THE EDITOR'S PAGE

Many members did not receive their June 1988 Journal until some weeks after it was published. I realised something had gone wrong when telephone calls alerted me. I contacted the Oxford Mailing Centre who told me that all Journals were posted on the 16th June. The Mailing Centre checked more than once with the Oxford Post Office. Eventually the Post Office admitted that because of industrial action many Journals were held up at Oxford for some weeks. The Post Office accepted responsibility and in recompense refunded half the postal charges. We trust that this will not happen again.

Members who have seen the Kew Monograph *The Genus Cyclamen* will have noted some changes in nomenclature. The Cyclamen Society's committee has unanimously agreed to adopt the new names, though the nomenclature of *C. coum* may well be considerably affected by the Society's continuing fieldwork on this species. Perhaps the most important change

(though it will come as little surprise to many members and has been much foreshadowed in this Journal) is that *C. cilicium* var. *intaminatum* is raised to specific status as *C. intaminatum*. The other changes are as follows:

C. repandum var. *repandum* becomes *C. repandum* subspecies *repandum*.

C. repandum var. *peloponnese* becomes *C. repandum* subsp. *peloponnesiacum*.

C. repandum var. *rhodense* becomes *C. repandum* subsp. *rhodense*.

C. coum var. *coum* becomes *C. coum* subsp. *coum*.

C. coum var. *caucasicum* becomes *C. coum* subsp. *caucasicum*.

C. purpurascens var. *purpurascens* becomes *C. purpurascens* subsp. *purpurascens*.

C. purpurascens var. *ponticum* (together with the plants known to some as *C. colchicum*) becomes *C. purpurascens* subsp. *ponticum*.

Then there is the newly discovered cyclamen in N.E. Somalia which was declared to be a new and distinct species, named *C. somalense*.

Our annual conferences are held each year in different locations and are always well supported by home members. These are of course open to all members of the Society. We would welcome overseas members and if a visit to this country should coincide with a conference we can assure you of a pleasant and instructive weekend. Next year we will be at Bath, an historical old city with many Roman connections. Some years ago in 1982 we held an international conference attended by a number of members from the U.S.A., Canada and Europe. If there would be sufficient interest it may be possible to organise another. Would overseas members give thought to this idea and perhaps let the Secretary know of your interest. It may be possible to hold it in a suitably interesting venue such as Oxford or Cambridge.

The controversy over *Cyclamen intaminatum* deepens. In this Journal there are two responses to Ole Sonderhousen's article in Vol. XII No. 1. Both express different theories. Was *C. intaminatum* ever found by E.K.B. in the Burucek area or has the area in which this cyclamen grew been overrun by the new motorway thus eradicating the site of the cyclamen? Stranger things have happened. I still find it hard to believe that E.K.B. made mistakes of this nature. He spent so long in the area in 1934 and no doubt checked his findings. Further views and comments will be welcome.

Articles are welcome from members. Views and experiences are always of interest to others. However, please note that copy dates will be the 15th April for the June Journal and the 15th October for the December issue.

MINUTES OF THE A.G.M. OF THE CYCLAMEN SOCIETY

18th September 1988 at NEWMAN COLLEGE

Present:	Mr. F. W. Buglass	President
	Mr. P. J. M. Moore	Secretary
	Mr. G. Simpson	Treasurer
	Mr. J. A. Mars	Editor
	Mr. M. E. L. Jope	Show Secretary
	Mr. R. H. Bailey	Publications Secretary
	Mrs H. Temple	Seed Distribution Manager

5 members of committee and 40 other members.

1. The minutes of the last A.G.M. were approved as a correct record.
2. Matters arising: There were no matters arising.
3. President's Address.

My first task and pleasure is to thank Vic and Jan Aspland for their organisation of this conference and to convey our thanks to the Bursar and staff of the college for the efficient and kindly way in which they have received us.

It is I think, now more than obvious that these conferences and A.G.M. weekends are proving their worth beyond doubt. They are each year better than the previous year.

We completed a second visit to Turkey exploring the habitats of *coum* and related species. The team was Richard Bailey, leader, Peter Moore and Ross Lilywhite and our thanks go to them for a careful and thorough study. Dr. Meriman Ozatah was unfortunately not well enough to be with the team throughout and we hope she is now fully recovered. The R.H.S. and A.G.S. both made generous donations for which we are indeed grateful. Other donations have been added to our scientific fund. We are now investigating an exploration into the Caucasus and we are indebted to Jeremy Wood who is our coordinator for such tours.

Graham Simpson who has for many years guided most successfully our finances, has decided to retire and we wish him every success and pleasure in his retirement. We are as usual fortunate in that Hilary Temple, our very successful seed distribution manager, has volunteered to take over the treasurership and has found Miss P. Short to take over seed distribution. Three members of committee including the chairman, have completed their three year tenure and so have to retire. I would like to express on my behalf and yours our sincere thanks for excellent services. Also the same to all officers and committee members. Shows are now organised by Melvyn Jope and this show proves the success of his policies. We now have three trophies, a Buglass Salver, a rose bowl and the Nick Carter Bowl, for competition.

The Kew Handbook, *The Genus Cyclamen*, has now been published after several delays. A small number of changes in naming have been introduced and your committee decided to follow them until such time as we publish our Society monograph, a daunting task to come. My personal idea is that this should be published in species sections and not delayed for a complete monograph.

You have today seen part of the national collection of *Cyclamen purpurascens* in the care of Graham Simpson. I am not at this moment seeing eye to eye with the N.C.C.P.G. in connection with the naming of plants, the location of and responsibility for the national collection. We have in hand a project to photograph in colour all plants in the collection, an exacting and costly process but essential as memory alone cannot be the only means of identification.

I also wish to thank you, our members, for supporting the conference and from what I have seen and heard you are all enjoying yourselves, learning more about your favourite cyclamen. It is very pleasing to me to see so many old friends and even more encouraging to see younger members attending, for the future of the Society is in your hands.

It is expected that the next conference will be at Bath, 30th September/1st October 1989.

Finally I will close by apologising for the mistakes made in the article, Cyclamen Tubers — Part 9 in the June 1988 Journal. This article is being re-written in this Journal.

4. Secretary's Report.

Membership stands at 810.

Members wishing to serve on the committee will be very welcome.

The Library and slide library is held by Mr. K. Pearson.

The Society is indebted to Mr. J. Mann for the work he has done in providing duplicates of the Society's slides.

5. Treasurer's Report.

Another successful if unspectacular year. We have again benefited from generous donations and from support from members in purchasing both publications and surplus seeds. We have successfully completed a second expedition to Turkey aided by a grant of £200 from the Alpine Garden Society as well as a grant of £250 from the Royal Horticultural Society. Both these were received too late to be included in the 1987/88 accounts. Please continue your very valuable support.

6. Election of Officers and Committee.

President — Mr. F. W. Buglass was re-elected President.

Treasurer

Mrs. H. Temple — proposed by Mr. P. J. M. Moore.
seconded by Mrs. E. Frank.

Seed Distribution Manager

Miss P. Short proposed by Mrs. H. Temple
seconded by Mr. P. J. M. Moore

Committee members

Mrs. J. Bishop — proposed by Mr. G. Simpson
— seconded by Mr. P. J. M. Moore

Mr. G. Simpson — proposed by Mrs. H. Temple
— seconded by Mr. F. Buglass

Mr. G. Speed — proposed by Mr. F. W. Buglass
— seconded by Mr. G. Simpson

Mrs. J. White — proposed by Mr. I. White
— seconded by Mr. V. Aspland

All officers, Treasurer, Seed Distribution manager, and new committee members were elected unopposed.

