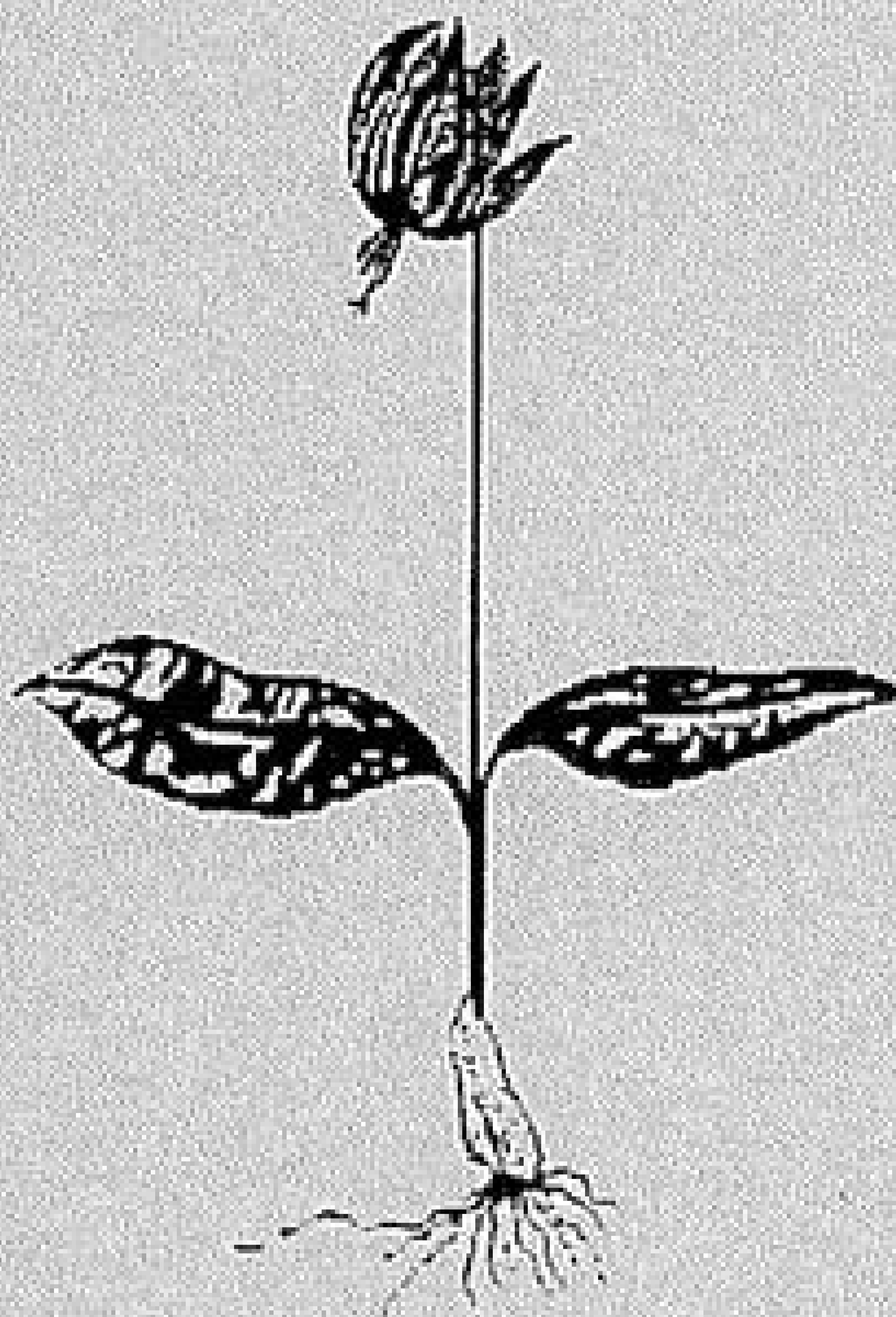


THE BULB
NEWSLETTER



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The Bulb Newsletter No. 6

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The Dunblane Bulb Display 1994

This year I had the pleasure of being invited to speak at the Scottish Rock Garden Club's* 'Dwarf Bulb Display', held at Dunblane on 19th February and organised by Sandy Leven of the SRGC's Dwarf Bulb Group. This show is unusual in that it is completely non-competitive, thus encouraging people to bring along anything bulbous (in the broadest sense), even if it is just one specimen in a pot. This is an excellent idea since it results in a good number of exhibits and also, if this year's show is fairly typical, means that there are some rarely-seen plants which are perhaps not up to competitive show standard. Some growers do not enjoy the worries associated with trying to attain on-the-day perfection but are quite happy to bring along what they have on an informal basis, so this really is a great idea. Both types of show are valuable, of course, and other growers revel in the element of competition which results in the magnificent specimens and displays which we all enjoy so much at shows around the country. The Display included many *Crocus* species including the lovely and rare *C. michelsonii*, the finest and largest *C. reticulatus* ssp. *reticulatus* I have seen, in the wild or in cultivation, its black-anthered subspecies *hittiticus*, a large pan of the seldom-seen *C. alatavicus* and some very nicely marked *C. sieberi* ssp. *sieberi* and a good pot of *C. cvijicii*. *Corydalis* were very much in evidence, particularly the Central Asiatic 'Leonticoides group' species such as *C. darwasica*, *C. firouzii* and *C. popovii*, it was noticeable to a southerner that here in the cooler climate of Scotland they tended to be much more compact and in character than they usually are in the south of England; I find it very difficult to stop their fleshy stems elongating rapidly so that they are spindly, loosely-flowered and eventually fall over.

