



Cyclamen

vol 38

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

The Society's web site may be visited at www.cyclamen.org For the Society's Internet discussion group Cyclamen-L, visit <http://groups.yahoo.com/group/Cyclamen-L>

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contents

News	46
Miscellany	48
The name behind <i>Cyclamen</i> ...Boissier – <i>Martyn Denney</i>	53
Fasciation in <i>C. cilicium</i> – <i>Mike Brown</i>	56
<i>Cyclamen repandum</i> on Corfu – <i>Dirk Kapteyn den Boumeester</i>	59
<i>Cyclamen libanoticum</i> , a species that knows its identity! – <i>Alastair Culham</i> and <i>Kálmán Könyves</i>	61
Lebanon field study, 2014: <i>C. persicum</i> and <i>C. coum</i> – <i>Richard Bailey</i> , <i>Martyn Denney</i> and <i>Keith Fry</i>	64
The <i>C. graecum</i> group – how many species? – <i>Alastair Culham</i> and <i>Kálmán Könyves</i>	70
Show Business	77
<i>Cyclamen</i> as bedding plants – <i>Richard Bailey</i>	85
The <i>Cyclamen</i> Society Accounts – <i>Keith Fry</i>	86
Seed Distribution	87
Minutes of the AGM of The <i>Cyclamen</i> Society	88
The Society's Officers	90
Index to Volume 38	91

News

New 'Species' leaflet

With this *Journal* you will have received a copy of the new leaflet which the Society has produced to replace the old black and white 'species' leaflet. Called *Cyclamen for Garden & Greenhouse, A Gardener's Guide* and with text written by our President, Vic Aspland, this full colour leaflet will be used for publicity purposes and distributed free of charge.

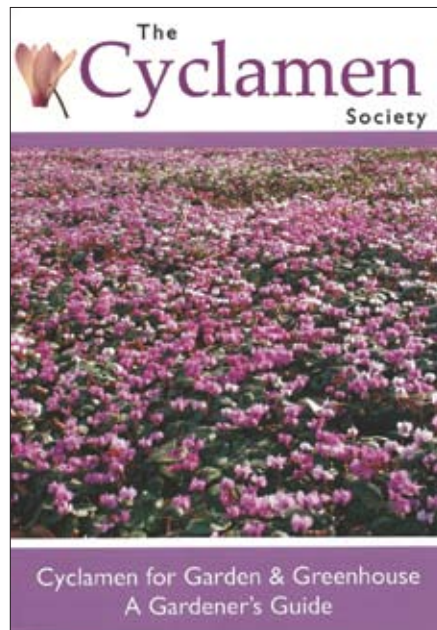
Writing about cultivation techniques and assigning plants to greenhouse or garden according to hardiness is fraught with danger due to the differing climates in which gardeners carry on their hobby. The leaflet is principally aimed at the United Kingdom, but even dealing with this limited area it has been a challenge to find suitable common guidance.

As a cyclamen enthusiast you will probably find nothing new in this leaflet and we would therefore ask you to pass it on to a friend who might be encouraged to start growing cyclamen (and to join the Society).

Anyone who gives lectures about cyclamen can obtain a supply of this leaflet and the Membership leaflet from the Secretary – email: secretary@cyclamen.org.

Midlands Group

At the Group meeting held on 14 September there were two themes. Ian Nex gave his personal experience of growing *Cyclamen graecum* and brought many specimens of his plants for demonstration. Next Vic Aspland covered summer and autumn care of cyclamen, showing the approach used by Mac McManus (a stalwart of the Group) and his own techniques, with an emphasis on *C. graecum* and *C. mirabile*, which he has found to need quite different conditions.



The next meeting of the Group will be on Sunday 1 March 2015, when Paul Whitlock will talk on *C. purpurascens* in the Lake Garda area. It will be held at the usual venue: Norton Community Centre (DY8 3AP) from 11am (further directions or details from Vic on [redacted]).

Cyclamen Society Conference 2014

Vic Aspland writes: This year's conference contained elements of a marathon and an endurance trial, for Martyn Denney played a starring role in both lectures. He began with a description of the 2013 Field Study in Georgia of *Cyclamen colchicum*. In the absence of roads in some areas, the travelling could be described as 'challenging', with even a six-wheel-drive truck having to winch itself up on occasion. Martyn described the travails with great sang-froid, and described the interesting differences in habitat, ranging from open alpine meadows to the base of cliffs. DNA studies at Reading University on the leaf samples brought back have demonstrated that *C. colchicum* is genetically distinct from *C. purpurascens*, so the study has resolved one of the issues that has been a matter of debate for many years.

After a brief interlude, Martyn did a double-act with Richard Bailey, with occasional interjections from Keith Fry. They described the 2014 Field Study in the Lebanon to research *C. libanoticum*. The talk debunked the recent rumours that this species was reduced to just two wild populations; it was found in 21, all centred on the massif called Jabal Moussa. In this area, travel was much more civilised, though on a couple of days a good deal of strenuous walking was involved (the audience was quite weary towards the end, having learned what was involved from some very graphic Google Maps!). It was interesting to see that *C. libanoticum* is far more variable in both leaf and flower than the material in cultivation would suggest.

2015 Conference

The 2015 Conference including a competitive show will take place on Sunday 27 September 2015 at the Birmingham Botanical Gardens. Details will appear in the June issue of the *Journal*.

Research News

As this is written in early November, a team is due to leave next week to continue the research into *Cyclamen hederifolium* in Greece. They will be travelling across the mainland of northern Greece and down through the Peloponnese in order to further assess the range and boundaries of *C. hederifolium* subsp. *hederifolium* and *C. hederifolium* subsp. *crassifolium*.

The Research Sub-Committee has started a taxonomic study of *Cyclamen coum*. The aim of this is to try to harmonise the separation into species (*C. abchasicum*, *C. adzharicum*, *C. circassicum*, *C. coum*, *C. kusnetzovii* and *C. vernum* Sweet) usually adopted in Russia and eastern European countries, with the single species referred to in the west. This will be done through morphological observations in the field and DNA analysis of collected samples in the laboratory. Phase one of this project will see a team visiting Georgia in spring 2015 to look at the species there.

Cyclamen intaminatum in SW Turkey

In the June 2014 *Journal* we reported on new populations of *Cyclamen intaminatum* found by Bob and Rannveig Wallis between Uşak (Uşak province) and Salihli (Manisa province) in southwest Turkey. Bob has recently been in contact to say that these populations have actually turned out to be *C. mirabile*.

Honorary Memberships 2014

At the Annual General Meeting, the members endorsed the recommendation of the Committee that two Honorary Memberships should be awarded. This is not done lightly, but recognises sterling work done for the Society for a considerable time.

The first recipient was Martyn Denney, to recognise his unstinting work for the Society in many areas. He has been Chairman of the Research Sub-Committee since 1999. He took the post of Secretary in 2002 and continues to hold that office. In 2012 he took on officially the additional post of Editor. He is also a regular contributor of articles to the *Journal* and a member of a number of Field Study teams. In addition he designed and built the Society's website (Ed: though this now needs a complete revision!). His contribution to the Society is outstanding and the award well-deserved.

Chris Clennett became Editor in early 2001, when the 'pinkie' (as some members called it, due to the distinctive cover) had coloured illustrations only in the centre pages. By 2002, colour had appeared elsewhere, and in 2003 he saw through the transition of the *Journal* to its current form, with colour throughout and on the cover too. He continued in post until 2011 in spite of having a very busy professional life at Kew. He has been Chairman of the Publications Sub-Committee since 2009, and edited the Society publication *The Cyclamen of Greece*.

Miscellany

Cyclamen rohlfsianum f. *album*

Members may be interested to know that the sole known plant of *Cyclamen rohlfsianum* f. *album* is alive and well and has had five flowers this year. There is a possibility that for the first time it may have set seed – but there are many months to go before we will know for sure.

Love cyclamen

Jan Bravenboer certainly loves his cyclamen as evidenced by the large number he brings to sell at our shows at RHS Wisley. Jan has written to say that he thinks that this tuber that appeared amongst his seedlings is trying to tell him something!



Jan Bravenboer's heart-shaped cyclamen.
Photograph by Jan Bavenboer

A gift of a plant that came with a puzzle

Melvyn Jope writes: When a friend gave me a cyclamen during the spring of 2014, I was asked to guess the species. As the plant had mature seed pods I guessed that it was a diminutive form of *C. hederifolium* but I was wrong. The leaves were lanceolate – not an obvious clue to the fact that it was *C. intaminatum*. Had it been in flower I would have known the species but even those were unlike any that I had previously seen. The fimbriate petals have prompted the person that raised it to suggest the name 'Shaggy'.

The plant was noticed among a group of 'ordinary' seedlings and has since produced offspring with the same unusual characteristics.



C. rohlfsianum f. *album*. Photograph by Melvyn Jope

Flamboyant *C. hederifolium*

Graeme Butler writes: I raised this unusual fasciated plant from miscellaneous seed collected on the nursery during 2010, which was sown fresh. The first flowers were produced in 2012, sporting twin buds on a single stem which, when fully open, revealed a variegated effect. In 2013, two stems were produced, again showing twin buds on each.



C. intaminatum 'Shaggy'. Photograph by Melvyn Jope



Graeme Butler's flamboyant *C. hederifolium*. Photograph by Graeme Butler

The plant is now in its fourth year and has produced four stems, all with the usual twin buds, but it has also produced for the first time, three shorter stems containing a single bud on each. All flowers produced on this plant show the same striped effect, as seen in the photo.

Il sentiero dei ciclamini

Martyn Denney writes: The Alpi Maritimi (or Maritime Alps) may not be the most obvious place to look for cyclamen, but in the Valle Maira which heads northwest away from Cuneo in northwest Italy, there is a relict population of *Cyclamen purpurascens*. This is probably the most westerly population in Italy, but there are populations further west in the Haut Savoie of France around the Lac d'Annecy and the Massif des Bauges.



C. purpurascens above Caricatori in the Valle Maira



Path signs on 'Il sentiero dei ciclamini'. Photographs by Martyn Denney

The communities of Valle Maira make efforts to promote tourism in their valley both independently and under the auspices of the Province of Cuneo. As part of this effort they have created a number of walks including 'The Cyclamen Didactic Pathway' in the mountains



'Il sentiero dei ciclamini' map cover

behind the village of Macra for which the community have published a map *Il sentiero deo ciclamini*. This 2 hour walk climbs 200 m (656 ft) from Macra past the villages of Langra and Caricatori before heading back down to the valley floor via Camoglieres. There is even a convenient pensione 'Locanda dei Ciclamini' with comfortable rooms and excellent food in the centre of Macra where advice can be sought about both the walk and the location of the cyclamen.

Cyclamen purpurascens is to be found just beyond and above the hamlet of Caricatori on northwest to north-northwest facing 45° slopes beside the path. At the time of my visit in June this year the plants were not of course in flower and the leaves seemed to be unremarkable. A relatively small, sparse population.

Herbarium drawing of *C. colchicum* CSE13043

Immy Smith is a Visiting Artist at the herbarium of the University of Reading. She happened to be in the herbarium when Sue Mott, the Deputy Curator, was working on the *Cyclamen colchicum* herbarium sheets from the Society's 2013 field study in Georgia.



C. colchicum site 13/09 on the Jvari Pass, Georgia. Photographs by Martyn Denney



C. colchicum CSE13043 herbarium specimen photographed after 24 hours in the press

Immy writes: "Botanical artists generally resurrect the living plant in their artwork, but I am not a botanical artist... I'm more interested in the meticulous artistry of specimen preparation and the stories that travel back with each item. The process and narrative of the pressed specimens themselves is as fascinating as any plant. So that is why I draw specimens with labels, dirt and all!"

I'm interested in transitions and narratives associated with specimens. Botanical specimens are seen as dry and boring by some people; yet each one carries a wealth of potential botanical information and its own narrative as to how it got to the herbarium. The arrangement of the specimens on the herbarium sheet is undertaken with great care. Sue goes to painstaking lengths to ensure each is preserved with attention to both aesthetics and scientific needs; parts that are in best condition for possible further work (DNA analysis, for



Pencil drawing of *C. colchicum* CSE13043 herbarium specimen by Immy Smith. Reproduced by permission of the artist

example) are not glued. Each is secured to the sheet, yet is still available for more-scientific study. The fact that this specimen was collected in Georgia is also interesting to me because, despite the geopolitics of the region it came from, it still carried all its botanical information to a new location... and thus transcends borders in its own way. I chose a specimen with marks on a leaf, and with leaves in various colours indicating varying states. Its drawn in Polychromos pencils on a 24 cm (9 in) diameter Whatman laboratory filter paper." Until 8 November, Immy's drawing was exhibited at The Pencil Museum in Keswick.

Immy's drawing is of herbarium specimen CSE13043 which was collected on 24 August 2013 at site 13/09 at 1,928 m (6,325 ft) on the Jvari Pass, above the Janauli Valley and close to the border between Samegrelo and Racha-Lechkhumi, Georgia. Here, a small outcrop of limestone in short alpine turf hosts a confined, small population of up to 100 plants of *Cyclamen colchicum*. The plants grow in crevices and pockets of black humic loam on a very exposed 45° rock-face with an east-northeast aspect. The soil pH is 7.3. There is clear evidence of significant regeneration – surprising considering the exposed and limited nature of the site.