7. Mr. A. Culverhouse was appointed as auditor.
8. Any other business.

Mr. R. Metcalf proposed that articles about the Society should appear in other Journals, both at home and overseas.

Mr. F. W. Buglass reported that Mr. R. Dunning was unable to be at this meeting and that publicity was of concern to the committee.

The library list will be published in the June Journal 1989.

A request to members for books to be donated to the library was made.

Mr. M. Jope requested help from members for plants for shows, manning the stands, and for an assistant show secretary.

There being no other business the meeting was declared closed.

SUBSCRIPTIONS — 1989

Subscriptions are due on the 1st January 1989. Members are asked to pay promptly using the renewal form enclosed. This will assist administration and also ensure continuity in the despatch of Journals in 1989.

All correspondence regarding membership should be addressed to the membership secretary, Dr. D. V. Bent, address as on the form.

PROGRAMME OF SHOWS 1989

The Society will be exhibiting at the following shows at the R.H.S., Vincent Square, London.

21st-22nd February
19th-20th September
31st October-1st November

Members are asked to lend plants for these shows and to offer help in manning the stands.

For further information please contact the show secretary, Melvyn Jope.

A.G.S. SHOWS 1989

A.G.S. Shows are open to Society members who are also members of the A.G.S.

The following are open to all.
North of England
Summer Show — South
Wirral Show

A.G.S. members will have the 1989 Year Book which has the conditions and schedules. Otherwise please contact the local A.G.S. Secretaries for information.

SEED DISTRIBUTION

Hilary Temple

As always, my thanks, and those of the Society, are due to the many people who helped with the seed distribution. The postal strike came at a difficult time distorting the arrival of seed donations and much delaying despatch of members' seeds.

Seeds of the following are still available, subject to being unsold:

Code Letters: C, D, E(Ty), G, H, I, J, K, L, M, O, P, Q, R, V, Z and wild collected L.

Some packets of selected forms of several coded species will also be available on a first come first served basis, to those who are willing to accept 'pot luck' (maximum 3 packets per Member — Order Code Pot Luck). All above seeds are 50p per packet.

There are also enough of the following to be able to offer them to members at two packets for the price of one: A, B, E, F, N, U, Y.

Please note that all payments should be in multiples of 50p.

For explanation of the code letters, please see pages 4 & 5 of Vol. XII No. 1, June 1988.

Some kinds will run out very quickly so please pay by limited amount cheque or if this is not possible, give plenty of choice.

Please enclose a self-addressed envelope (stamped or with 2 coupons) with your application, which should be sent to:

Mrs. Hilary Temple
The Cyclamen Society
[redacted]

This will be the last time I do the seed distribution so will Members please note that any correspondence with regard to the 1989 distribution should be addressed to: Miss Patricia Short, see front of Journal.

A MISCELLANY

Hugh Toye continues with his snippets of information and observation.

a. His solitary *graecum* (see page 34 Vol. XI No. 2) has been maintained again this summer in a deepish pot standing in about 1½ ins. of moist gravel in a cachepot in full sun indoors. It has now (4th October) 16 flowers or maturing buds and still 2 old leaves. Last year's seed capsules were planted in March but only one seed has germinated so far.

b. A small slightly scented *persicum* bought from Marks & Spencer last year has young leaves of the velvety texture found on *graecum* — very beautiful.

c. 6 or more of the huge tubers of *hederifolium* brought from France in 1978-82 have now come to grief — just leaving large collapsed holes, whether because of soil conditions or bizarre winter problems, he knows not. Certainly in a small garden, whose soil nevertheless varies enormously, cyclamen of all kinds flourish best in dry, light, even poor soil and again in places seed themselves (*hederifolium*, that is) prodigiously. His few *cyprium* are still alive under a broad-spreading *leylandii*; but it seems too dry a location for *pseudibericum*. He has more or less given up on *repandum* which don't like the garden and which in any case are so much swamped by spring bulbs that he can do without them. *Coum* are patchy but a neighbour has a vast show of them which have come from about 12 tubers planted 15 to 20 years ago and are a local sight, spreading from under bushes into one of the lawns. In a way they are the most rewarding species as they produce flowers when most required. But his fair success with *coum* seeds still hardly keeps pace with losses.

* * * * * *

Brian Cresswell makes the following observations on his cyclamen which he feels are somewhat unusual.

On 10th May he inspected his cold greenhouse where almost all his cyclamen are grown amongst other plants (useful and/or ornamental). He discovered to his astonishment a flower bud well hooked up above the compost, on his *Cyclamen purpurascens*, Lake Garda form, showing a fair length of petal. This flower opened on 23rd/24th May — could it be the earliest

bloom this season? The plant was bought at Nottingham last year from Melvyn Jope and has since had only leaves. There is now a second bud above the compost and at least a third developing. There is no sign of the leaves dying back or being replaced yet.

He has also noted that most of his *C. hederifolium* have yet to show significant leaf loss — in fact some still seem to be in full growth with no leaf loss at all.

* * * * * *

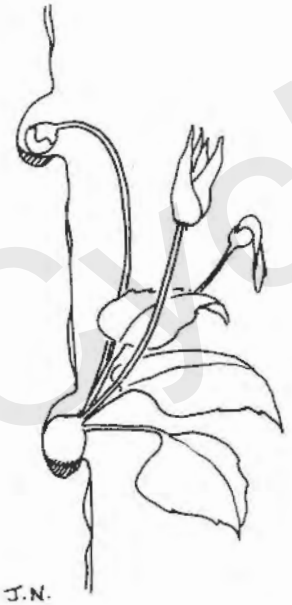
Cliff climbing by *Cyclamen persicum*

J. Nagington

Members of the Cyclamen Society may have wondered, as I have, why it is that *C. persicum* has straight seed peduncles whereas all the other species coil tightly during early development.

A possible explanation was provided by a visit to Cyprus during mid-April 1988 when *C. persicum* was seen in flower in many places in the South and West. The main habitat was in fissures and small potholes produced by rain erosion of the limestone outcrops.

In several places plants were growing on vertical rock faces, for example in the ancient quarry N. of the lighthouse at Paphos; on the walls cut out for the Tombs of the Kings at Paphos and on rock faces in cuttings for roads S. of Polis.



C. persicum growing on vertical rock

The plants had been in flower for several weeks and their season was almost over. Most had seed pods developing on their long straight peduncles. The movement of these in the breeze enabled them to explore the vertical rock face until a suitable crevice or hole was encountered when the seed pod would become lodged, perhaps aided by slight growth of the peduncle. Presumably the pod would then stay in situ until seed dispersal.

This provides a mechanism for the dispersal of seed vertically upwards, as well as laterally across vertical surfaces, where the uncoiling mechanism of the other species would be ineffectual. Such a colonisation method would have obvious survival value against grazing animals and in seeking congenial growing sites.

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THE SOCIETY'S CONFERENCE AT NEWMAN COLLEGE

17th-18th September 1988

This annual conference proved the popularity and value of these annual events. This was the best attended so far both by members from a distance who were resident and by members who lived close enough to attend daily. We have to thank Vic and Jan Aspland for the planning and organisation and their liaison with the Bursar and staff at the college all helped towards the success of the conference.