* The Scottish Rock Garden Club can be contacted via The SRGC Membership Secretary, Mrs J.Thomlinson, 1 Hillcrest Road, Bearsden, Glasgow, G61 2EB. Ordinary Membership costs £7.00 per annum for two copies of the journal 'The Rock Garden' and participation in the annual seed list which contains over 4000 species of plants, including many bulbs. The SRGC has several shows spread out during the year, and Regional Groups which arrange talks and garden visits. The latest part of the Journal has, as its front cover, the fascinating purple-spotted Himalayan *Iris kemaonensis*, and there is usually some bulbous interest to be found inside.

Colchicum, Merendera and Androcymbium Notes

At this year's Dunblane Bulb Display, mentioned above, I noted some fine plants of the striking little spring-flowering *Colchicum kesselringii* which produces several white flowers conspicuously striped reddish-purple along each of the outer perianth segments. This is quite variable in the wild and some forms which I have seen lack the stripes but have a greyish or violet stippling instead. The only yellow-flowered *Colchicum*, *C. luteum*, was there as well, not a plant which I find very easy to grow for more than a year or so. These are both from the mountains of Central Asia, quite widespread and sometimes occurring in the same region, and I was very excited by a plant exhibited by Edinburgh Botanic Gardens which was thought to be a hybrid between the two. This had all the appearance of *C. luteum*, with a stout 'cylinder' of young leaves, out of which protruded sizeable funnel-shaped flowers but, instead of the deep rich yellow colour of *C. luteum*, this had flowers of a lovely soft sulphur-cream with a faint speckling of grey on the tube. From its appearance I could accept that it is a hybrid, although a label saying that it was a pale form of *C. luteum* would be almost equally convincing. Possibly a look at its chromosomes, and those of the two supposed parents, might clarify this point but I imagine that the RBG will not be too keen to have the root-tips chopped off for this purpose until there is more of it! It was sent to Edinburgh as a wild collected plant and, to discourage everyone from writing to 'The Botanics' for a spare corm, I must tell you that there was only one in the pot! (see also next item). Also at Dunblane was a small *Merendera* of some considerable interest and ornamental value. The *Merenderas* are very like *Colchicums* but their flowers have no proper perianth tube, the six segments being held loosely together so that there only appears to be a tube; if the segments are pulled slightly the whole flower falls apart, and this often happens in windy weather in the wild, so that they can look very messy. They are most suited to cultivation in a bulb frame or alpine house, so this problem does not arise so much in captivity. The interesting point about this particular plant is that it originated in Jordan, near Petra and I am not aware that it has been recorded that far south. It is very common in Turkey, the Caucasus and north-western Iran and is quite variable in flower colour from white to deep pinkish-lilac; there are usually three leaves per corm. This particular plant had white flowers and was brought back to Edinburgh by Alf Evans and Harley Milne, who said that it was common in the area. Alf tells me that he saw a photograph of a similar-looking plant in a wild flower book of the region, and this was captioned *Colchicum triphyllum*. Could it be a case of misidentification in

the book, or do both species, *C. triphyllum* and *M. trigyna*, grow in the same area I wonder? Karin Persson, a botanist at Gothenburg Botanic Garden regards *Merendera* as inseparable from *Colchicum*, some others disagree and keep the two separate. Whichever view is correct, the merenderas do constitute an easily-recognised group and, for the purposes of communication in an item such as this, it is convenient to use 'Merendera' for those plants having a split perianth. The same applies to *Chionodoxa*, which Dr Speta in Austria regards as inseparable from *Scilla*. It is actually much more informative to talk about *Chionodoxa luciliae*, which gardeners immediately have a mental picture of, than *Scilla luciliae*, even if botanically there might be some good reason to argue the case for 'sinking' *Chionodoxa*.

In BN 5 (page 2) the genus *Androcymbium* was mentioned and, shortly after reporting on the article about the South African *A. melanthioides*, I found that the Mediterranean *A. gramineum* (mainly North Africa) was pushing up into growth. There is nothing spectacular about this but it is an interesting little plant, very suitable for a pot in the unheated glasshouse where it can be inspected closely. The very similar *A. europaeum*, of which there are several different clones at Kew, is certainly quite an attractive plant and appears to keep its dwarf stature in cultivation. This is confined in the wild to south-eastern Spain and the Kew plants are part of a conservation project, hence the interest in maintaining diversity in the collection of corms which are being grown there.