The principal companion plants are *Woronowia speciosa*, *Gentiana septemfida*, *Alchemilla* sp., and *Asplenium trichomanes*. Nearby in the alpine turf there are *Daphne albowiana* and *Crocus vallicola*.

Open edition 30.5 x 30.5 cm (12 x 12 in) signed giclee prints on archival cotton paper are available for Immy's illustration, priced £30 + postage by UK Royal Mail. Contact Immy Smith at imagingscience@gmail.com for details. More information about the artist can be found at www.immysmith.com.

Cyclamen hederifolium CSE08009

Melvyn Jope sent a photograph of the flowers of *C. hederifolium* CSE08009 and said that they are lovely and fragrant. It's a pity we can't embed the smell in the pages of the *Journal*. This plant was collected during a *Cyclamen* Society field study, between Anno Volimes and Skinaria near the northern tip of the island of Zakynthos on 10 November 2008.



C. hederifolium CSE08009. Photograph by Melvyn Jope

Giant *C. graecum* tubers – update

In the June *Journal* we featured pictures of giant *Cyclamen graecum* tubers in Stavroula Ventouri's garden at Paralio Astros in the Peloponnese. Stavroula has been kind enough to send some photographs of them in flower this autumn and measurements of the largest.

Weight	Circumference	Depth
17.5kg (38.6lbs)	99cm (39.0in)	23cm (9.1in)
12.4kg (27.3lbs)	86cm (33.9in)	17cm (6.7in)
5.7kg (12.6lbs)	60cm (23.6in)	12cm (4.7in)
4.5kg (9.9lbs)	58cm (22.8in)	11.5cm (4.5in)



Stavroula's rescued *C. graecum*. Photographs by Stavroula Ventouri



The largest tuber in flower with leaves emerging



The third largest tuber

The name behind *Cyclamen* ... Boissier

Martyn Denney

Pierre Edmond Boissier described three cyclamen species, each in collaboration with a different fellow botanist – *Cyclamen cilicium* with Theodor Heinrich Hermann von Heldreich in 1849; *C. africanum* with George François Reuter in 1852; and *C. elegans* with Friedrich Alexander Buhse in 1860.

Edmond Boissier was born on 25 May 1810 in Geneva, Switzerland. He was the son of Jacques Boissier and Lucile Butini. His mother was the daughter of Pierre Butini, a well-known physician and naturalist from Geneva, and hikes in the Jura and Alps with his mother and grandfather encouraged Edmond's interest in exploration and the natural world. As a young boy, his schooling at home by J L Vallette was strict and classical, with lessons delivered in Italian and Latin. For his later education he attended an arts course



Edmond Boissier. Drawing and engraving by R Piguet from *Flora Orientalis* 1875. Reproduced by permission of the Linnean Society of London

at the Academy of Geneva, and then sciences which included botany delivered by Augustin Pyramus de Candolle (whose cyclamen claim to fame was the description of the putative *C. linearifolium*). At the age of 21 he moved to

Paris to continue his studies under Jacques Gay and Philip Barker Webb.

It might be assumed from the collaborative nature of his descriptions that Boissier wasn't a field botanist and that his work was based upon the collections of others. This was far from the truth. Philip Barker Webb had travelled widely in Spain and encouraged the young Boissier to do so. Following a six month period spent in Italy with his mother and his sister Valérie in 1833 and then the death of his mother in 1836, Edmond spent much of 1837 in Spain and returned there in later years. It was to be the first of many journeys that continued almost annually until his death. He was a wealthy man and had the resources to fund his own field work and to sponsor others.

In Geneva he had met Georges François Reuter a printer's engraver who had been born in Paris on 30 November 1805, but whose family was originally from Geneva. Reuter was an amateur botanist who had been appointed by Augustin Pyramus de Candolle as curator of the Candolle herbarium. They became good friends and Boissier sponsored Reuter's 1841 trip to Spain and on his return, Reuter moved to Boissier's herbarium at Chambésy on Lake Geneva. L'Herbarium Boissier contained all the collections Edmond had made on his field studies and the work cataloguing the specimens must have been immense.

In June 1840 Edmond married his first cousin Lucile Butini. She joined her husband on his travels throughout the 1840s, travelling to Greece, Anatolia, the Levant, Jordan and Egypt between 1842 and 1846, and Algeria, Tangier and southern Spain in 1849. On this last trip, Edmond and Lucile were accompanied by Georges Reuter and it is almost certain that this was when they collected *Cyclamen africanum*. They described

it in 1852, saying that it grew in the shaded hills of Algeria and flowered from October to December. Their diagnosis explains that it differs from *C. neapolitanum* Tenore, *C. hederifolium* Aiton and *C. graecum* in having smaller leathery, ovate more-angular leaves that often had no pattern. There were also differences in the calyx and corolla lobes.

Unfortunately, after leaving North Africa and arriving in Granada in southern Spain, Lucile caught typhoid and died. Edmond grieved for many years and later named *Chionodoxa luciliae* and *Omphalodes luciliae* after her – the blue of their flowers being said to match her eyes. They had had a daughter Caroline in 1847, and she later collected for her father and went on to marry the naturalist William Barbey.

Boissier's financial resources allowed him to undertake what projects he wished and in the early 1840s he embarked on the publication of the 19-part *Diagnoses Plantarum Orientalium Novarum* to describe new species discovered by himself and other botanists. Amongst these was Theodor von Heldreich, a German botanist who had been born in Dresden in March 1822. Heldreich's botanical education had started in Montpellier under Professor Dunal, but was completed in Geneva and he succeeded Reuter as curator of the Candolle herbarium. Heldreich travelled widely through the Middle East, visiting Turkey on at least six occasions between 1845 and 1852 before settling in Greece where he married and lived until his death in Athens in 1902. During one of Heldreich's Turkish journeys (probably in 1845, 1846 or 1847) he collected *Cyclamen cilicium* from "Gülek Boghas (Pylæ Ciliciæ)" – near the village of Gülek in the Cilician Gates Pass north of Tarsus. Boissier described the specimen in 1849 saying that it grew in the clefts of rocks and that the flowers emerge at the end of September.

With the encouragement of other botanists such as Hooker, Boissier embarked on a larger project to document the flora of the Middle and Near East and included adjacent areas with similar flora such as mainland Greece, the Greek Islands, the Crimea, Transcaucasia and Egypt. This great work, *Flora Orientalis*, was published in parts beginning in 1867 and ending in 1884 the year before Edmond Boissier died at Valeyres-sous-Rances on 25 September 1885.

In the course of the preparation of his magnum opus, Edmond Boissier travelled and collected widely and again collaborated with other botanists. One of these was Friedrich Buhse. Buhse was a Baltic botanist and plant collector who was born in November 1821 in Riga, Latvia and received his botanical education in Dorpat, Estonia. From February 1847 to June 1849, Buhse had travelled through Transcaucasia and what is now northern Iran observing the flora and collecting specimens. In Riga he lacked the resources to identify his specimens and Boissier travelled to St Petersburg to assist him. Unfortunately he was unable to stay long enough to complete the work but the collaboration was gratefully received by Buhse who learned a lot from the more-experienced botanist. When Buhse's descriptions were finally published in 1860, the paper was co-authored by the two of them.

Buhse had collected *Cyclamen elegans* in the forests of Asterabad in northeast Iran between 19 and 31 January 1849. In their diagnosis, Boissier and Buhse noted that it had very close affinities with *C. coum* but that there were specific differences. In *C. elegans* the flowers were larger with oblong or ovate-rounded corolla lobes, and the calyx lobes were longer and more tapered. The leaves were also more ovate than those of *C. coum*.

Although Boissier's published works were held in high regard, perhaps his greatest

legacy was his herbarium and the garden at Chambésy. L'Herbier Boissier passed to his daughter and his son-in law William Barbey and it was 'closed' so that it could be maintained in a form that corresponded to *Flora Orientalis*. The Barbeyes started L'Herbier Barbey-Boissier to contain their own collections and other herbaria that they purchased, including that of Georges Reuter. As the 19th century came to a close, Chambésy remained at the centre of the botanical world with the publication of *Bulletin de l'Herbier Boissier* between 1893 and 1908 and botanists such as Nicolai Alboff going there to study and write up their results. After Barbey's death both L'Herbier Boissier and L'Herbier Barbey-Boissier were given to the University of Geneva and are now administered by the Conservatoire et Jardin Botaniques de la Ville de Genève.

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Fasciation in *C. cilicium*

Mike Brown

This article is about a remarkable plant of *Cyclamen cilicium* purchased at the Cyclamen Society show in October 2001 and grown as a show exhibit by my wife Christine and me until its demise from botrytis in 2011. Typical of the species, it possessed in a restrained way, fine qualities of form in leaf and flower. However, it became apparent that it was also a plant of exceptional vigour when in 2008 it produced 670 flowers – counted by removing them either as dead flower heads or alternatively as seed capsules. In 2009 and 2010 the numbers of flowers produced continued to increase: 750 and 814 respectively. It did well in shows never getting anything other than first prize in its class. In 2009 it was awarded the Farrer Medal at the AGS Kent Show and in 2010 it was judged best plant in the Cyclamen Society Birmingham Show – when uncharacteristically the foliage had not developed.

Previously, we had never seemed to be able to get the best out of this species and we were



Mike and Christine Brown's *C. cilicium* without foliage as best plant in show, 2010. Photograph by Martyn Denney

led to think that a good amount of summer warmth might be the missing factor. I resolved to look carefully at how the floral trunk developed during the summer months. In May when the old season's growth died down, I removed the layer of grit completely to expose the top half of the tuber – the boundary between grit and compost being level with the mid-point of the tuber. The top of the pot was then completely covered with two or three layers of capillary matting thus preventing the delicate new growth from drying out whilst allowing a modest amount of ventilation. The covering also provided excellent shading from direct sunlight. Some large specimens of other species have been kept this way by us during



Mike and Christine Brown's *C. cilicium* won a Farrer Medal in 2009. Photograph by Jon Evans

the summer months and there have been no problems providing the grit is replaced before the leaf and flower buds start to grow vertically. High temperatures were achieved by placing the plant in a frame generally in full sun and with little or no ventilation

I made the first observations in the summer of 2006 and saw what I took to be encouraging signs. The amount of visible activity on the floral trunk structure (as revealed by increasing numbers of buds formed) was clearly going to lead to quite a big increase in plant size compared to 2005 and periods of quite rapid change did seem to follow periods of relative warmth. This was of course rather subjective but I felt more confident of there being a link between exposure to warmth and more-rapid development of new season's growth. From 2007 onwards the temptation to progressively increase temperatures from year to year was too hard to resist. When necessary during cool periods, additional heat was provided electrically. Although precise measurements were seldom made and temperature in any case varied according to weather conditions, it became apparent that daytime temperatures within a range of about 25-28°C (77-82°F) for several hours over quite a long period of days did not lead to any signs of distress but rather the reverse: it definitely seemed to promote firm and healthy growth. It should be noted that the compost was never allowed to dry completely, it was always kept just moist. This was relatively easy to do given that the top of the compost was readily observable and that the pot was plunged in a container of damp sand.

Progressively from 2006 until 2010, as the photographs show, flower and leaf buds were produced in increasing numbers and their rates of growth in the summer months increased. With very few exceptions, both flowers and leaves appeared to grow successfully to maturity. As far as can be judged from observation of



Floral trunk showing early signs of fasciation in 2007. Photographs by Mike Brown



Normal growth of floral trunk branches in 2009



Floral trunk branch showing fasciated growth in 2009



Extensive fasciation in 2010

only one specimen, the results do seem to lend support to the idea that exposure to relatively high temperatures during the so-called period of dormancy of *Cyclamen cilicium* is a very important factor in terms of its annual development.

To complicate matters, another interesting and very obvious feature in the growth of the floral trunk structure was observed. In 2007 it became apparent that the growth of a few of the floral trunk branches seemed unusually vigorous and abnormal. Also, new growth from the affected floral trunk branches, instead of radiating outwards from each individual branch, was produced in two series of rows, one being almost the mirror image of the other. In subsequent years, the extent of this condition of growth continued to increase greatly until, in 2010, the entire floral trunk structure was greatly changed. In place of the linear branches of a normal floral trunk of *C. cilicium*, large irregular fan-like structures were formed which crowded out any normal growth.

The identification of this condition as cristate growth or fasciation was made by Vic Aspland from a photograph sent to him and I am pleased to acknowledge his assistance. In fact what I observed was very typical of fasciation which although fairly rare does occur in a very wide section of vascular plant families. This however, seems to be the first report of its occurrence in any cyclamen species.

Fasciation is a condition of abnormal growth in which the apical meristem (growing tip) becomes linear in nature. Growth, instead of being concentrated around a single point, occurs along a line and this abnormality results in much more extensive growth. Normally, fasciation greatly affects the appearance of plants leading to undesirable forms and its occurrence is readily observable. Unusually, in the example reported here, although it was apical meristems present in the stem tissue (the floral trunk) that

were affected, such tissue, being later covered by a layer of grit, was not directly observable when the plant was in full flower. The ordering of the growing points of the numerous petioles and pedicels in two series of rows was more or less completely absent in the positioning of the flowers and leaves. The tendency of both petioles and pedicels to grow horizontally to varying degrees and directions within the grit layer before turning in a vertical direction seemed to hide any distinct linear, uncharacteristic pattern.