Melvyn Jope was responsible for the competitive show. On his suggestion the number of classes was increased to 12 this year and proved popular and beneficial for there were many more entries than in previous years. Competition for the trophies and the cash prizes seemed to encourage members to enter their cyclamen in the competitive classes. Judging was not easy and in consequence took longer than usual.

We thank the President for his cocktail party which was much enjoyed by all. The Society's dinner was also enjoyed and appreciated by all.

We now will look forward to the next conference at Bath, which should prove to be a popular venue with its historical connections.

CYCLAMEN SOCIETY CONFERENCE SHOW AWARDS 1988

		1st	2nd	3rd	H.C.	No of entries
Class	**1**	Chris Clennett	Ian White	Vic Aspland	—	9
Class	**2**	Brian Walker	Melvyn Jope	—	—	2
Class	**3**	Chris Clennett	Brian Walker	Melvyn Jope	Vic Aspland	12
Class	**4**	Ian White	Colin Clay	Chris Clennett	—	4
Class	**5**	Ian White	Vic Aspland	C. Lisle	Chris Clennett Mrs. G. Baker	12
Class	**6**	Vic Aspland	C. Lisle	Chris Clennett	—	4
Class	**7**	Ian White	C. Lisle	Melvyn Jope	—	6
Class	**8**	Melvyn Jope	Trevor Wiltshire	—	—	2
Class	**9**	Brian Walker	Brian Walker	T.B. Cresswell	—	5

Class 10	Brian Walker	Harvey Shepherd	Harvey Shepherd	—	4
Class 11	Peter Moore	Peter Moore	Peter Moore	—	4
Class 12	Mr. & Mrs. S.J. Richards	J.W. Cowper	Mr. & Mrs. J. Richards	Colin Clay	6

Nick Carter Memorial Trophy — awarded to the winner of Class 2 — Brian Walker.
Buglass Salver for the best plant in the show — awarded to Ian White — Class 4.
Buglass Bowl — awarded to the winner of Class 6 — Vic Aspland.
Prizes were generously donated by Phostrogen

THE SOCIETY'S EXPEDITION TO TURKEY, 11th-30th MARCH, 1988

A preliminary report has already been published in this journal (Vol. XII: 9-10). This second report is based upon an oral and slide presentation by Richard Bailey made to the Society's conference in September 1988.

The expedition, which was planned to complement the work of the 1987 expedition, studied sites around Istanbul and along the Black Sea coast east and west of Trabzon from Unye to Hopa and Artvin (see map p.) — the areas found to be of greatest interest in 1987. The society's instructions that we expand the studies made in 1987 on the leaf and flower characteristics distinguishing *C. coum* subsp. *coum* from subsp. *caucasicum* were twofold. Firstly, that a minimum of fifty plants, selected by objective methods, be studied at each site investigated in detail. Secondly, that sites for detailed study be chosen in pairs, one at a high the other at a low altitude, along the coast; each pair at approximately equal longitude. In all twenty-seven sites were studied (not all in detail) and data gathered on nearly four hundred plants using the same methods as were applied in 1987 (see Vol. XI: 38-42 for a detailed methodology) — although measurements of petal length and width were substituted for corresponding measurements of the flowers. The larger samples, and objective selection of plants, provided a more reliable statistical base — but reduced the total number of sites visited. The data collected has now been analysed by Dr. Basil Smith and, by and large, confirms the conclusions of the 1987 expedition — that

i. flower (petal) length decreases with altitude but increases eastwards.
ii. leaves become more rounded with altitude but more ovate eastwards.
iii. petal shape does not change with altitude although petals become more pointed towards the east.

In 1988 we obtained, albeit with difficulty, permission to collect, and import into Britain, plants of both *C. coum* and *C. parviflorum*. Some effort was, therefore, devoted to the collection of plants for horticultural purposes. Plants which showed the following traits were especially sought:-

white flowers — bicoloured flowers
especially dark flowers — fine leaf forms
C. coum with no white eye — *C. coum* with scent

Success was achieved, to some extent, in each category.

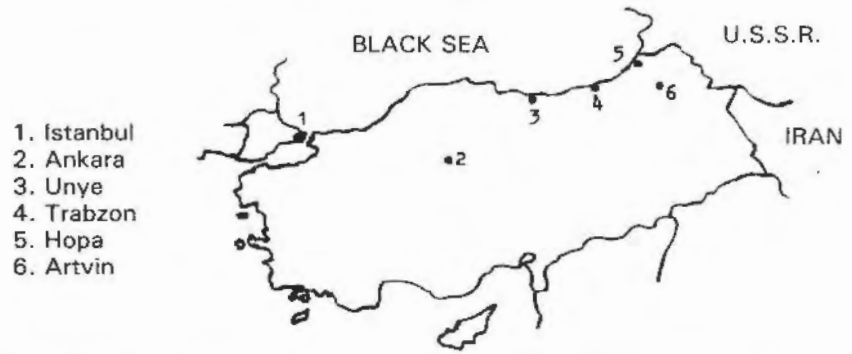
White forms of *C. coum*, without any purple eye, were found at two sites and a form of *C. parviflorum* so pale as to equal many commercially available forms of '*C. coum album*' was also collected. No plants of *C. coum* with white flowers and a purple eye were found. The origin of this common garden form still remains a mystery. Useful collections of both species with unusually dark flowers were also made. Sadly dark flowers and particularly attractive leaves were seldom, if ever, found on the same plant — perhaps this suggests a task for the plant breeder. Bicoloured flowers of *C. coum* (those with petals shading from centre to edge) were also sought. These were widely distributed along the coast. However, plants remarkably similar to the cultivars 'Tile Barn Elizabeth' and 'Maçka' were found — where — around Maçka! Scented forms of *C. coum* (*C. parviflorum* is normally scented) were also brought back to Britain. Amongst the fine leaf forms the most spectacular was undoubtedly the form of *C. coum* with pink marbled leaves found near Trabzon. However, some very fine silver-marbled plants were collected above Artvin.

Plants of *C. coum* whose flowers lacked any white eye were rare. The best specimens were noted in a National Park outside Istanbul — although occasional plants with this feature were found throughout our travels. It is of interest that the absence of a white eye is considered a diagnostic character of subsp. *caucasicum*. However, the plants outside Istanbul were in every other respect entirely typical of subsp. *coum*.

At each locality full notes were taken of the surrounding vegetation and the abiotic features of the site. Many photographs were taken including shots to show the range of flowers and leaves present. Black and white shots were also taken and it is hoped that some will be used in this journal. Herbarium specimens collected at most sites will, after further study, be deposited at Kew and at Gazi University, Ankara. Nearly one hundred and fifty plants were imported into Britain; many are now showing some growth.

It is anticipated that a number of notes will appear in this journal (and in the publications of other societies supporting the work) and that some results from both expeditions may be further reported in scientific journals. A paper on the bryophytes and lichens of the areas visited is in preparation.

The expedition members, Richard Bailey, Ross Lilywhite and Peter Moore, thank the Cyclamen Society, Alpine Garden Society and Royal Horticultural Society most sincerely for their very generous support.



1. Istanbul
2. Ankara
3. Unye
4. Trabzon
5. Hopa
6. Artvin

Map of Turkey to show the principal places visited by the 1988 expedition.

PRELIMINARY SCIENTIFIC RESULTS

Jeremy Wood

Note: Jeremy Wood, the leader of the 1987 expedition, makes the following observations to collate and clarify the results of both expeditions as far as can be done at this stage.