By the summer of 2010 the extent of abnormality of the floral trunk was so great and the production of new flower and leaf buds so prolific that normal growth was clearly going to be impossible. Uncharacteristically however, the flowers came before the leaves and consequently it was possible to show the plant at the Birmingham Cyclamen Society show of that year. The foliage which came much later was very vigorous, growing much higher than normal, with a lot of overcrowding. Early in 2011, the volume of biomass produced from the floral trunk was just too great for the available space and disaster was obviously coming. It came in the form of an attack of botrytis, for once a blessing in disguise.

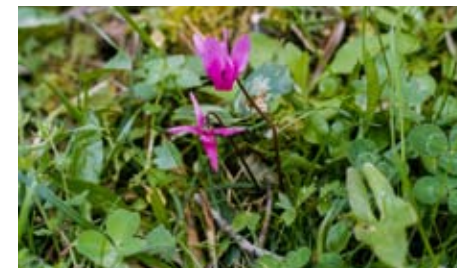
There are many known or suspected causes of fasciation but it appears to result from genetic or other damage to the apical meristem or interference in some way with the process of growth. Apparently asparagus, for example, tends to become fasciated when the underground shoots are exposed to high temperatures and in the present example this also seems to be the most likely cause. As a grower one is always disappointed to lose a good plant. Sometimes the blame can be placed elsewhere ("natural causes" comes to mind) but in this instance, I feel I have to hold my hand up. However, compared to a specimen of *C. cilicium* growing in the wild, this present specimen did at least have an interesting and relatively long life.

Cyclamen repandum on Corfu

Dirk Kapteyn den Boumeester

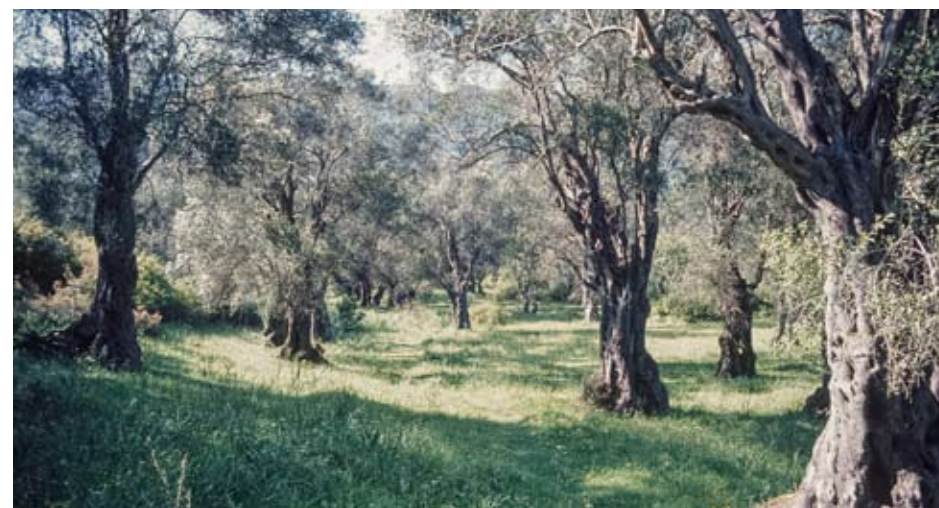
I visited the island of Corfu many times between 1984 and 1995, travelling the whole island but exploring the north-eastern area in particular. In those days, I was interested in orchids so, in 1984, when I found and photographed *Cyclamen repandum*, I did not appreciate the importance of this find and that it could be the only recent proof of the species' occurrence on Corfu.

In 2011, when I became more seriously interested in cyclamen, I bought *Cyclamen - a guide for gardeners, horticulturists and botanists* (Grey-Wilson, 2002). He had stated that "...reports of *C. repandum* from Corfu are erroneous". At first I reasoned that since nine years had passed since publication, the uncertainty of those reports would have been resolved but upon acquiring *Genus Cyclamen in Science, Cultivation, Art and Culture* (Mathew, 2013) it became clear that there were still doubts. This prompted me to write this article.



C. repandum in the meadow near Análipis under the olive trees

The specimens of *C. repandum* that I photographed in 1984 were located in the olive groves north of Análipis, a hamlet in the triangle between Ípsos, Pyrgí and Áno Korakiána, half way along the east coast between Corfu town and the north coast. In the 1980s, this was a mostly undisturbed, hilly, rural area with many beautiful olive groves. I photographed blooming plants of *C. repandum* on 21 or 22 April 1984. I suppose that the plants that I photographed were the only specimens because I would otherwise have taken pictures of better-looking plants. The shape of the flower, the colour and the flowering time all point to these plants being *C. repandum*. One plant grew in a hollow at the foot of an olive tree; the other



Olive grove near Análipis. Photographs by Dirk Kapteyn den Boumeester

was growing in the meadow-like, species-rich vegetation under the olive trees. They stood approximately 10m (33ft) apart. Both plants had poor-quality foliage.

I have visited the area of Análpipsis many times both before and after 1984, mostly at the end of April, but have never seen any cyclamen on these other occasions. I must conclude that the species is or was very rare in that locality. A similar olive grove habitat is present in many parts of the island, but I have never found *C. repandum* elsewhere. On 29 April 2014, Mr Hans Dekker visited the area of Análpipsis at my request but he did not find any cyclamen there or elsewhere during the week he was on Corfu.

As far as I am aware, the only other account of *C. repandum* in Corfu is the one provided by Gerald Durrell in "Birds, beasts and relatives" (1969) but he does not say which species. The exact passage reads: "Half a mile or so from the villa rose a fairly large conical hill, covered with grass and heather, and crowned with three tiny olive-groves, separated from each other by wide beds of myrtle. I called these three little groves the Cyclamen Woods, for in the right season the ground beneath the olive-trees was flushed magenta and wine-red with the flowers of cyclamen that seemed to grow more thickly and more luxuriantly here than anywhere else in the countryside. The flashy, circular bulbs, with their flaky peeling skin, grew in beds like oysters, each with its cluster of deep green, white-veined leaves, a fountain of beautiful flowers that looked as though they had been made from magenta-stained snow-flakes." Brian Mathew (2013) does not take this account seriously: He states: "The supposition that *C. repandum* is present in Corfu possibly comes from the comment in one of Gerald Durrell's books, that he saw cyclamen there growing in spring".

In my opinion, Durrell's mention deserves more attention. He may have afforded poetic liberties

when describing people but his descriptions of nature are mostly very accurate. Durrell describes how he rested there when the weather was hot, exhausted after a lizard hunt and how he took two young magpies from a nest there. Although Durrell speaks only of "the right season", this season must be spring. Hot weather, lizards and young birds are not the items one expects in the flowering season of the only other cyclamen species in Corfu, *C. hederifolium* in October or November. My conclusion is that Durrell's cyclamen can only be *C. repandum*.

Where were these "Cyclamen woods"? The Durrell family was living at that time in the "snow-white villa", also called Cressida-villa. An internet search revealed that the villa was on a hill above the road between Vrióni and Pérama. The description "Half a mile or so from the villa" could bring us to the surroundings of Pikoulátika south of the villa. It would be nice, if someone would take the opportunity to explore the olive groves there.

Many things have changed on Corfu since Gerald Durrell's stay on the island and also over the course of my own visits. New houses have been built in the countryside and the use of herbicides has increased. It will be difficult to find *C. repandum* again on its former locations or to discover new locations.

Acknowledgements

Thanks go to Mrs Marilyn H S Light (Gatineau, Québec, Canada) for revising the English text and to Mr Hans Dekker (Hooegeveen, Netherlands) for visiting the area of Análpipsis in 2014.

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Cyclamen libanoticum, a species that knows its identity!

Alastair Culham and Kálmán Könyves



C. libanoticum at Mchati, Lebanon. Photographs by Martyn Denney

One of the challenges in plant classification is to decide where lines should be drawn in natural variation to delimit species, subspecies and varieties. Plants can vary in morphology, chromosome number, flower colour and many other traits while still being treated as a single species. *Crocus biflorus*, to take one example, has chromosome counts varying from 8 to 22 but this does not link to any other feature and so the different individuals are treated together as one species (Brighton et al, 1973). *Anemone coronaria* can have flowers of bright red, pink, blue-purple and white in natural populations (Horovitz, 1976) but again is treated as a single species. In these kinds of cases differing taxonomic opinion can lead to the splitting of species into smaller

groups, and then sometimes the lumping back again. You could argue that these are less than ideal species, and looking at synonyms for these two names it takes just moments to find 23 other names for *Anemone coronaria* and 43 for *Crocus biflorus* in Catalogue of Life (Roskov et al, 2014). So what might we expect for *Cyclamen libanoticum*? It has a narrow and well defined distribution (Mathew, 2013), only a small amount of morphological variation (Haber and Semaan, 2013) but is in a well-studied genus (something that tends to increase the number of synonyms). Catalogue of Life lists no synonyms for the species, nor does The Plant List (2013).

Taxon name	Collector and Number	Provenance	Haplotype
<i>C. libanoticum</i>	CSE14002	site 14/02	H1
<i>C. libanoticum</i>	CSE14008	site 14/04	H2
<i>C. libanoticum</i>	CSE14003	site 14/05	H2
<i>C. libanoticum</i>	CSE14004	site 14/06	H1
<i>C. libanoticum</i>	CSE14006	site 14/07	H1
<i>C. libanoticum</i>	CSE14007	site 14/07	H1
<i>C. libanoticum</i>	CSE14009	site 14/09	H1
<i>C. libanoticum</i>	CSE14010	site 14/09	H1
<i>C. libanoticum</i>	CSE14011	site 14/11	H1
<i>C. libanoticum</i>	CSE14012	site 14/12	H1
<i>C. libanoticum</i>	CSE14013	site 14/13	H1
<i>C. libanoticum</i>	CSE14015	site 14/16	H1
<i>C. libanoticum</i>	CSE14019	site 14/20	H1
<i>C. cypricum</i>	Tile Barn 'M'	Cyprus	H3
<i>C. coum</i>	Tile Barn 'P',	Caucasus	H4
<i>C. pseudibericum</i>	Peter Moore	unknown	H5
<i>C. persicum</i>	CSE98338	Site 98/12D Symi, Greece	H6

Table I. Details of the studied cyclamen samples

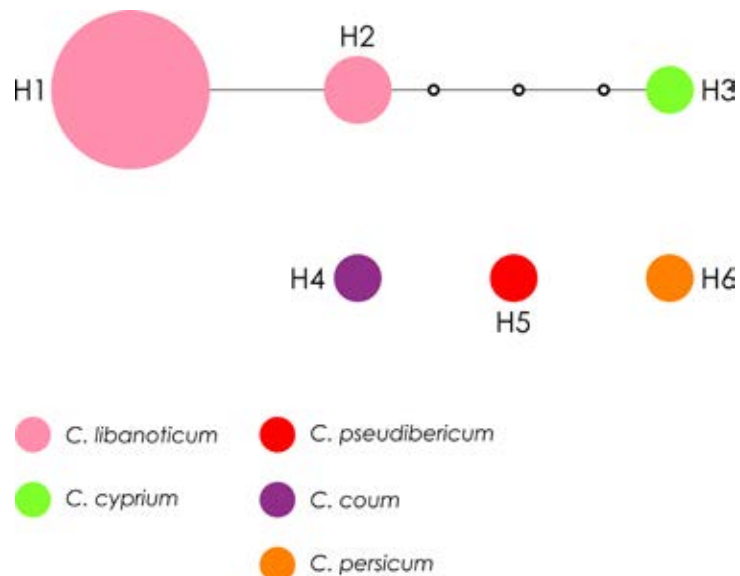


Figure 1. Haplotype network of *C. libanoticum* samples and related species based on three chloroplast DNA regions. Open circles indicate 1bp change and length of line does not have a meaning. Coloured circles are recorded DNA sequence types. Haplotype numbers (H) correspond to those found in Table 1

Samples collected by the Cyclamen Society field study in 2014 (Denney et al, 2014) from around Jabal Moussa in Lebanon were sampled for DNA and sequences from six different regions of chloroplast DNA (*atpH-atpF*, *matK*, *psbI-psbK*, *rps16*, *trnH-psbA* and *trnLF*) were sampled to look for variation that might identify populations or other local variation. Three of these DNA sequences (*psbI-psbK*, *rps16* and *trnLF*) were also compared with other cyclamen that occur in this area: *Cyclamen coum*, *C. persicum* and *C. pseudibericum*. Current taxonomic opinion is that *C. libanoticum* is most closely related to *C. cypricum* (Compton et al, 2004), (Yesson and Culham, 2006) so that also needed to be compared even though it is geographically separated on Cyprus. The methods for DNA extraction and sequencing are given in a previous Cyclamen Society field study report (Könyves and Culham, 2014a). The DNA sequence data were analysed to generate a pattern of similarity (=relationship) among the samples following established methods (Könyves and Culham, 2014a).