Basil Smith has used a computer to examine the data from this year's expedition. A lot more work needs to be done before it is possible to draw firm conclusions. In some cases the output from the computer is hard to interpret, and preliminary indications may not be borne out when the work is complete. With those reservations it is possible to make some tentative statements.

As observed last year, flower size seems to increase as you go eastwards and to decrease with altitude. These two factors only go a small way to explaining the measured differences in flower size, so there must be other causes not yet identified.

Petal shape becomes more pointed as you go eastwards, which is the result obtained last year, but again other factors appear to be involved.

The results for leaf shape are hard to interpret. There is some indication, as last year, that leaves become more ovate eastwards and more rounded with altitude, but so little of the variation is expiained by these two factors that it makes one wonder if the effect is genuine.

Last year no attempt was made to explain variation in the hastate pattern of the leaves. This year's results give indications of an effect due to altitude and a lesser effect due to shade density. The area of marbling is greatest at low altitude, and is greater in light shade than in dense shade. It may also become somewhat greater as you go eastwards.

Leaf size seems to increase along with shade density and also as you go eastwards. Again this character was not examined last year, but the possible effect of shade is in the direction that might be anticipated.

Finally, last year's conclusion that no two plant characters are correlated with one another has been confirmed this year. It is hard to put this finding alongside the concept of two recognisable subspecies of *C. coum* subsp. *coum* with orbicular leaves, small flowers and rounded petals, subsp. *caucasicum* with ovate leaves, larger flowers and pointed petals. There seems to be very little evidence that the three characters in question tend to combine together in the manner suggested, certainly within the confines of Turkey. Another idea that is current is that a pink eye is associated with subsp. *caucasicum*, and so ought to be more common the further east you go. This year's expedition found only one plant with a pink eye and that was near Istanbul.

THE MAIN LECTURE

THE CULTIVATION OF CYCLAMEN

V. A. Aspland

The representative of the genus cyclamen perhaps best known to the average gardener is the so-called cyclamen persicum hybrid. The modern plants offered under this name are the culmination of a breeding programme which

began in earnest in about the eighteen-fifties. The Victorian florists sought larger flowers, in a greater colour range than shown by the species in the wild. A number of the early forms are still recognisable in present-day catalogues, including some crested forms that would perhaps have been better placed on the compost heap!

Cyclamen have been of interest to botanists and herbalists since at least the fourth century B.C.: Theophrastus was certainly interested in the medicinal properties of cyclamen. The earliest reference I have seen to the cultivation of cyclamen in this country is in John Gerard's *Herbal* of 1597, which contains two woodcut illustrations of *Cyclamen hederifolium*. Gerard was so familiar with the plants that he believed them to be British natives, and reported that cyclamen: "groweth upon the mountains of Wales, on the hils of Lincolnshire, and in Somersetshire". It had clearly been in this country for a considerable time. Gerard was more herbalist than gardener, and regarded *C. hederifolium* as an absolute cure-all, claiming: "It scoureth the skin and taketh away sunne burning, and all blemishes of the face pilling of the haire and markes also that remain after the small pockes and mesels and given in wine to drinke it maketh a man drunke". Even if the patient was not cured, he was at least made to feel happier!

It is probable that Gerard only knew *C. hederifolium*, but by 1629 John Parkinson's *Paradisus in Sole Paradisus Terrestris* illustrated a further four species: *creticum*, *purpurascens*, *repandum*, and what he called the double flowered cyclamen of Antioch (a form of *persicum*). Also illustrated was a range of different leaf forms of *C. hederifolium*.

Genus cyclamen is broadly centered on the Mediterranean basin, but the habitats vary widely, from *rohlfsianum* growing in limestone gorges and plateaux in Libya to the form of *purpurascens* known as *fatrense* in the Tatra Mountains far to the north; from the form of *coum* known as *elegans* in the very low-lying area to the south of the Caspian Sea to *parviflorum* at up to 3000 metres in the Pontus Mountains. Given such a wide range of habitats and climates, how are all of these plants to be accommodated in our gardens?

The simplest way to divide the species and their needs is in terms of their hardiness. Readers in more favoured areas of the country might care to compare my climate with theirs. I live in the Midlands, at the bottom of a hollow. In summer (at least when the sun shines!), it is very hot and far too arid for *C. parviflorum*. In winter the frost drains down on to us and stays: unbroken frost for three weeks or more is not uncommon, with lows of 7° (-14°C), far too cold for *rohlfsianum*. I recognise four groups and begin with the hardiest.

1. Completely cold hardy

All of the plants in this group will survive in the open garden provided that they are given good drainage. *C. hederifolium* will tolerate thin poor soil overlaying limestone, or arid areas under trees where even grass struggles to survive, and give a very creditable display. Treated more generously with an annual leafmould mulch, in areas sheltered by small shrubs it will wax even fatter, and give a finer display of both leaves and flowers. It is also excellent for pot culture under glass. If inspected in late July/early August, resting tubers will show fresh new growth at the root tips and flower buds already in place, and within about three weeks of the first liberal soaking can be in full bloom.

C. coum is very useful for brightening dull winter days, particularly those of January and February, and is quite adaptable. It will tolerate the company of

grass as long as drainage is free, and of course does well under trees and shrubs. A number of growers have also had success with *coum* in rather coarse screes.

C. purpurascens is usually found as a woodlander in nature so prefers a higher organic content in the soil and associates well with dwarf rhododendrons etc., and the June/July flush of flowers has the added bonus of a strong and very sweet scent. An article by Brian Dutton of Illinois (Bulletin of the American Rock Garden Society 1979) referred to plants growing in the north Italian Alps and in particular to their saxatile proclivity! They inhabit very steep cliff areas where they grow as crevice plants. Taking this as his cue, he positioned tubers in crevices in his limestone rock garden where they have been happy with winter temperatures down to -20°C: pretty tough going!

Rather than merely surviving cold, *C. parviflorum* seems to prefer the coolest spot that can be found in the garden. (In a survey reported in the Cyclamen Society Journal, Alisdair Aird observed that in nature *C. parviflorum* experiences lower temperatures than we have in our gardens at all times of the year). I prefer pot culture: such a small plant is easily lost track of in the garden, and even small slugs can be a big problem. A cool and well shaded greenhouse or cold frame will give good results. The frequently-seen recommendation that the species needs water at all times should be treated with caution. It does indeed require to be slightly moist throughout the year, but when the new season's growth begins in July, the slightest excess can be rapidly fatal.

I have already referred to pot culture of the hardy species. This can be very satisfying, and has two great advantages: fine show plants can be raised and be kept in good condition, and the grower of the winter flowering species can inspect them at his leisure in the comfort of a glasshouse. Now to let you into a little secret: I have discovered the perfect compost for pot culture! The basic ingredients are: John Innes Compost No. 1 (a good source of sterile loam), $\frac{1}{8}$-inch potting grit, concreting sand (from the local builders merchant: coarser than silversand and cheaper too! But if you live near the coast beware of possible salt content), moss peat (NEVER sedge), and leafmould. Equal volumes of the first four with a sprinkle of bonemeal give a good basic compost. You may regard this as a pretty lean fare, with 50% drainage material. It is indeed, but has proved to be satisfactory in both clay and plastic pots; the surest way to kill a cyclamen is to subject it to excess water. In general plants grow more slowly in this compost than in richer compositions, but they will be hardier and more long-lived. For the woodlanders *purpurascens* and *repandum*, the peat can with advantage be replaced with leafmould if this is available.

A labour-saving way to grow plants under glass is in a sand plunge. This is a shallow trough filled with sand in which the pots (preferably clay) are plunged to the rim. Mine consist of a flat asbestos cement sheet base and wooden board sides, lined with polythene sheet to retain moisture, and are raised on legs of Handy-Angle to a level convenient for inspecting the plants. The advantages of plunges are many. The moist sand provides a large reservoir of water, so watering (into the sand only) is infrequent, perhaps only at two-week intervals even in high summer. The large mass means that roots heat up more slowly in summer, and cool down more slowly in severe winter weather.

2. Hardy under cold glass

This group includes *Cc. trochopteranthum, cilicium, mirabile, intaminatum*

Description of colour plates 1-3

1. *Cyclamen repandum X balearicum*: a first-generation plant. The flowers, without an exserted style, show the relatively bold or robust character which is usually the most obvious factor differentiating this variable cross from the parents.

2. *Cyclamen repandum X balearicum*: second-generation seedlings, from a single parent. As usual with this cross, the leaves as well as the flowers of second and subsequent generations span a tremendous range of variations, matching virtually all forms of the *repandum* alliance and illustrating the particularly close genetic relationship between *C. repandum* and its subspecies, *C. balearicum* and even (despite its extra pair of chromosomes) *C. creticum*.

3. *Cyclamen balearicum*: an unusually well marked leaf form.

Description of colour plates 4-5

4. *Cyclamen repandum* subsp. *repandum*: its flowers are variable in depth of colour and in petal length, but commonly reach an extreme of elegance — as here. The fragile threadlike character of that part of the leaf petioles which lies below ground is common to all members of the *repandum* alliance, and makes the leaves of pot-grown plants relatively unstable.

5. *Cyclamen repandum* f. *album*: a true albino.

and *pseudibericum*, which all flourish in standard compost, given the extra protection of a glasshouse or cold frame, where they can receive enough water to keep them only slightly moist in winter. *C. trochopteranthum* is perhaps a surprise; only reaching about 1500 metres altitude in S.W. Turkey its hardiness might have been considered suspect, but with me it does well.

C. cilicium makes a fine pot plant, and the flowers have the added advantage of a very strong scent, reminiscent of heather honey. It is worth experimenting with outside, given rather dry conditions. I am succeeding in a very well-drained scree, and Charles Hollidge has a fine display in a slightly raised border close under a x *Cupressocyparis leylandii* hedge. Do raise seedlings and try your luck. *C. mirabile* is closely related and requires similar treatment. If you have purchased a plant having the desirable red flush to the leaves, and find that the colour does not appear in subsequent years, try giving it rather more shade. The colour is produced by fine red hairs on the leaf surface, and I suspect that these are shrivelled off if the sunlight becomes too intense. *C. intaminatum*, now raised to specific status, will also be happy if treated as *cilicium*.

Although known in cultivation since 1897, the wild habitat of *C. pseudibericum* was unknown until 1959. The bulb firm of van Tubergen received a single tuber in a batch believed to have been collected near Smyrna in Western Turkey. The plant was fertile and bred true, and its offspring can still be obtained today as 'Tubergen's form'. Only in 1959 was its true home discovered by Davis and Polunin: the Amanus Mountains. They reported plants in the peaty soil of a beech forest. When the Albury, Cheese and Watson expedition visited the area in 1966, Sidney Albury described its habitat as ''woodland glades, very English in character, and temperature''. With these clues we should be able to find outdoor sites which will satisfy the species. Again good drainage is probably the key as cold hardiness is not in doubt under glass.

3. Moderately tender

I include here *Cc. balearicum*, *creticum*, *graecum*, *libanoticum* and *repandum*, best grown in a pot under glass. I am prepared to let these species go down to 24°F as long as the frost only persists overnight. In more prolonged periods of frost, a move to more congenial conditions is advisable. Standard compost suits the first four plants. *Repandum*, as befits its predominantly woodland nature, appreciates leafmould in the compost (see above), and the thin texture of the leaves means that they are easily burned by hot sun, so a good deal of shade is desirable. In contrast *balearicum* and *creticum* benefit from full sun, which will encourage stocky, compact growth. With too little light and temperatures too high, they become tall and willowy, and develop a strong resemblance to their near relative *repandum*.

There is a plant in the trade described as *C. repandum album* of which I am very suspicious. I believe some plants to be *balearicum* x *repandum*: seedling offspring show divergent characteristics, with the most extreme resembling the two suspected parents. This is, nevertheless, a useful white flower for late April and May.

C. graecum is easy to grow, and can be difficult to flower, but its habitat and habit of growth give a few clues to its needs. Coming from arid areas, up to only, perhaps, 100 metres, the tubers produce thick, long, deeply questing roots, which are best accommodated in the deepest long-tom pot you can find.

Some authors recommend placing the pots in the hottest place that can be found (even the extreme of a high shelf in the greenhouse!) when the tubers are dormant. Baking the tubers encourages flowering, it is claimed, but in my experience this is only partly true. Consider those roots. If they are parched and shrivelled, why should the plants flower when growth commences in the autumn? They are surely far more likely to concentrate on making up the root loss. Following this line of reasoning I now keep the compost just moist during the dormant season, and flowering has been much better. My observations suggest a further vital factor. I have noticed that if the plant is allowed to become dry at the root when growth has commenced, any microscopic buds which may have formed will abort. All it takes to lose barely visible embryo buds is a single fine and sunny early autumn day, which under glass can be far hotter than one might imagine!

Reaching 1400 metres in the Lebanon Range, 40 miles N.E. of Beirut, *C. libanoticum* may be covered with snow in winter, but is less hardy than one might suspect from this. Although it will survive brief frosts, it is far happier if treated like a so-called florists *persicum*: kept above freezing, and fed gently. The leaves may grow to a very large size, but the tubers are small and quite slow-growing, so several will be needed to give a good display.

4. Non-hardy

Cc. africanum, cyprium, rohlfsianum, persicum(?). All do well in standard compost, and are almost invariably non-hardy (but see below). *C. africanum* is vigorous and fast growing, distinguished from *hederifolium* by its large leathery leaves bearing small horny teeth at the margins, non-creeping petioles, and strawberry-shaped tuber which roots all over the surface. If you have a mystery plant and cannot decide which it is, the recommended test is to leave it outside for the winter. If the plant dies, it was *africanum*!

Usually small in stature, *C. cyprium* can seem rather unimpressive when compared with some species, but it does flower in late October and November, when cyclamen flowers are a little scarce. The small flowers merit close inspection and are very sweetly scented too.

C. persicum is generally regarded as non-hardy, and this is usually the case, but I have at least one unrepresentative plant. It will withstand several days' exposure to 24°F before the leaf tips begin to show damage. In December 1981 (by oversight rather than intent) it was left in an unheated greenhouse among a mixed collection of alpine plants. It endured 14 days of unbroken frost, with overnight minima of 14°F. All of the leaves were killed, and the outer 2-3 mm. of the tuber became soft and spongy. Recovery took two years but was complete. This experience suggests that if plants are grown from seed collected at high altitudes, the development of strains much hardier than average should be possible.