Analysis of the chloroplast DNA from the six regions shows that, in *C. libanoticum*, only one base-pair difference is found among samples within the analysed 7,066 base-pairs. This one base-pair difference (9 'A's vs 10 'A's) was found in the samples collected from sites 14/04 and 14/05 (Table 1) and could represent a very minor change in DNA sequence or even show the limits of accuracy of the sequencing system used.

Data from the three geographically related species shows that they are very different from *Cyclamen libanoticum* with no close genetic overlap. However, comparison with *C. cypricum* shows the same close relationship previously reported by Yesson et al (2009) (Figure 1). We previously estimated that *C. cypricum* and *C. libanoticum* separated genetically around 1.0 to 1.5 million years ago; the two species remain in close geographic proximity but are now separated by an effective barrier of seawater.



C. libanoticum above Nahr ed Dahab, Lebanon

What do the results tell us about the diversity and biology of *Cyclamen libanoticum*? Firstly, and very importantly, the species remains distinct from others that grow in the same general area so there is no risk to the species through hybridization with commoner and more widespread species. Secondly, when conservation of cyclamen is considered, *C. libanoticum* must be considered alongside *C. cypricum*. Thirdly, that the low level of variation seen – compared with our report on *C. colchicum* in the June 2014 *Journal* (Könyves and Culham, 2014b) – indicates that this small and narrow distribution is that of either a very young species that has not yet accumulated much genetic diversity or that the species has gone through a genetic bottleneck (ie an event or series of events which reduces the population of the species to such an extent that the gene pool is much reduced leaving it genetically homogeneous). Whatever the genetics say, this is a beautiful and under-cultivated species.

About the authors

Alastair Culham and Kálmán Könyves can be contacted at the Centre for Biodiversity and Systematics, School of Biological Sciences, University of Reading, RG6 7RP, UK.

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Lebanon field study, 2014: *C. persicum* and *C. coum*

Richard Bailey, Martyn Denney and Keith Fry

For an introduction to, and description of, the area studied and other background matters (including a bibliography) please see “*Cyclamen libanoticum* field study, March 2014” in the June 2014 issue of the *Journal* (Denney et al, 2014).

Cyclamen libanoticum is, as a Lebanese endemic of very limited distribution, by far the most interesting and important cyclamen species in the area studied. The field study was specifically undertaken to research that species, consequently relatively little detail was recorded for either *C. persicum* or *C. coum*. However, *C. persicum* is the most abundant cyclamen species in Lebanon, while the populations of *C. coum* offer a significant link in the distribution of that species from south eastern Turkey to Israel. All three species occur on Jabal Mousa, the centre of the very limited distribution of *C. libanoticum*, and in surrounding areas.

Not only is *Cyclamen persicum* the most abundant species, it is also the most obvious. In many places tens, scores, even hundreds of plants, so close as to touch each other, were covered in flower along roadside stone banks and hedges. Others perched, often precariously, in thin soil covered with moss over rock and would light up a shady bank. In one particularly spectacular site – a mature, roadside orchard – low terraces were densely covered in flower, from palest pink to truly red, over an area some 30 by 50 m (98 by 164 ft). At another site, a small roadside grotto, *C. persicum* grew with *C. libanoticum* around a small shrine; both were regenerating freely but could originally have been planted.



C. persicum at Yahchouch. Photographs by Martyn Denney

In northern Turkey *Cyclamen coum* can be a weed in hedgerows and orchards, especially within the base of coppiced hazel nut bushes and *C. persicum* can be a road- or field-side weed in Lebanon. However, *C. coum* is by no means so abundant in Lebanon, being largely a plant of limestone outcrops or rock strewn grass.

Cyclamen persicum

Cyclamen persicum is found at scattered sites in the lowland strip along the coast from Beirut to Tripoli, largely inland of the dense residential and commercial developments that hug the coast road, becoming widespread and abundant up the various valleys leading away from the coast.



C. persicum in a small cemetery and shrine in Jounieh



Cyclamen persicum in a mature orchard on low terraces by the roadside in Yahchouch

Habitat

A few sites were found within the built-up area including a magnificent population in a small cemetery and shrine by a busy road in Jounieh (which might originally have been planted) but populations normally occurred as development thinned out away from the coast. If development had allowed, the species would probably be growing very close to sea level. However, the lowest site recorded was at an altitude of 26 m (85 ft) amongst mosses and other plants on

a shaded, limestone wall along the road from the coast towards Yahchouch. The highest record was amongst boulders and open, deciduous scrub at 1,167 m (3,829 ft) close to a camp site above Chahtoul and Jouret Mghad – just a few metres from a shadier site where *C. libanoticum* was abundant.

Most often, *C. persicum* was found in shade or half shade below deciduous trees or scrub, on hedgebanks or drystone walls. Nonetheless, it



C. persicum leaf forms in the orchard (see above)



*C. persicum* at Chouwan on the north side of Jabal Moussa

did occur in other habitats – including rough, boulder-strewn grassland and deeply-shaded woodland. Populations were found on level ground and on slopes with all aspects and gradients. One unusual site, a large clump on cracked concrete under a lattice-work pylon, emphasized the tendency of this species to favour high pH substrates.

Companion plants were very varied and largely dependent on habitat. Overall the most frequent companion species at the sites studied were: *Quercus coccifera*, *Cyclamen libanoticum*, *Hypnum cupressiforme*, *Hedera helix*, *Ostrya carpinifolia*, *Rubus fruticosus* agg., *Ruscus aculeatus*, *Smilax aspera* and *Taraxacum officinale*

*C. persicum* at Yahchouch

agg. That *C. libanoticum* appears in this list is due to the bias of this study. *Cyclamen persicum* is often found with *C. libanoticum* where their ranges overlap, but has a substantially more widespread distribution.

Other noteworthy species included *Arbutus andrachne*, *Athyrium filix-femina*, *Ceterach officinarum*, *Hyacinthus orientalis*, *Orchis galilea*, *Paeonia kesrouanensis* and *Primula vulgaris*.

Morphological data

Details of flower colour according to the RHS colour chart were not recorded for *C. persicum*, nor were leaves or flowers measured. However, flowers varied from almost pure white to a deep rose red, with a darker basal blotch. Most were some 2.5 cm (1 in) high – much the size of the small-flowered hybrids widely available in Britain but with narrower, more elegant petals.

Adult tubers of *C. persicum* varied in size as shown below (all tubers measured were in flower or had flowered):

Diameter (cm)	Height (cm)	Floral Trunk Length (cm)
8.5	2.8	3.6
8.2	6.1	* 0.9; 0.8; 0.7; 0.7; 0.6
7.9	4.9	** 2.3
7.6	3.0	3.1
7.4	4.7	none
7.2	2.3	0.3
6.0	2.9	1.2
5.9	3.0	none
5.4	3.8	1.0
5.2	2.6	1.2
5.0	2.1	none
4.7	1.2	none
3.1	1.5	none

* This tuber had 5 floral trunks
** Roots had developed directly from this floral trunk, which had a diameter of 3.4cm

Tuber depth was dependent on habitat – from 3 to 5 cm (1.2 to 2 in) in deep, humus-rich, woodland soils, to on the surface amongst mosses over stone, or tucked into rock crevices.

*C. coum* on the south side of Jabal Moussa

Conservation and regeneration

The species is so abundant in a range of habitats and areas (including areas already developed) that it is under no immediate threat. Regeneration is obviously excellent. Nonetheless, visible regeneration appeared in many places to be no more than adequate, although 2013 seedlings or yearlings were found (albeit sparsely) at the great majority of sites. Some quotes from field notes illustrate the situation: 'scattered seedlings below mother'; 'some regeneration shown by 2-3 year olds'; 'few 2013 seedlings but other young plants spreading' or 'a few yearlings'.

*C. coum* at Tannourine

Cyclamen coum

Cyclamen coum is not a common plant in Lebanon. In the limited area of this study it was found at only seven sites, six in rough grassland amongst outcropping limestone boulders, the fifth on a limestone cliff. It was in flower at two sites.

Habitat

The altitude of the sites varied from 1,289 m (4,229 ft) to 1,811 m (5,942 ft) and the aspect from northwest to east-northeast, with one site on Jabal Moussa facing south west. Plants were usually scattered as single individuals in crevices or pockets in water-worn limestone on a near-vertical, north-facing cliff (one site) or, elsewhere, singly and in small groups amongst limestone boulders under shrubs (usually *Crataegus monogyna* or *Quercus coccifera*) in flat or very gently sloping (perhaps 1 in 10) lightly-grazed pasture or in similar sites on the steeper slopes of Jabal Moussa. Shade levels when leaves were on trees or shrubs would approach 100% at all sites.

Cyclamen coum was found over a larger area than *C. libanoticum* ranging from several sites on Jabal Mousa, where it was widespread but only

*Corydalis triternata* at Tannourine



Cedrus libani in the shadow of Mt Lebanon, Tannourine

in small, scattered populations, to the Ehden and Tannourine reserves further north and east. Very small populations were found at two sites close to Qehmez and Lassa.

On Jabal Moussa it was associated with *Anemone blanda*, *A. coronaria*, *Bellevia flexuosa*, *Cyclamen persicum*, *Paeonia kesrouanensis* and *Scilla cilicica*, in grassland with limestone outcrops.

The Tannourine Forest Nature Reserve contains many cedars of Lebanon (*Cedrus libani*), Lebanon's national emblem. Other



Anemone blanda on Jabal Moussa

plants included *Anemone blanda*, *Corydalis triternata*, *Gagea chlorantha*, *Juniperus oxycedrus*, *Ornithogalum montanum* and, according to one guide book (Doyle, 2012) "20 varieties of mushroom"! (This same guide book mentions a tour company organising ecotours to the reserve, a company called Cyclamen!) *Cyclamen coum* grew here under *Crataegus monogyna* and *Juniperus oxycedrus* and at the base of limestone blocks (often in crevices).

Not far away the Horsh Ehden Forest Nature Reserve supports some 20% of the country's cedars and is, to quote, "home to 1,058 types of flora" (Doyle, 2012). Along with *Cyclamen coum* we found *Anemone blanda* (both blue- and white-flowered), *Daphne oleoides*, *Doronicum orientale*, *Geranium rotundifolium*, *Ostrya carpinifolia* and *Phlomis fruticosa*. *Cyclamen coum* was found in open scrubland on moist clay over limestone.

Morphological data

Five leaves and two flowers were collected from five sites for detailed measurement.



C. coum and *Anemone blanda* at Horsh Ehden

Flowers: Corolla lobe size: length 12.6 and 15.6 mm; width 9.0 and 11.2 mm.

Corolla lobe colour: both were within the red purple group of the RHS colour charts at 77B and 77C, corolla lobe nose colour at 79B and 79A (both dark purple) respectively.

Corolla lobe twist: 90 and 120 degrees. Both had exserted styles and neither was scented.

Leaves: Lamina size: length 23.9 - 53.3 mm; width 23.1 - 53.5 mm. Length never exceeded width.

Lamina thickness: one leaf 0.4 mm; 4 leaves 0.3 mm.

Depth of sinus: 6.1 - 12.0 mm.

Angle of sinus: 0 - 50 degrees, on no leaf did the lobes overlap.

Number of main veins: 7 on all leaves.

Diameter of petiole approximately 1 cm below the lamina: 0.9 - 1.4 mm.

Colour of reverse: red/purple in all leaves.

Conservation and regeneration

Cyclamen coum is widespread in the area studied but populations are small and in most sites under some pressure from grazing. Regeneration appeared to be good, especially on the southern slopes of Jabal Moussa where coiled-down seed pods and seedlings of varying ages were noted. Seedlings of different ages were noted at all sites except Tannourine.

Acknowledgements

We are pleased to repeat and emphasise our gratitude to all those who helped us, notably Myrna Semaan for help in planning the trip and in the field and Pierre Doumet, Joelle Barakat, Roman Bruder and Eli Khalil for help in the field.

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The *C. graecum* group – how many species?

Alastair Culham and Kálmán Könyves

Cyclamen graecum is a well-defined evolutionary unit that separated from other cyclamen species about 10 million years ago (Yesson and Culham 2006; Yesson, Toomey and Culham, 2009). It is genetically isolated and there are no records of it hybridizing naturally with other species. However, over that time it has begun to form separate populations that themselves might later become species. These are currently recognised at the subspecies level (Mathew 2013) and have distinct geographic distributions (Figure 1) showing isolation by water between populations. *Cyclamen graecum* subsp. *graecum* occupies mainland Greece and nearby islands, *C. graecum* subsp. *candicum* occurs in Crete and *C. graecum* subsp. *anatolicum* is found in Cyprus, Rhodes and areas of Turkey near the Mediterranean coast. However, life with



C. graecum subsp. *graecum* near Voula, Attica, Greece. Photographs by Martyn Denney

plants would be far too easy if the story were that simple: there are records of *C. graecum* subsp. *graecum* from the western end of Crete growing in close proximity (approximately 10 km/6 miles) to *C. graecum* subsp. *candicum* with the potential to hybridise. And the story is not even that simple.