My final plant, *C. rohlfsianum*, is probably the opposite extreme, and seems unlikely to survive exposure to frost. I have not cared to test it to the full as yet, but seedlings will presently be used to determine what it will tolerate. Discovered by Rohlfs and Stecker, it is confined to the limestone plateaux, hills and gulleys between Benghazi and Derna in Libya. Strangely it does not seem to crave limestone in cultivation, being happy in standard compost. I would suggest the same regime as for *C. graecum*. Never dry out completely and bring into growth as early as possible, by increasing water cautiously in, perhaps, mid-July so that the leaves are well developed before the weather begins to

cool. Finally never be caught out by that hot, drying autumn day, or in this case also the buds will abort.

Problems

Although cyclamen are generally trouble-free, one can encounter a few small problems, most of which are easily dealt with. The only significant pest, *Otiorhyncus sulcatus* the Vine Weevil, is easily recognised. It is of a dull, greyish-black colour with deeply ridged wing cases, and the antennae have a single joint about halfway along. Do not confuse it with the host of shiny black ground beetles, most of which are nocturnal insect predators. In late summer, weevils lay eggs which develop into characteristically C-shaped grubs which devour the roots of cyclamen (and sedums, sempervivums, primulas, rhododendrons). The only insecticide readily available to amateurs which gives a measure of control is hexachlorocyclohexane, commonly found labelled H.C.H. or B.H.C., which is mixed into the potting compost. But, beware of exceeding the recommended dosage; this will cause distortion of both flowers and buds. Simple preventative measures are quite as effective. Clear away accumulations of fallen leaves which can provide roosts for the adults, and do not discourage spiders, especially in the greenhouse; they are as happy to eat weevils as anything else! Finally, if all else fails, Vine Weevils make a very satisfying crunch when trodden on!

Botrytis may be encountered after a few still, humid autumn days, and usually arises where spent flowers fall on to the foliage and become soggy. Botrytis begins to grow, and once started it can spread into a healthy leaf, down the stem, and into the tuber. The simplest treatment is to pull off the leaf and stem complete, but constant vigilance and excellent ventilation will prevent the problem arising.

A bacterial rot, *Bacterium carotovorum*, may afflict tubers (especially those of *C. hederifolium*) which have been kept too hot and too wet during the summer. This is usually noticed when repotting in autumn as soft, pasty, dark brownish and unpleasantly smelly areas. Treatment consists of carving out the affected areas until sound tissue is reached, and liberally coating with flowers of sulphur, a potent sterilant. (I prefer this to the more sophisticated Benlate which seems to dry much more slowly). While the cut surfaces dry, any roots present should be kept viable by immersing in moist moss peat whilst keeping the tuber exposed. After about a week, the tuber is usually ready for repotting.

Please do not despair at this list; I have only rarely encountered trouble in over sixteen years of growing.

I conclude with a few further comments on hardiness. My generalisations above can be modified if appropriate steps are taken. Plants in a greenhouse can be given extra protection from cold by laying bubble polythene sheet over them. To one greenhouse I have attached roller blinds made from readily available polythene tarpaulin. In winter these give increased protection from cold, and in summer they help to keep temperatures at a more congenial level. A carefully chosen site will increase the hardiness of open-ground plants. If deeply planted in a well drained and sheltered place, *C. repandum* is far hardier than when grown in a pot. Many otherwise suspect species are worth trying in a dry area at the foot of a south-facing wall, and some people have had success with *Cc. africanum* and *graecum* in drystone walls and on steep slopes, especially under very moisture-hungry trees. The key to success is to raise plenty of plants from seed, and experiment. Good luck!

THE MINI LECTURES

1 — *Cyclamen purpurascens* in the wild

Graham Simpson

This is a summary of the talk given at Newman College on the 18th September 1988.

Cyclamen purpurascens, the most northerly of all the species, is somewhat neglected.

The probable reason for this is that most of the commercially available material is of what I believe to be a relatively poor form; small 'dumpy' flowers and sombre dark green leaves only slightly patterned. In the wild it is much more variable. It has quite an extended distribution from S.E. France through N.W. Italy (in large but isolated colonies), southern Switzerland, Austria, Czechoslovakia and Hungary. The species suffers from the fact that its peak flowering period is between the middle of July and the end of August. It grows in an area of Europe that becomes each year more readily accessible by road, and its flowering period coincides with the peak holiday period. Local inhabitants are voracious pickers of any plants that are in flower. *C. purpurascens* is basically a woodland plant, growing in woods which are wholly or predominantly comprised of beech trees (*Fagus sylvatica*). Not easy to spot except when it is in full flower which is why it is useful to know its commonly associated plants. These are helpful because they are all in their foliage easily distinguishable. They are *Helleboris niger* (the Christmas Rose), *Erica herbacea* (still better known as *Erica carnea*), *Primula vulgaris* and *Hepatica triloba*. If you can spot these there is a reasonable chance that *Cyclamen purpurascens* is present as well.

At what altitude do you find it? The answer is anything between 1500 ft. and 5000 ft. but the largest colonies seem to be around 3000 ft.

In the wild it has an extraordinary root system. The tubers are usually found to be 12 to 18 inches below ground level and well embedded amongst tree roots. It produces thickish stems known as 'floral trunks' which themselves divide and produce swellings which eventually become separate tubers. Apart from this, older tubers become very misshapen with large protuberances which like *C. rohlfsianum* can eventually break off and form new tubers. This does not appear to happen in cultivation and is almost certainly not self-induced. In all probability it is due entirely to external forces such as a growing and ever-increasing tree root which is pressing itself on to the top of the tuber. Does this occur with other species? I do not know but it is intriguing that *C. purpurascens* should seem to be attempting a form of vegetative propagation.

Many areas in which *C. purpurascens* grows are easily accessible to holiday makers on package tours. Why not make an attempt to see all this for yourselves?

2 — Cyclamen in the Saronic Isles

Melvyn Jope

The account of the Society tour to Turkey has perhaps made some ponder

the possibility of looking for cyclamen growing in the wild while on holiday. One way of achieving this while taking into account the holiday needs of the rest of the family is to take a package holiday in the Greek Islands.

I have had the good fortune to visit the islands of Aegina, Poros, Hydra and Spetse on a number of occasions during September and October — half term is an ideal time to see cyclamen. Of the islands mentioned Poros is the closest to the mainland. It is only a few hundred yards from the Argolid peninsula consequently it is an ideal place from which to visit some of the classical sites at Epidavros and Mycenae.

Cyclamen plants, particularly *Cyclamen graecum*, will be found growing all over the islands but to find them in quantity you may find the following suggestions helpful.

Cyclamen graecum are far more numerous than *Cyclamen hederifolium* but the two species can be found growing together, usually in shaded areas in pine woods. Try to observe the places to be searched from a vantage point and pick out the area where the tree cover is thickest. You are more likely to find plants growing in larger numbers in such places than in open barren areas.

It is possible to find plants in September and October from which seed can be collected. I have found that churchyards are one of the most promising places to get seed pods still intact late in the year. This may be because the churchyard walls help to stop the seed pods from being dispersed by the wind and prevent tortoises from getting to the plants and eating the seed pods.

Places of historic interest are nearly always good sites for finding cyclamen. I have also found that the raised pathways around lemon groves are worth examining, presumably the good drainage and regular irrigation are an encouragement to the plants.

COLLECTORS NUMBERS — PART SIX

Gay Nightingale

21st October was a beautiful autumn day at Kew. Early morning mist gave way to sunshine which felt hot on my back. To one side of the path geese were grazing peacefully, undisturbed by visitors to the Gardens. In the background, flower beds were planted with domes of *Anthemis cupaniana*, which should be covered with white daisies next spring, and red-gold trees showed no trace of the Great Storm of a year ago. I spent rather too long browsing in the Kew shop, which is full of fascinating items like lavender peg dolls, flower-scented soaps and new books, but nevertheless I recommend you to do likewise and have a nice day at Kew.