We were provided with 23 samples of *Cyclamen graecum* for analysis by the Cyclamen Society

Table of samples from which DNA was extracted for <i>Cyclamen</i> research				
Reading Code	List Name	Collector/ No.	Provenance	DNA group
C3	<i>C. graecum</i> subsp. <i>graecum</i>	Tile Barn 'B'	Prostos; Peloponnese	H5
C4	<i>C. graecum</i> subsp. <i>anatolicum</i>	Tile Barn 'A'	Monte Smith; Rhodes	H9
C13	<i>C. graecum</i> subsp. <i>candicum</i>	Tile Barn 'E'	Fourfouras; Crete	H2
C39	<i>C. graecum</i> subsp. <i>candicum</i>	CSE 96465	Above Askifou; Crete	H5
C63	<i>C. graecum</i> subsp. <i>graecum</i>	unknown	Rhodopou; Crete	H5
C68	<i>C. graecum</i> subsp. <i>graecum</i>	CSE93002	site 93/02; Astros; Peloponnese	H6
C69	<i>C. graecum</i> subsp. <i>candicum</i>	CSE96111	site 96/07; Fourfouras; Crete	H2
C70	<i>C. graecum</i> subsp. <i>graecum</i>	unknown	Voula Attica	H6
C71	<i>C. graecum</i> subsp. <i>candicum</i>	CSE96459	site 96/26; Imbros Gorge; Crete	H3
C72	<i>C. graecum</i> subsp. <i>candicum</i>	CSE96001	site 96/02; Kouloukanas Mountains; Crete	H2
C73	<i>C. graecum</i> subsp. <i>anatolicum</i>	unknown	Near Liveras; Cape Kormakiti; N. Cyprus	H8
C74	<i>C. graecum</i> subsp. <i>anatolicum</i>	CSE91466	site 91/14; Monte Smith; Rhodes. Leaves and flowers resemble subsp. <i>candicum</i>	H2
C75	<i>C. graecum</i> subsp. <i>anatolicum</i>	CSE91313	site 91/14; Monte Smith; Rhodes	H9
C76	<i>C. graecum</i> subsp. <i>graecum</i> f. <i>album</i>	CSE96566	site 96/38; Rhodopou; Crete	H5
C77	<i>C. graecum</i> subsp. <i>graecum</i>	unknown	Thalassa Limonari; Meganisi	H7
C78	<i>C. graecum</i> subsp. <i>graecum</i> f. <i>album</i>	R. & E. Frank	Gythion; Peloponnese; type specimen	H7
C79	<i>C. graecum</i> subsp. <i>graecum</i>	CSE93642	site 93/23; Hydra	H7
C80	<i>C. graecum</i> subsp. <i>graecum</i>	CSE93644	site 93/03; Poros	H6
CK121	<i>C. graecum</i> subsp. <i>anatolicum</i>	CSE09120T	site 09/11; Alanya; Turkey	H9
CK139	<i>C. graecum</i> subsp. <i>candicum</i>	unknown	Platanias; Crete	H1
CK140	<i>C. graecum</i> subsp. <i>candicum</i>	unknown	Above Askifou; Crete	H3
CK141	<i>C. graecum</i> subsp. <i>candicum</i>	unknown	Malaxa; Crete	H4
CK142	<i>C. graecum</i> subsp. <i>anatolicum</i>	CSE08422T	site 08/32T; W of Taşucu; Turkey	H9

Table 1. Samples from which DNA was extracted for cyclamen research

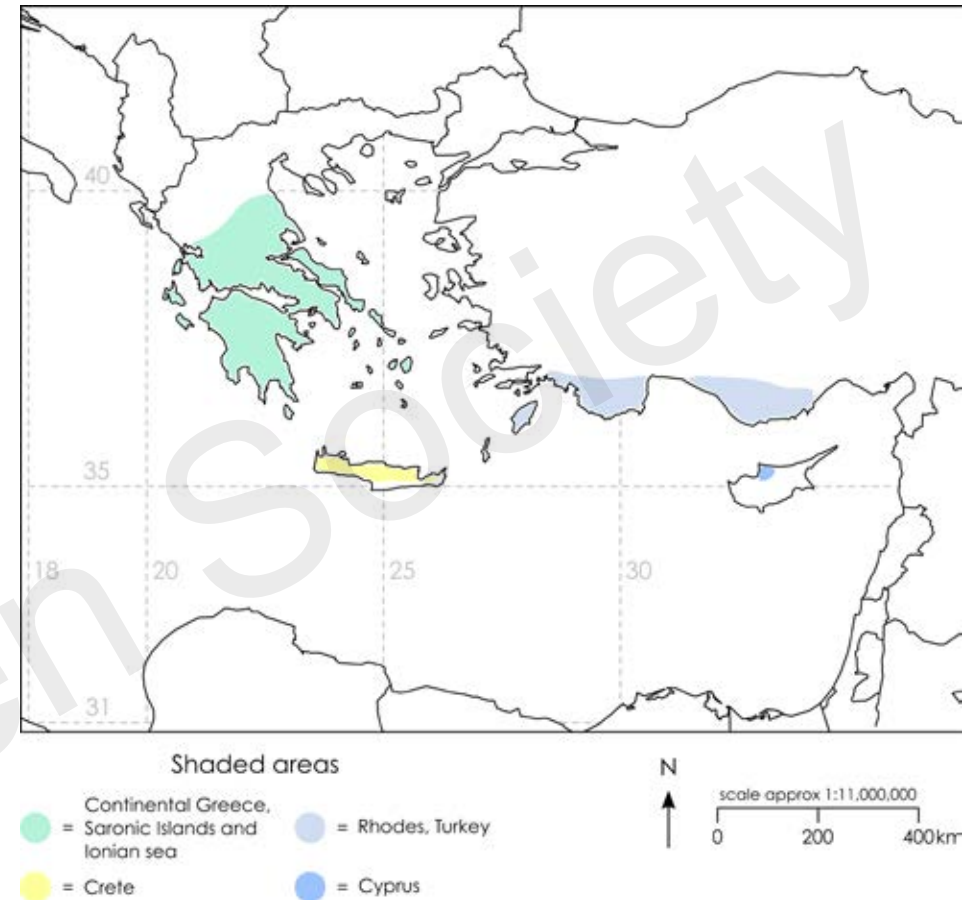


Figure 1. Geographic distribution of *C. graecum*. Shaded areas illustrate geographic groupings corresponding to Figure 2

originating from field studies and private collections (Table 1). These were labelled as nine *C. graecum* subsp. *graecum*, eight *C. graecum* subsp. *candicum* and six *C. graecum* subsp. *anatolicum*. The samples include plants from all the main distributional areas for each subspecies. We extracted and sequenced the DNA following the methods previously described (Könyves and Culham 2014a) using DNA sequences from six different regions of chloroplast DNA totalling 6,182 base pairs of DNA sequence per

sample (with a small number of missing data for three samples only). The DNA sequences were aligned with each other so that we could work out the degree of match and degree of difference between samples. The differences were counted by computer to generate a map showing the DNA similarities and the number of changes from sample to sample as described in Könyves and Culham (2014b). This pattern of variation is represented by a simple table that shows counts of the number of differences in

	(C1)	(C13)	(C14)	(C17)	(C19)	(C20)	(C21)	(C22)	(C26)	(C27)	(C28)	(C31)	(C33)	(C39)	(C69)	(C71)	(C72)	(CK139)	(CK140)	(CK141)	(C4)	(C73)	(C74)	(C75)	(CK121)	(CK142)
subsp. graecum (C3)	0																									
subsp. graecum (C63)	4	4																								
subsp. graecum (C68)	4	4	0																							
subsp. graecum (C70)	3	3	3	3																						
subsp. graecum (C77)	3	3	3	3	0																					
subsp. graecum (C79)	4	4	0	0	3	3																				
subsp. graecum (C80)	0	0	4	4	3	3	4																			
subsp. graecum f. album (C76)	3	3	3	3	0	0	3	3																		
subsp. graecum f. album (C78)	7	7	7	7	6	6	7	7	6																	
subsp. candicum (C13)	0	0	4	4	3	3	4	0	3	7																
subsp. candicum (C39)	7	7	7	7	6	6	7	7	6	0	7															
subsp. candicum (C69)	6	6	9	9	5	5	9	6	5	9	6	9														
subsp. candicum (C71)	7	7	7	7	6	6	7	7	6	0	7	0	9													
subsp. candicum (C72)	2	2	2	2	1	1	2	2	1	5	2	5	4	5												
subsp. candicum (CK139)	6	6	6	6	5	5	6	6	5	9	6	9	0	9	4											
subsp. candicum (CK140)	4	4	4	4	3	3	4	4	3	7	4	7	6	7	0	0										
subsp. candicum (CK141)	17	17	17	17	16	16	17	17	16	16	17	18	19	18	15	19	17									
subsp. anatolicum (C4)	15	15	15	15	14	14	15	15	14	16	15	16	17	16	13	17	15	6								
subsp. anatolicum (C73)	7	7	7	7	6	6	7	7	6	0	7	0	6	0	5	9	7	18	18							
subsp. anatolicum (C74)	17	17	17	17	16	16	17	17	16	16	17	18	19	18	15	19	17	0	6	18						
subsp. anatolicum (C75)	17	17	17	17	16	16	17	17	16	16	17	18	19	18	15	19	17	0	6	18	0					
subsp. anatolicum (CK121)	17	17	17	17	16	16	17	17	16	16	17	18	19	18	15	19	17	0	6	18	0					
subsp. anatolicum (CK142)	17	17	17	17	16	16	17	17	16	16	17	18	19	18	15	19	17	0	6	18	0	0				

Table 2. Number of pairwise DNA substitutions

DNA sequence between each pair of samples (Table 2) and a diagram (Figure 2) showing the steps between each sample on which we have coloured the circles based on the field identification of the species and shaded areas based on geographic occurrence.

Unlike the study of *Cyclamen libanoticum* (see page 61) we both expected, and found, a substantial amount of DNA sequence variation. Yesson et al (2009) previously estimated the evolutionary age of *C. libanoticum* at 1.0 to 1.4 million years while *C. graecum* has been around for about 10 million years so there has been ten times longer to accumulate changes in DNA sequence. In *C. libanoticum* we found only one base change in the DNA sequence so in *C. graecum* we might easily expect 10 or

more and we actually find over 30 changes. Is this plausible? Yes, we argued that *C. libanoticum* could have lost some of its genetic diversity as a result of a historically small population size; in contrast the wide distribution of *C. graecum* would support a population that has spread and grown over time.

If the assertion made at the beginning of this article is accepted, and subspecies are geographically separate we would expect to see three very distinct groups of samples, one for each subspecies. However, there are some surprises in the data. Firstly, perhaps a small surprise only: subsp. *graecum* and subsp. *candicum* overlap in their DNA sequence profile (circle H5, Fig 2). Three samples in H5 are from Crete and one is from the Peloponnese so the

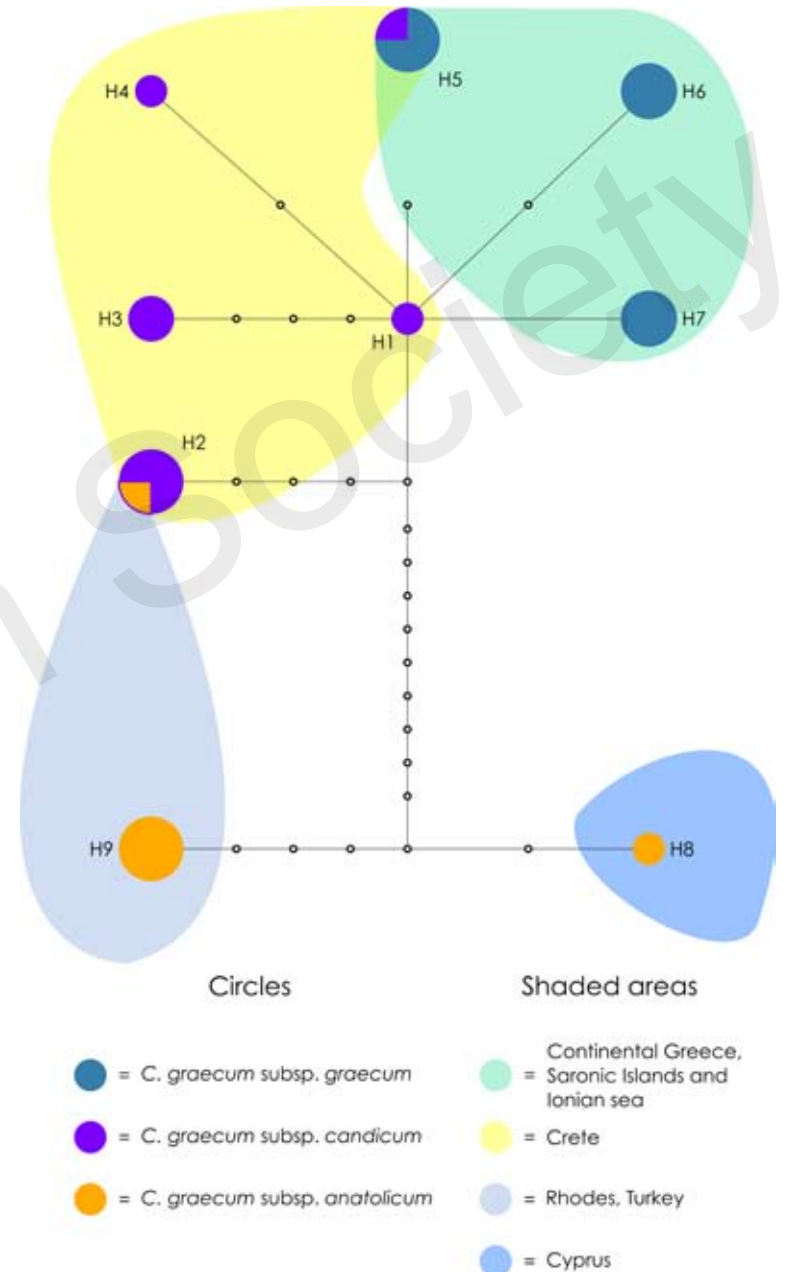


Figure 2. Haplotype network of *C. graecum* samples based on six chloroplast DNA regions. Open circles indicate 1bp change and length of line does not have a meaning. Coloured circles are recorded DNA sequence types. Haplotype numbers (H) correspond to those found in Table 1. Shaded areas show geographic groupings



C. graecum subsp. *graecum* ex CSE93642. Winner of Class A14 at the Wisley Autumn Show; grown by Steve Walters. The parent plant (sample C79 in this study) was collected during a Cyclamen Society field study on the island of Hydra in 1993

genetic overlap coincides with the geographic overlap suggesting there is still gene exchange (hybridization) between the two subspecies. Generally the recognition of something at subspecies level suggests incomplete separation but the beginnings of a drifting apart that might later become a full separation.

Perhaps the biggest surprise is sample C74 (Table 1) which was gathered in Rhodes. Literature (Mathew 2013; Grey-Wilson 2002) suggests that all *Cyclamen graecum* on Rhodes is subsp. *anatolicum* and the field identification was based on this assertion. However the field notes say "Leaves and flowers resemble subsp. *candicum*". The DNA sequence shows us very clearly that this sample belongs to *C. graecum*

subsp. *candicum* and it matched three samples from Crete! This is a very good illustration of the need to identify the plant from its individual features rather than from its geographic origin. It does beg the question – how did it get there, but that is not something we can attempt to answer here.

Also very notable was the high degree of genetic separation between *C. graecum* subsp. *anatolicum* and the other two subspecies. This separation is represented by at least 13 changes in DNA sequence (known as 'base substitutions').

Overall, two of the three subspecies of *C. graecum* show genetic overlap that coincides with geographic overlap but the third *C. graecum*



C. graecum subsp. *candicum* CSE96466. Winner of Class A13, the Mick Reed Bowl (best *C. graecum*) and the Maslin Cup (best plant in show) at the Wisley Autumn Show. Grown by Ian Robertson. This plant was collected near Kares on the Askifou Plain, Crete during a Cyclamen Society field study in 1996

subsp. *anatolicum* is genetically distinct showing a large number of DNA changes from the other two subspecies, and it must be a candidate for recognition at the species level.

The split between *Cyclamen graecum* subsp. *graecum* and *C. graecum* subsp. *anatolicum*, at 2.9 to 3.4 million years ago, is older than the average speciation age of 2.3 million years for the genus *Cyclamen* (Yesson, Toomey and Culham, 2009), so it would be entirely consistent to treat *C. graecum* subsp. *anatolicum* as a species rather than a subspecies.

Hildebrand's name *Cyclamen maritimum* (Hildebrand, 1908, p291) is the earliest name available at species level for what is currently

called *C. graecum* subsp. *anatolicum* so no new names are required and no new status required for any names. Therefore we propose that the *C. graecum* group now comprises two species, *C. graecum* and *C. maritimum*. *Cyclamen graecum* retains only two subspecies, *C. graecum* subsp. *graecum* and *C. graecum* subsp. *candicum* (see Table 3 overleaf). This would be consistent with species concepts elsewhere in the genus *Cyclamen* and properly reflect the genetic and geographic isolation of this element of the group.

About the authors

Alastair Culham and Kálmán Könyves can be contacted at the Centre for Biodiversity and Systematics, School of Biological Sciences, University of Reading, RG6 7RP, UK.

Current name in use	Proposed name to use
<i>C. graecum</i> subsp. <i>graecum</i>	<i>C. graecum</i> subsp. <i>graecum</i>
<i>C. graecum</i> subsp. <i>candicum</i>	<i>C. graecum</i> subsp. <i>candicum</i>
<i>C. graecum</i> subsp. <i>anatolicum</i>	<i>C. maritimum</i>

Table 3. Proposed classification of the *C. graecum* group

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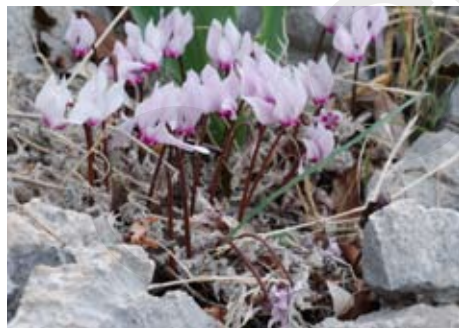
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Cyclamen maritimum at its most easterly station on the Turkish mainland, just west of Tuşucu, Mersin. Site 08/32T. Photographs by Chris Clennett and Martyn Denney

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Show Business

Shows in 2015

Winter Show: Saturday 7 February 2015
– Hillside Events Centre, RHS Wisley

Spring Show: Saturday 28 March 2015
– Hillside Events Centre, RHS Wisley

Birmingham Conference Show: Sunday 27 September 2015 – Birmingham Botanical Gardens

Autumn Show: Sunday 11 October 2015
– Hillside Events Centre, RHS Wisley.

Show Schedules, including trophies to be awarded at the Winter and Spring shows have been included with this *Journal* and are also available on the website along with the Show Rules. Staging of plants for all shows starts at 8am and must be completed before judging starts at 10.15am.

Members are invited to bring plants not for competition which they would like to display or ask about. Also please bring surplus plants (cyclamen, or other plants likely to interest cyclamen growers), to sell or exchange; you will



C. graecum subsp. *anatolicum* (now *C. maritimum*), winner of Class A4. Grown by David Richards

be expected to donate 25% of the proceeds to the Society (exchanges will be treated as sales). "Bargain" cyclamen (at a very low price, to encourage starter growers) are very welcome. Plants for sale should have two labels, one with the name of the plant, the other with the seller's name and price: prices must be IN MULTIPLES of 50p – for example £1.50, £2 and £3.50.

Any queries concerning the show schedules or about the Wisley shows generally should be addressed to the Show Secretary, Maurice Jackson (shows@cyclamen.org) or the Assistant Show Secretaries: ()

. Full details about how selling plants works and directions to the shows will be found on the website: www.cyclamen.org/shows



C. graecum subsp. *anatolicum* CSE98373D (now *C. maritimum*), winner of Class A3, the Buglass Bowl (best *C. graecum*) and the Buglass Salver (best plant in show). Grown by Ian Robertson. Photographs by Martyn Denney



C. intaminatum ex CSE01068T shown by Ian Robertson. Winner of Class A11 and the Oylat Trophy (best *C. intaminatum*)



C. mirabile 'Tilebarn Nicholas', shown by Ian Robertson. Winner of Class A12

Birmingham Show, 21 September 2014

Paul Whitlock writes: Your correspondent doesn't usually make it to this show but it was a revelation with many species, for which the Wisley autumn show is too late, flowering at their best. A wealth of Society members locally ensured a large number of plants on the benches and on the sales table, high quality plants too. The Botanical Gardens themselves staged a small exhibit of some very attractive plants from their glasshouses, which should interest visitors at other times and hopefully will encourage them to take up cultivation. Continuing the tradition of interesting talks, there were lectures by members of both last summer's field study to the Caucasus to research *Cyclamen colchicum*

and this year's early spring study in the Lebanon to research *C. libanoticum*.

Ian Robertson and Steve Walters split the senior prizes between them but the competition had eight other winners. Steve Walters and Duncan Gates staked out their traditional ground in the three-pot class, this time for flower, but they weren't watching their backs in the foliage class where David Richards took one of his three well-deserved prizes.

Several classes stood out for number of entries and quantity of flower. Class A12 for *C. mirabile* was packed, A14 for *C. colchicum* had a great selection, Classes A19 and A20 reminded us of



C. purpurascens shown by Steve Walters. Winner of Class A13, the Nick Carter Memorial Trophy and the Graham Simpson Memorial Trophy at the Birmingham Show, and Class A12 and the Foliage Salver at the Wisley Autumn Show



C. colchicum shown by Tim Murphy. Winner of Class A14

C. hederifolium 'Ruby Glow' in several classes, a deep pink *C. confusum* in Class A7 (David Richards), a clear pink *C. purpurascens* in Class A13 (Steve Walters), an elegant *C. colchicum* in Class A14 (Tim Murphy), a floriferous *C. graecum* subsp. *graecum* ex CSE94046 in Class A20 (Ian Robertson).

what excellent plants have been brought into cultivation as a result of the society's scientific research, Classes B1 for *C. graecum*, B3 for *C. hederifolium* and B7 for other species, were all full, with six different winners.

While many plants reinforced my wife's prejudices, formed from my limited collection ("I suppose they are nice dear but they do look rather similar and they are all pink"), there were some excellent plants in both darker and paler colours, with elegantly twisted petals and with superleaf patterns (seed to the society's exchange please!). Those for flower were

In the classes for pots under 19 cm there were also excellent plants: a dark *C. graecum* subsp. *graecum* in Class B1 (Ian Robertson) and a large-flowered *C. hederifolium* forma *albiflorum* in Class B3 (David Sissons). There was also attractive foliage on display: *C. graecum* in multiple classes from Ian Robertson, David Richards and others, *C. cilicium* in Class A10 (Steve Walters), *C. mirabile* in Classes A12



Classes A12 (*C. mirabile*) and A13 (*C. purpurascens*) at the Birmingham Show



Class A14 (*C. colchicum*) at the Birmingham Show



C. hederifolium shown by Steve Walters, winner of Class A6



C. graecum subsp. *graecum* shown by Ian Robertson. Winner of Class B1

and B7 (Martyn Denney, Roy Skidmore, Bob Worsley and Duncan Gates) and *C. persicum* (Birmingham Botanical Gardens).

We welcomed several novice exhibitors, with Bob Worsley winning three classes. Any other members, new or not so new, are encouraged to gain experience of exhibiting this way.

The photographic sections were of high quality but I would like to see more new entries, particularly of plants in the wild to help us all understand their natural environment better.

Class Results

14 exhibitors, 143 competitive entries.

Details of the results for all classes can be found on the Society's website: www.cyclamen.org/shows

Judges: Vic Aspland, Melvyn Jope and Trevor Wiltshire.



C. mirabile 'Tilebarn Nicholas' shown by Robbie West. Winner of Class C4 and the Erna and Ronald Frank Trophy for best plant in the Novice Section

Trophy Winners

Buglass Salver (best plant in show)
– Ian Robertson for *C. graecum* subsp. *anatolicum*, Class A3.

Buglass Bowl (best *C. graecum* in show)
– Ian Robertson for *C. graecum* subsp. *anatolicum* CSE98373D, Class A3.

Nick Carter Memorial Trophy
(best foliage plant in show) – Steve Walters for *C. purpurascens*, Class A13.

James Mars Trophy (best Society-collected plant or progeny of such plants)
– Ian Robertson for *C. graecum* subsp. *candicum* CSE96466, Class A19.

Oylat Trophy (best *C. intaminatum* in show)
– Ian Robertson for *C. intaminatum* ex CSE01068T, Class A11.

Graham Simpson Memorial Trophy
(best *C. purpurascens* in show)
– Steve Walters, Class A13.

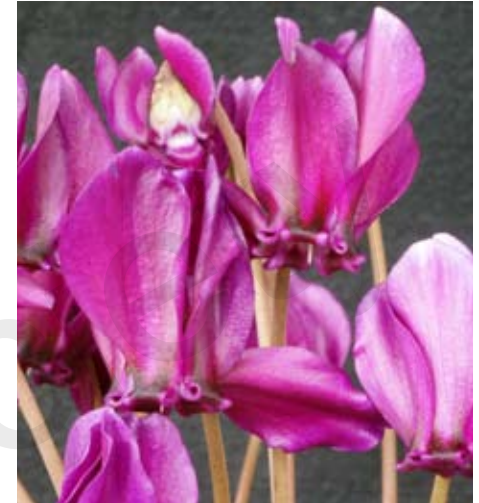
Erna and Ronald Frank Trophy (best plant in Novice Section) – Robbie West for *C. mirabile* 'Tilebarn Nicholas', Class C4.

Wisley Autumn Show, 11 October 2014

Tim Murphy writes: Pat Nicholls took first place in Class A3 with a beautifully grown plant of *Cyclamen graecum* subsp. *candicum* with clean, crisp flowers held well above attractively patterned foliage. Pat also took second place in this class with a plant of *C. graecum* subsp. *anatolicum*. Ian Robertson won first place in Class A4. His *C. graecum* really



Flowers from Pat Nicholls's *C. hederifolium*, winner of Class A5



Flowers from Vic Aspland's *C. hederifolium* 'Red Sky', winner of Class B3

stood out: the dark pink flowers and deep green leaves with light green veining and crinkly edges made an attractive display. Plants of *C. hederifolium* with intensely dark flowers continue to fascinate me and the winning plant in Class A5 owned by Pat Nicholls had flowers which were perhaps the darkest shade of purple I have ever seen. Pat had originally obtained the plant from Jan Bravenboer. Ian Robertson took second place in this class and also the Elizabeth Moore Trophy for Best *C. hederifolium* in Show. For some this was a controversial decision, but more on that from the judges on p 84 after this report.