Later, botanist Pat Halliday kindly allowed me temporarily to share her *Primulaceae* domain, where I found the following notes:

Collectors'	*species*		*location, country of origin and comments*
A. and T. Baytop ATB 33,902	*graecum*	8.10.75	Kemer, Turkey — specimens show flowers, and what appear to be roots from floral trunks.

ISTE 27,326	*pseudibericum*	17.3.74	Flowering — locality Adana, Turkey.
O. Sonderhousen			
O.S. 743	*pseudibericum*	30.3.81	S. of Feke, Turkey, on an old cemetery in grass and rocks under *Pinus*. Soil pH 7.65, alt. 610 m. (Note: whatever was in the sml. white envelope had been removed).
Albury, Cheese and Watson			
ACW 664	*pseudibericum*	1.4.66	Hatay, S.E. of Dortyol, Turkey — fls. pale pink to rich dark pink on lower foothills, rocky slopes, deciduous woods, common, scattered. Local name: Kus-Kus. Alt. 500 m.
ACW 1438	*pseudibericum*	Dec. 1966	Turkey.
ACW 1439	*pseudibericum*		Turkey.
Davis and Polunin			
D. 26,092	*pseudibericum*	18.4.56	Adana, Turkey, 1300 m. Edge of "fagetum" on metamorphic substratum (leaves more repandate; fls. broader than form growing at lower altitude).
D. 26,117	*pseudibericum*	18.4.56	Adana, Turkey, 1000 m. Fls. magenta carmine with deep purple blotch.
B. Mathew and A. J. Tomlinson			
M & T 4146	*pseudibericum*	14.5.65	Above Haruniye, Turkey. In beech and hornbeam scrub under rocks. Variable leaf marbling.
M. J. E. Coode and B. M. G. Jones			
No number	*pseudibericum*	May 1965	Dortyol, Turkey, on forest road, limestone rocks. Fls. dark to pale pink with darker centre. (Note with specimen).

Still no sign of the missing CMW 3824 and 3532, but there are more numbers to come. Those following this series will note that some of these numbers have been repeated, as more information has been found which should be useful as a guide to cultivation requirements.

CYCLAMEN INTAMINATUM: A REPLY

C. A. Hollidge

I feel obliged to respond to the suggestion made by Mr. Sonderhousen in the June '88 Journal that E. K. Balls made a mistake with the place name for his collection of EKB 669a.

I propose to deal one by one with the points made by Mr. Sonderhousen.

Quote: "*C. intaminatum* is only found in a few other localities in N. W. Turkey — always just west of the town of Esehir (sic)".

Comment: In addition, the species has been found near Akseki and at Honaz Dag (S. E. of Denizli), very much further south than the above locations.

Quote: "There is in the area of the cilician Gate absolutely no name which could be mistaken for Burujek".

Comment: It is well-known that place names in Turkey appear to be subject to change (admitted by Mr. Sonderhousen).

Quote: "Nobody has ever found it in this area".

Comment: The fact that *C. intaminatum* is apparently no longer found in this area does not prove that it did not exist there 54 years ago. Small locations of cyclamen species do, in the experience of other members, disappear due to road works or other improvements of local amenities, quite apart from any ecological changes.

Quote: "If the number just before or/and behind EKB 669a is not from the Cicilian Gate".

Comment: Balls' original visit to this area was in April 1934, when he collected numbers from 668 to 696 including 669 (which was not a cyclamen). His second visit was in June, when his collection numbers were in the 1200s interspersed with 630a, 682a, 686a, 793a, 846a. It must be admitted that 669a does not appear in the collection records examined. However, it must have been recorded elsewhere in Balls' records to justify the general acceptance by Kew authorities of the date and locality of EKB 669a, i.e., on June 6 at Burujek, at 4000 ft. in the shade of *Abies cilicica*. Around this date Balls spent some 10 days in the Cilician Gate area. The name Burujek appears again and again, in all no less than nine times, not only in the itinerary but also in the collection records.

In an attempt to pinpoint the location of Burujek I have extracted references from Balls' notes as follows:

"Burujek lies on the hillside across a little valley from the main road through the Taurus".

"Burujek: Between the village of Pozanti and the Cilician Gate".

"Track climbing up from Burujek to the low crest of the Taurus here on Gilbe Kur".

"Namrun: west of Burujek".

It is on record that, later in the same decade, Davis and Hedge collected *C. cilicium* at Burujek.

Finally — Mr. Balls' visit to Turkey in 1934 lasted from March 18 to the end of September. Anyone who has examined the collection of his records must be impressed by the thoroughness with which he crossed and re-crossed the country and the meticulous and detailed nature of his records, which included many place names of small localities which would require a very large scale map in order to identify.

Some day more will be written about Edward Kent Balls and his contribution to plant hunting. All in all he was a remarkable man, and in my view did not receive the recognition which he undoubtedly deserved.

The Clincher

Since writing the foregoing I have discovered the village of Burujek on an old map of the area. It was situated at the end of a short side road on the east side of the main road through the Cilician Gate, as stated earlier about half way between Pozanti and the summit of the Pass. The construction of the motorway which runs parallel to the old road has almost certainly overrun the site of the village.

CYCLAMEN INTAMINATUM: A SECOND REPLY

Jill White

Ole Sonderhousen writes in the Cyclamen Society's Journal Vol. XII June 88, page 16, on the location of *Cyclamen intaminatum*.

There certainly was a village called Burujik, spelt Burucek on my map. The letter C is pronounced in Turkish as a J (as in jam), hence the spelling with a J. Burucek is 40 km. to the north of Namrun and a few km. to the south of Pozante, on the Cilician Gates road, which is now a motorway, so the actual village of Burucek most probably was moved to make way for the motorway.

E. K. Balls collected many plants in the Burucek area, and so have other collectors, P. H. Davis, Akbas, Eig & Zohary, Buttler & Uzunglu, T. Baytop, and others. As for *Cyclamen intaminatum* being found there, I would like to query that.

In Gardeners Chronicle E. K. Balls states, 'A form of *Cyclamen cilicium*, which Dr. Gourlay and I collected both at Namrun B185 and at Burujik B669a flowered last winter most persistently from November to March. Its rounded pink flowers in constant succession drew attention to the plant, as being of exceptional value for winter display, especially as it flowered so freely out of doors. Throughout the Taurus range this plant wedges its tubers into limestone outcrops or hides under the shade of dense shrubs.'

Would *Cyclamen intaminatum* or *C. cilicium* flower most persistently from November to March? Do they have pink *rounded* flowers? *C. intaminatum* certainly doesn't. It sounds as if E.K.B. was describing a *C. coum*; as the supposedly 669a *C. intaminatum* was collected out of flower in June, could it possibly have been a *C. coum*? Could a tuber from Kutahya, where E.K.B. collected earlier on, have got mixed with the tubers from Burucek? *C. intaminatum* has never been found in the Burucek area at any other time.

CULTIVAR NAMES — YES OR NO?

Graham Simpson

These comments are prompted by some of the observations made by Christopher Grey-Wilson in the recently published Kew monograph *The Genus Cyclamen*.