Class A6 was won by Lee and Julie Martin with a lovely example of *C. hederifolium*. Their plant filled its pot with dozens of green-tipped, long, silver leaves. An unplaced plant in this class caught my eye: Melvyn Jope's *C. hederifolium* with long, plain, light-green leaves was something I had never seen before. In Class A8 (*C. cilicium* shown for flower), Ian Robertson's lone *C. cilicium* forma *album* was awarded a first. In Class A12 Steve Walters took first place with a very attractive *C. purpurascens*, which had

filled its pot with strikingly marked silver and green leaves and well deserved the Foliage Salver – this same plant had already won the Nick Carter Memorial Trophy and the Graham Simpson Memorial Trophy at the Birmingham Show. Melvyn Jope's *C. rohlfsianum* took second place in the class. In Class A13 (Any cyclamen collected on a Cyclamen Society Field Study), Ian Robertson's *C. graecum* subsp. *candicum* CSE96466 took first place and was also awarded two trophies: The Mick Reed Bowl for best *C. graecum* in show and The Maslin Cup for best plant in show.

In Class B2, David Sissons's *C. graecum* subsp. *candicum* was awarded a first. David's plant had particularly attractive foliage; each leaf had green and silver zonal markings with silver netting around the outside edge. Steve Walters took first place in Class B4 with a lovely example of *C. hederifolium* 'Tile Barn Shirley'. I never tire of seeing good examples of this plant with each leaf having an almost metallic cream centre set off by a dark green edge. Roy Skidmore took second place with a plant of *C. hederifolium*



C. graecum subsp. *anatolicum*, winner of Class A15. This plant was grown from seed (sown 5 October 2003) by Ian Robertson

subsp. *crassifolium* 'Silver Shield'. In Class B7 (*C. mirabile* shown for flower), Vic Aspland's *C. mirabile* CSE003949 took first place and was awarded the Ivan and Elsie Willett Plate. Second place went to an attractive plant of *C. mirabile* 'Tile Barn Anne', but unfortunately the exhibitor forgot to write their name on the entry card. Whoever you are, it was a lovely plant.

Paul Whitlock took first place in Class B10 (Any other species, foliage) with a striking example of *C. persicum*. Second place went to Vic Aspland's *C. coum* with a dark green Christmas tree pattern over silver leaves. In the Novice Classes, Class C4, first place and the



Cyclamen purpurascens x *persicum* 'Odorella', shown by Martyn Denney. Winner of Class A10



C. mirabile CSE003949 shown by Vic Aspland. Winner of Class B7 and the Ivan and Elsie Willett Plate for best *C. mirabile*

Maurice Dryden Award went to Phöbe Friar for a plant of *C. persicum* 'Bellisima'.

Class Results

18 exhibitors, 126 competitive entries.

Details of the results for all classes can be found on the Society's website: www.cyclamen.org/shows

Judges: Roger Brook, Martyn Denney, and Trevor Wiltshire

Trophy Winners

Maslin Cup (best plant in show) – Ian Robertson for *C. graecum* subsp. *candicum* CSE96466, Class A13.

Mick Reed Bowl (best *C. graecum* in show) – Ian Robertson for *C. graecum* subsp. *candicum* CSE96466, Class A13.



C. hederifolium shown by Ian Robertson. Winner of the Elizabeth Moore Trophy for best *C. hederifolium*



C. hederifolium shown by Lee and Julie Martin. Winner of Class A6

Ivan and Elsie Willett Plate (best *C. mirabile* in show) – Vic Aspland for *C. mirabile* ex CSE003949, Class B7.

Elizabeth Moore Trophy (best *C. hederifolium* in show) – Ian Robertson, 2nd in Class A5.

Foliage Salver (best foliage plant) – Steve Walters for *C. purpurascens*, Class A12.

Kissamos Trophy (best *C. confusum* in show) – not awarded.

Maurice Dryden Award (best plant in Novice Section) – Phöbe Friar for *C. persicum* 'Bellisima', Class C4.

Banksian Medal Totals 2014

The Banksian Medal is awarded by the Royal Horticultural Society to the exhibitor who, through the course of a year, earns the most points in all four Cyclamen Society shows.

Winners of the Banksian Medal are not eligible to receive it during the following two years. For this reason, in 2014 Steve Walters and Duncan Gates were ineligible.

The Banksian Medal was won in 2014 by Ian Robertson.

The top five scoring exhibitors were as follows:

Ian Robertson	212
Steve Walters	168
Duncan Gates	105
Vic Aspland	62
Pat Nicholls	44



Classes A13 and A14 at the Wisley Autumn Show



A leaf from *C. hederifolium* 'Tilebarn Shirley', winner of Class B4. Shown by Steve Walters



Paul Whitlock's *C. persicum*, winner of Class B10

Novice Totals

Details of the Novice Totals at the end of 2014 can be found on the Society's website: www.cyclamen.org/shows

Judges' explanation

It is very unusual for judges to explain their decisions to award prizes or trophies but the controversy and discussions about Class A2 (3-pot foliage, distinct) and the Elizabeth Moore Trophy (Best *C. hederifolium* in show) at the Wisley Autumn Show makes it warranted on this occasion.

The definition of 'distinct' as set down by the Society's Show Sub-Committee has always required the plants each to be of different taxa – even if this is only at cultivar level. Until 2010 this definition was printed in the show schedule for both classes but at that time due to space considerations it was removed. We used this definition when considering the five entries in Class A2, and three did not comply. The situation was further complicated by the fact it was thought initially that only one complied and we awarded only a 2nd prize to that entry. The Show Secretary received an appeal about the judging of this class and the definition of distinct used, on the basis that the schedule was not clear and some entrants had simply used the Alpine Garden Society definition which merely requires plants to look different.

We were instructed to re-judge Class A2 and this was done but only on the basis of the quality of the foliage in the three pots for each competitor; not considering whether they were different in any way.

The Show Sub-Committee has now decided to remove the requirement for plants in the 3-pot classes to be distinct from each other as you will see in the show schedules sent with this journal.

The Elizabeth Moore Trophy is awarded to the best *Cyclamen hederifolium* in the show. The award is not specifically for flower or foliage, but for overall effect – though it is not unusual for the best flowering plant in Class A5 (*C. hederifolium* shown for flower) to take the trophy. However, the award plant can be in any class where it is a valid entry. On this occasion we awarded the trophy to the plant that took second place in Class A5. The plant that had taken first prize had only marginally better flowers but no foliage and in our opinion the second-placed plant was better when considered for overall effect.

Roger Brook, Martyn Denney
and Trevor Wiltshire

Cyclamen as bedding plants

Richard Bailey

The use of *Cyclamen persicum* as bedding plants has been mentioned in this *Journal*, but in warmer climates than here in Britain – in Valencia, Spain (2004, vol 28, p46) and Lisbon, Portugal (2014, vol 38, p4). I would stress that by 'bedding' I mean temporary, mass displays ('carpet bedding' to use the Victorian phrase), in the open ground, just as you might use wallflowers or petunias, not use in mixed borders or containers.

The plants used have always been large-flowered cultivars of *C. persicum*. In suitable climates these are ideal for winter displays offering spectacular, bright colours when these are scarce outside.

References to the use of *C. persicum* as a bedding plant are rare. Blasdale (1952) records their use near San Francisco Bay, where plants withstood occasional frosts over 15 years and notes their use elsewhere in California. More recently, de Bont and Grimshaw (in Mathew, 2013) note that "cyclamen are popular as bedding plants in the winter period" in Italy, southern France and Japan and are becoming more popular as such in northern Europe. They list several series that are promoted as garden plants including one, a small-flowered F1 series, 'Melody Outdoor', specially bred for outside use.

I have seen cyclamen used as bedding at only one site in Britain – in Surrey, in the winters of 2011/12, 2013/14 and 2014/15. Scarlet-flowered plants were used in two borders each side of an entrance driveway. Plants were set some 9 inches (approximately 23 cm) apart

and some 140 plants were used in each bed. In 2013 I first saw them in October; they were replaced by hyacinths and polyanthus by March 2014 and later by pelargoniums. By October 2014 scarlet cyclamen were back.

Blasdale notes that "Outdoor culture does not always yield the fine specimen plants to which we have become accustomed" – but still reports fine plants flowering from December until April, and withstanding frost, in California. In both Lisbon and Surrey growth was comparable with, or better than, that of most plants growing outside in containers or mixed borders. However, a bed seen in a park in Brisbane, Australia, during September 2007, while attractive contained somewhat poor plants.

At all sites the appearance at a distance was striking. As a winter bedding plant, at least in southern Britain, *C. persicum* surely deserves attention. What other plant offers abundant scarlet flowers in the outside garden for Christmas?

References

Blasdale, WC (1952): *Cyclamen Persicum. Its Natural and Cultivated Forms* Stanford University Press, Stanford, California.

Mathew, B (ed) (2013): *Genus Cyclamen: In Science, Cultivation, Art and Culture*. Royal Botanic Gardens, Kew and The Cyclamen Society.



Cyclamen persicum as a bedding plant in Surrey, November 2014. Photograph by Richard Bailey

The Cyclamen Society Accounts

Keith Fry, Treasurer

When many people read the word “accounts”, their eyes glaze over, their brain slows down and their spirit sags. Reading accounts is like watching paint dry or plaiting fog! People know that they are important, but they are sometimes too complex to understand unless you are an accountant. My work as Treasurer over the last couple of years has been to try to demystify and simplify the accounts and to try to make them accessible to everyone. This is to aid understanding of what is, in reality, a very important component of the work of the Society. Not only is it a requirement, as a charity, to keep accurate accounts but it is essential that the Trustees (ie the Society's Committee) know what money is available when it comes to spending.

The financial year of the Society runs from 1 July to 30 June of the following year. The reason for this is largely historical and relates to the Annual General Meeting in September when the accounts need to be examined and the Treasurer has to explain what has happened over the financial year, but in reality it can be at any time.

The accounts for 2013 to 2014 are in two sections: one showing what comes in and what goes out, and the other what money we have got.

In the first section, we have two funds. The General Fund is for the day to day work of the Society and the Buglass Research Fund is a special fund which provides money for particular projects such as the book *The Genus Cyclamen*, and the field work. This fund is named after Fred Buglass who was a founder member of the Society and who left a substantial legacy in his will.

The income is split into sections so that the Trustees know what each activity of the Society brings in. The expenditure is also split similarly into sections so that the Trustees know what each activity costs. For example, the Seed Distribution brings in over £3,000 and costs over £600, so is a net contributor to the Society; the Shows cost over £1,800 and yield just over £1,000, so is a net cost. All the income and expenditure are added giving a total income of just under £30,000 and a total expenditure of just over. So over this financial year as a whole the Society has spent more than it received.

It is worth looking at the sections called “Interest” (in the Income section) and “Investment gains” (last-but-one line on that page) at this point. The Society has a lot of money (over £200,000) in banks and investment houses which pay interest and which also increase or decrease in value. The interest is recorded as income and the increase or decrease in value is recorded as investment gains or losses. Losses are recorded as figures in brackets. When the Buglass Fund interest and the investment gains are taken into account, the Society took in more money than it used to the tune of over £6,000.

In the Balance Sheet section is the part called “ASSETS” or what money we have, and the “REPRESENTED BY” section which shows which fund the money is in. We have two deposit accounts and two investment accounts, one of each for both the General Fund and the Buglass Research Fund. The deposit accounts are with Virgin and the investments are with a company called M & G which invests the money in a range of companies so that there is an element of risk-spreading. There is an approximate 60:40 split between money held in investments and money held in deposit. This is an arbitrary figure and has been decided by the Trustees, but is designed to give a balance between security, accessibility and income.

The amount of money the Society has is the “Total Assets” and must agree with the amount of money in the funds. The funds show what we started the year with, how much has been added or taken away by the activities of the

Society and what will be carried forward to start the accounts for next year. In all the accounts the figures for the previous financial year are shown so that everyone can see how the finances are changing year by year.

Seed Distribution

Roy Skidmore writes: Seeds of the following are still available (also to the USA):

1, 2, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 101, 102, 103, 104, 105, 106, 107, 109, 111, 112, 113, 114, 116, 117, 118, 119, 120, 121.

All of the above are available at 50p a packet. Please list as many alternatives as possible, as many varieties are in short supply.

Also available (limited to one offer per member) are:

Offer One – 6 packets Society's choice £2

Offer Two – 9 packets Society's choice £3

Our USA members must send a small seed lot import certificate with their order (see p 36 of the June 2014 *Journal* for details). This is vitally important as delays will be caused if this information is not sent.

As I write this, the main seed distribution for 2014 has been completed. My thanks go to all the seed donors who, without their donations, the distribution could not go ahead. It was pleasing to see most codes were available this season.

If members do have any seed of *C. parviflorum*, *C. hederifolium* 'Tilebarn Shirley' or *C. purpurascens* 'Album', I would appreciate any donation which could be passed on for future distributions.

Once again can I pass on my personal thanks to all the members who volunteered and assisted in seed packing and order processing for 2014. Their help was invaluable in attaining the success of this year's distribution.

CSE seed

The 2014 CSE seed donation was poor this year. Orders received outweighed the availability of seed which will mean there will not be a second distribution.

Payment

Payment will be accepted either by limit cheque or, for sums of £2 or less, in the form of UK postage stamps. Individual stamps not above 1st class letter rate, please. Orders together with payment should reach the following address by 6 February 2015: Roy Skidmore, [REDACTED].

UK members: please enclose a suitable SAE (**large** letter stamp). European members: please include an extra £3 to cover postage. For Australia, Canada and USA, include an extra £3.50 for postage. The Society introduced these postage charges to overseas members in 2013. Unfortunately some orders I received for this year's seeds didn't include this cost. Please can you ensure the postage cost is included otherwise orders will no longer be processed and forwarded on.

For overseas members, PayPal can be used for seed and postage payments. PayPal is available from the Society web site www.cyclamen.org. Please indicate on your order that you will be paying by PayPal.

Minutes of the AGM of The Cyclamen Society

Held at Birmingham Botanical Gardens at 12.30pm on Sunday 21 September 2014

Present

The President, Secretary, Treasurer and 37 members.

Apologies for Absence

Apologies had been received from Brian Mathew and Peter Moore.

1. Minutes of the AGM 2013

The minutes of the 2013 Annual General Meeting had been published in the *Journal*. The adoption of the minutes as a correct record of the proceedings of the Society was *proposed* by Peter Jones, *seconded* by David Richards and carried unanimously.

2. Matters arising from the Minutes

There were no matters arising.

3. President's Report

Vic Aspland reported as follows: I would like to begin, as last year, with the Society's 'Big Book'. Three publicity events were organised at Wisley: at the Winter and Spring Shows, large displays of many of the original prints used within the book were staged by Martyn Denney and yours truly. In the library at Wisley, the watercolour paintings of cyclamen commissioned by the Society for inclusion in the book were put on display during February and March. A note in the Visitors' Book read: 'They inspire me to join the Society'. I am very grateful to Melvyn Jope, our RHS Liaison Officer for all his behind-the-scenes work which facilitated this display. At the Winter Show, Brian Mathew was present for a book signing session, but was unable to attend the Spring Show due to a serious medical problem. He is now fit and well again, and I wish him well for the future.

During 2014, the Society staged a Field Study in the Lebanon to study *Cyclamen libanoticum* and, in

the June *Journal*, the results of the 2013 study of *C. colchicum* in Georgia were published. That these studies were possible is largely due to the diligence and persistence of Martyn Denney in liaising with all of the relevant authorities, and his careful planning thereafter. Once again the Society owes Martyn a debt of gratitude.

Since the 2013 AGM, the Society has been without a Show Secretary. Roger Brook, with his extensive experience of competitive plant shows, stepped into the breach to take the post of Assistant Show Secretary (Midlands) and acting Show Secretary, and Paul Whitlock became Assistant Show Secretary (South). Needless to say, the shows continued to be run efficiently. I am grateful to them both, but would like to thank Roger particularly for the much unseen work he does in support of the shows. I am pleased to announce that we have a volunteer for the post of Show Secretary: Maurice Jackson and I look forward to his election later in this meeting.

While on the subject of shows, I would like to acknowledge the support of the many members involved. On arrival at each event, a skilled team swings into action. The show is set out, all of the various necessary tasks are carried out throughout the day, and at the end everything is speedily demolished. Everyone in the team knows their part and carries it out with enthusiasm. This enthusiastic teamwork is one of the great strengths of the Society, at shows and elsewhere. To all of you, my thanks.

Some members of the team have experienced health problems during the past year, but have continued to perform their usual roles. I am particularly grateful to Peter Jones, Pat Maslin, Barry Maslin and Keith Fry for their support.

The annual Seed Distribution had another successful year, but as usual, the demand for less-common species and cultivars exceeded supply. If you have seed of any of these, even in small quantities, it is not too late to send it to Roy Skidmore. Thank you Roy for your work.

In England, the Midlands Group continues to thrive, but the South-East Group is inactive at the moment. I hope that it will soon regain momentum. In Japan, Naoki Yokoyama continues to co-ordinate

activities and maintains a flourishing membership. Thank you Naoki.

Once again, I wish to record my gratitude for all of the work done in support of the Society by the Officers, Committee Members and the many other people who contribute to its success.

4. Secretary's Report

The Secretary referred to the new eight-page 'species leaflet' that had been published by the Society, with text written by Vic Aspland. He said that there was no need for members to deplete the stocks in the holders around the show as every member would receive a copy of the leaflet with the December 2014 *Journal*.

5. Treasurer's Report

The Treasurer presented the accounts for the year ending 30 June 2013, which had been circulated. He referred to the apparent anomaly in the income from subscriptions and explained that subscription income had not in fact fallen. Previously the subscriptions had been reported by calendar year and he had changed this so that the income was reported during the accounting year in which it was received. He also thanked the Society's Independent Examiner for checking the accounts and for his guidance.

The adoption of the accounts was *proposed* by Barry Maslin, *seconded* by Ian Nex and carried unanimously.

6. Election of Officers and Committee Members

The Secretary said that the post of Show Secretary was vacant and one nomination had been received for Dr Maurice Jackson, who was willing to stand. His nomination had been *proposed* by Vic Aspland and *seconded* by Roger Brook. His election was carried unanimously.

No nominations had been received for any other post and all officers had indicated that they were willing to remain in office. Their election en-bloc was *proposed* by David Richards, *seconded* by Joan Beasley and carried unanimously.

Committee

The Secretary explained that Duncan Gates and

Peter Jones were retiring from the Committee as their three-year term had expired. Nominations had been received for Roger Brook (*proposed* by Vic Aspland and *seconded* by Sonja Morris) and Paul Whitlock (*proposed* by Phöbe Friar and *seconded* by Trevor Wiltshire), who were willing to stand. Their election was carried unanimously.

7. Appointment of an Independent Examiner

Peter Hill had agreed to remain as the Society's Independent Examiner. His appointment was *proposed* by Brian Walker, *seconded* by Arthur Nicholls, and carried unanimously.

8. Any Other Business

Vic Aspland referred to a proposal to hold a joint conference with the Scottish Rock Garden Club and asked for an expression of interest from those who might attend. Ten members expressed an interest.

Roy Skidmore spoke about the seed distribution and requested assistance from members with making up seed packets.

Brian Walker raised the matter of seed from plants collected during Society field studies and a discussion took place about the variable and reducing quantity of this as plants became older.

Trevor Wiltshire, the Society's Registrar of Cultivar Names, referred to the series of articles he had been writing for the *Journal*. He said that these articles were limited only by the availability of good quality photographs of cultivars that had not yet been featured and appealed for members to forward pictures to him.

The President said that the Society's Committee had put forward two long-standing members to be confirmed as Honorary Members. Chris Clennett (*proposed* by Melvyn Jope and *seconded* by Keith Fry) and Martyn Denney (*proposed* by Vic Aspland and *seconded* by Paul Whitlock). He spoke about the work that both candidates had undertaken for the Society over a period of up to 20 years. Both candidates had their Honorary Membership confirmed unanimously.

The meeting closed at 12.59pm.

The Society's Officers

President and Publicity Officer:

Vic Aspland, [REDACTED]
[REDACTED]

Vice-Presidents: Brian Mathew VMH, MBE,

[REDACTED]

Peter Moore, [REDACTED]
[REDACTED]

Committee Chairman: Richard Bailey,

[REDACTED]

Secretary and Editor: Martyn Denney,

[REDACTED]

(Chairman, Research Sub-Committee)

E-mail: secretary@cyclamen.org

E-mail: editor@cyclamen.org

Membership Secretary and Publications

Secretary: Arthur Nicholls, [REDACTED]
[REDACTED]

E-mail: membership@cyclamen.org

Treasurer: Keith Fry, [REDACTED]
[REDACTED]

E-mail: treasurer@cyclamen.org

Show Secretary: Dr Maurice Jackson,

[REDACTED]

West Midlands WV3 9LT

E-mail: shows@cyclamen.org

Librarian: Janet Aspland, [REDACTED]
[REDACTED]

Seed Distribution Manager:

Roy Skidmore, [REDACTED]
[REDACTED]

E-mail: seeds@cyclamen.org

Committee Members

Retire in 2015

Richard Bailey, [REDACTED]
[REDACTED]

Dr Phöbe Friar, [REDACTED]
[REDACTED]

Melvyn Jope, [REDACTED]
[REDACTED]

(RHS Liaison Officer)

Retire in 2016

Barry Maslin, [REDACTED]
[REDACTED]

Pat Maslin, [REDACTED]
[REDACTED]

Ian Robertson, [REDACTED]
[REDACTED]

Dorset SP7 9EX

Retire in 2017

Roger Brook, [REDACTED]
[REDACTED]

(Conference Organiser)

E-mail: conferences@cyclamen.org

Paul Whitlock, [REDACTED]
[REDACTED]

Other Responsibilities

Registrar of Cultivar Names:

Trevor Wiltshire, [REDACTED]
[REDACTED]

E-mail: registrar@cyclamen.org

Curator of the Society's Herbarium:

Chris Clennett, [REDACTED]
[REDACTED]

(Chairman, Publications Sub-Committee)

E-mail: herbarium@cyclamen.org

Scientific Advisor: Dr Stephen Jury,

[REDACTED]
[REDACTED]

Japan Co-ordinator:

[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]

Index to Volume 38

Page numbers up to 44 are June, 45 and over are December

C. africanum 6, 54

C. alpinum 39-40

C. cilicium 54, 56-58

C. colchicum 18-21, 50-52, 63, 79

C. confusum 39

C. coum 9, 12, 38-40, 47, 62, 64, 67-69

C. creticum 42, f. *pallide-roseum* 41-42

C. cyprium 62-63

C. elegans 55

C. graecum 3, 5-7, 52-53, 70-76, 77, 80, 82

C. hederifolium 6, 26, 27-33, 34-35, 39, 42-43, 47, 49, 52, 80-81, 83, 'Red Sky' 81, 'Tilebarn Shirley' 84

C. intaminatum 3, 47, 78, 'Shaggy' 48

C. libanoticum 1, 8-17, 40, 41, 43, 61-63, 64

C. maritimum 70-76, 77

C. mirabile 47, 78, 82, 'Tilebarn Nicholas' 78, 80

C. neapolitanum Tenore 6, 54

C. persicum 9-13, 15, 42-43

C. persicum 62, 64-67, 84, cultivars 4, 85

C. pseudibericum 39-40, 42, 62

C. purpurascens 18-21, 26, 49-50, 78-79

C. repandum 23-25, 26, 42, 59-60

C. rhodium 42-43, subsp. *peloponnesiacum* 42, subsp. *vividum* 42

C. rohlfianum f. *album* 48

Accounts 86-87

Albania 26

Alboff, Nicholai Michailovich 18, 55

Algeria 54

Annual General Meeting 2, 88-89

Association for the Protection of Jabal Moussa 9, 13, 17

Banksian Medal 83

Barbey, William 54-55

Bedding plants 85

Boissier, Pierre Edmond 53-55

Buhse, Friedrich 55

Candolle, Augustin Pyramus de 53-54

Committee 90

Corfu 26, 59-60

Corsica 26

Crete 70

Croatia 22-25, 26

Cultivation 56-58

Cyclamen Society Conference 2, 46-47

Cyprus 70-76

DNA 18-21, 61-63, 70-76

Fasciation 48-49, 56-58

Georgia 18-21, 47, 50-52

Greece 6, 47, 52-53, 70-76

Genus Cyclamen in Science, Cultivation, Art and Culture 7, 8, 39

Hartmann, E 8, 13

Heldreich, Theodor von 54

Hildebrand, Friedrich 8, 18

Iran 55

Italy 34-35, 49-50

Jabal Moussa 8-17, 62

Lebanon 8-17, 62, 64-69

Link, Johann Heinrich Friedrich 5-7

Midlands Group 2, 46

Officers 90

Propagation 27-33

Publications 2

Reuter, Georges François 54

Rhodes 70-76

Seed Distribution 36-37, 87

Shows 38-43, 74, 75, 77-84

Smith, Imogen 50-52

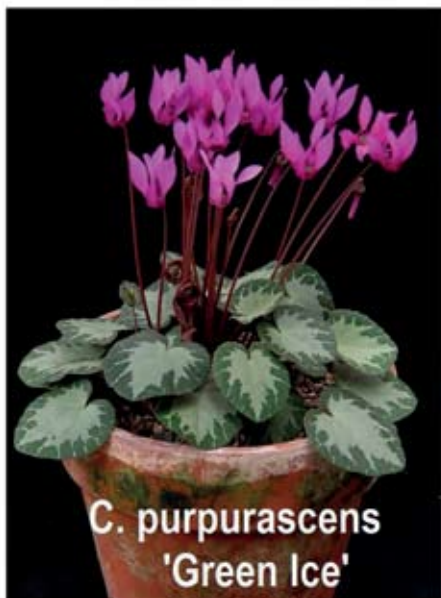
Southeast Group 2

Tubers 48, 66

Turkey 54, 70-76

Willdenow, Karl Ludwig 6

Zakynthos 52



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