In his initial comment on this topic he says ''From a horticultural point of view it is, of course, important to be able to identify particular forms, whether they have distinctive leaf-markings or flower colour; and for such variants the cultivar is the correct unit of classification. In cyclamen with the exception of *C. persicum* there are relatively few cultivar names.''

Cultivar names have long been used for the large-flowered forms of *C. persicum* as sold by florists, and, more recently on the continent, for forms of *C. hederifolium*. Why not, where appropriate, for other species?

Are cultivar names a good thing or a bad thing?

First of all, we have to realise that botanists and gardeners have differing objectives. The botanist wants to find a neat way of classifying plants by reference to their purely botanical characteristics, ignoring such things as differences in flower colour or leaf patterns. The gardener on the other hand is interested in forms which show an unusual colour in the flowers or have distinctive leaf patterns. The gardener, when seeking such of these forms as come true from seed, needs some sort of name by which to identify what he is looking for. The answer ought to be the 'cultivar name', but if this is to be of value it needs to be used with extreme care. It should, most importantly, be confined to forms which come true, or almost true, from seed; and which are distinct from all previously named cultivars.

Of course, nothing in life is as straightforward as we may have liked it to be. In cyclamen for example there is a ''grey area'' when it comes to allocating cultivar names. With *C. coum*, for example, there is the very attractive 'Pewter Group'. All very distinct, but variable in the degree of their 'pewtering''.

There are for example, several unusual forms of *C. coum* (some of them, such as 'Nymans' and 'Tilebarn Elizabeth', already given cultivar names) which fit easily into this category. (As to the latter see the Bulletin of The Alpine Garden Society, Vol. 55 No. 4 — December 1987 — at page 350.)

There is also a brilliantly-marked leaf form of *C. cyprium* (*C. cyprium E.S.*) which I found to my surprise comes true from seed. I was originally under the impression that 'E.S.' meant extra-silvery, but according to Grey-Wilson it is in fact named after its raiser, Elizabeth Strangman, in which case it could more appropriately be described as *C. cyprium* 'Elizabeth Strangman'. In addition there are the silver-leaved forms of *C. purpurascens* from the Lake Garda area of Italy, the distinctive purple-flowered form of *C. persicum* 'Tilebarn Karpathos' from the island of Karpathos, and the pink-flowered form of *C. pseudibericum* (as illustrated in the Kew Monograph.) For all of these, cultivar names would seem to be not inappropriate.

On the continent ''strains'' of *C. hederifolium* have for quite a long time been marketed under the names 'Rosenteppich' and 'Perlenteppich' and, more recently, in the United Kingdom (and possibly the same thing) as 'White Pearls' and 'Rose Pearls'. Does anyone with a knowledge of *C. hederifolium* know what, if any, special characteristics these ''strains'' are supposed to have? I

have seedlings of some of them but they have not yet reached flowering size so I am unable to reach a judgement.

As regards *C. hederifolium* we also have 'Bowles Apollo' and, more recently (See Cyclamen Society Journal for June 1988 – Vol. XII No. 1 at p.14) 'Ellen Corker'. The latter, at one stage of its development, has a mouth colouration of a very distinctive salmon-pink. As to 'Bowles Apollo' I am not quite sure what to make of it. Such plants as are around under this name are fairly distinctive but variable. None is as distinctive (if my memory serves me correctly) as the plant shown to me about 30 years ago by the late Gerard Parker.

In relation to *C. coum*, which I have already mentioned, there are certainly some distinctive forms deserving of cultivar status. Grey-Wilson reminds us that (as a seeming justification for the Society's Expeditions to Turkey) "we are over-familiar with the limited range of variants at present in cultivation, but we suffer a lack of knowledge of the degree of variability in the wild".

One of Grey-Wilson's intriguing remarks, when dealing with *C. purpurascens*, is in relation to *'C. fatrense'*. He says that "particularly good forms may warrant cultivar names". Can anyone tell me what "good forms" are around? Such plants as I have, and they are quite attractive, are all very similar. They are, indeed virtually indistinguishable to me from plain-leaved forms of *C. purpurascens* from Northern Jugoslavia.

It is for members to consider whether they want cultivar names or not; or whether we have got to the stage where we must have them whether we like them or not. One thing, above all, you have to remember is that if you start off down this road you must take care. We do not, I suggest, want to get into the difficulties that have, in my view, affected other genera, such as *Pleione*, *Rhodohypoxis*, and *Sempervivum*.

BOOK REVIEW

R. H. Bailey

CYCLAMEN IN TRADE (Traffic Rapport Nr. 5)
Drs. M. van der Plas-Haarsma. 57pp. Traffic (Nederland), Zeist. 1987.

Cyclamen are listed in Appendix II of the Convention on International Trade in Endangered Species (C.I.T.E.S.) not because the entire genus is at risk but because trade in collected tubers was, and is, extensive. Figures presented in this report make it clear that for over a decade after C.I.T.E.S. international trade increased, substantially. Since 1985, however, trade by countries of the European Economic Community (E.E.C.) has decreased following Community legislation.

The report highlights trade between Turkey and the Netherlands. It is almost unbelievable that at its peak (in 1984) 3,764,715 tubers reached the Netherlands from Turkey – I wonder who counted them! (In the same year Turkey sold another $1\frac{1}{4}$ million elsewhere.) In 1985 E.E.C. legislation reduced imports by the Netherlands to around 960,000, but this figure rose to 1,640,000 in 1986. This report is a useful source of such statistics – but must be read carefully as some tables present conflicting figures.

A concise history of trade in cyclamen is included (I was surprised to learn that bulbs have been traded between Turkey and the Netherlands for some 400 years) together with a survey of protective legislation in countries where cyclamen grow wild. A small section treats trade in other bulbous plants from Turkey and the report includes recommendations for the regulation and monitoring of trade in wild cyclamen.

This is a document intended for the specialist. Nonetheless it is a valuable statement of the present position giving a realistic warning that trade in cyclamen needs careful and constructive reevaluation if it is to survive as a source of income to exporting countries and pleasure to those who benefit from those exports. Those in the horticultural trade could do worse than read it with their Christmas port.

CYCLAMEN TUBERS — PART 9

F. W. Buglass

(Note: This is a reprint of the article on pages 18, 19, 20 of Vol. XII No. 1 to correct detail and omissions.)

Cyclamen repandum, repandum subspecies *rhodense, repandum* subspecies *peloponnesiacum, balearicum*, and *creticum.*

The more I study these species the more I am convinced that they can be lumped together. The tubers of these conform so closely to *repandum*, that I feel they are related. It would be very difficult to distinguish one tuber from another, age for age. However the tubers do tend to change to a certain extent with age.

Cyclamen cyprium

This, the last of the autumn-flowering species to be described, has the strange habit of producing a tuft of roots at some point on the lower periphery, sometimes extending up the tuber as in figure 2, and occasionally producing two tufts as in figure 3. The root plate and growing points are not as clearly marked as on other species. Thus if there is any uncertainty as to which is the top of the tuber then plant it on its side. The type of ground and the position of planting may well decide the position of the roots.

Tuber characteristics

I will attempt, as soon as I have sufficient evidence, to describe differences in tubers at various ages and grown under different conditions. For example, do *mirabile* tubers grown from seed have the fissures that the wild tubers have? (see Vol. VII No. 1 of June 1983). The colour of tubers may also be a factor: does this change with age? It is hoped that this will help members with identification.

cyprium

balearicum

cms.

SCALE

repandum

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