***Colchicum luteum* X *C. kesselringii* again**

A letter received only a few days after I had returned home from Dunblane could not have arrived at a more opportune moment, when this hybrid *Colchicum* was still fresh in my mind. The letter, from Fred Feigel in Dresden, contained a dried specimen of a small pale yellow *Colchicum* which he thought might well be a cross between these two species. The plant flowered in 1993 from seeds sown in 1986, collected from a plant of *C. kesselringii* which was growing alongside *C. luteum*, both in flower at the same time. By a curious coincidence it seems that this hybrid, which I had never heard of until this year, has now been recorded as occurring both in the wild and in cultivation. For those who think that they would like to repeat the cross, it obviously takes about seven years to flower from seed, no time at all compared with my efforts at *Erythronium idahoense* (16 years!).

Curtis's Botanical Magazine/Kew Magazine

This extraordinary Magazine was first published in 1787 and has continued in an unbroken series ever since, although sometimes on the brink of disaster. The colour plates were all hand-coloured until 1948, which is amazing when one considers that the sales at the beginning were 3000 copies per month! It is probably the longest-running periodical with colour illustrations and is a wonderful record of the world of flowering plants. Many of the species depicted are described for the first time so that the specimens accompanying the paintings are the type specimens. Although the whole of the *Botanical Magazine* is a miscellany of plants from all parts of the world, from time to time there are themes. Last year the Editor, Vicky Matthews, left to take on a new post with the RHS as Editor of *The New Plantsman* and I am now editing the 'Bot. Mag.' on a part-time basis. In view of this I decided to indulge myself, just for the first part which I edited, Vol 11, Part 1, and choose six monocots to grace its pages [there was also the Kew Monocot Conference which had something to do with the choice!]. The six plates are *Allium schmitzii*, painted by Pauline Dean, *Cyrtanthus herrei*, by Gillian Condy, *Roscoea schneideriana* by Mark Fothergill, *Nomocharis pardanthina*, also by Mark, *Himantoglossum hircinum*, the Lizard Orchid, by Christine Hart-Davis and *Cyperus prolifer* by Ann Farrer. Not only does the Bot. Mag. have a wide range of plants, it shows the work of some of the world's leading botanical artists. The current part which I have just finished preparing includes an astonishing bright red *Roscoea* which has been discovered in Nepal. It is the way of things that even a venerable institution like *Curtis's Bot. Mag.* has to pay its way and so we are always on the look out for new subscribers. Anyone interested in subscribing can write to me and I will pass on details to Blackwell Publishers; alternatively write to them direct, to the Journals Marketing Manager, 108 Cowley road, Oxford, OX4 1JF, UK, or 238 Main Street, Cambridge, MA 02142, USA. Subscription rates for 1994 are £29.50 UK/Europe, \$50.00 for North America and £35.00 Elsewhere. For UK customers this represents about £1.23 per colour plate (24 per year), plus associated text and other feature articles. What value!

A new white Lachenalia, and Flowering Plants of Africa

The 1993 part of *Flowering Plants of Africa* contains colour paintings and associated articles concerning several interesting monocots, including a

newly described *Lachenalia*, *L. thomasiae*. Graham Duncan, who contributed the cultivation notes to Barbara Jeppe's *Spring and Winter Flowering Bulbs of the Cape*, and the text for *Lachenalia* in the same book, has written the account of this new species which is known only from the type locality in South Africa, in the Oliphants River Valley in Clanwilliam District, S.W. Cape. *L. thomasiae* is 12-38 cm in height with two plain (ie, unspotted) strap-or lance-shaped leaves which are tinged maroon at the base, and has a slender raceme of many small bell-shaped flowers, each carried on a long green or white pedicel (about 1.5 cm); the flowers are white with conspicuous green or brown swellings on the three outer perianth segments and have prominently protruding stamens. In addition to his knowledge of *Lachenalia*, Graham Duncan is the expert cultivator of a wide range of Cape bulbs at Kirstenbosch. He makes the remark that *L. thomasiae* has great horticultural potential as a pot plant, being attractive, floriferous and easily cultivated in a well-drained sandy soil. In addition to the above species, *The Flowering Plants of Africa* Vol. 52, part 2 (June 1993) contains illustrations of the following monocots: *Agapanthus dyeri*, 4 *Aloe* species, *Strumaria hardyana*, *Cyrtanthus carneus*, *Moraea stricta*, and *Gladiolus dolomiticus*. It is published once a year, each part containing 20 colour plates. This is a superb publication and is, in a sense, a sister magazine to *Curtis's Botanical Magazine*, but devoted to the African flora: 'The object of the work is to convey to the reader the beauty and variety of form of the African flora, to stimulate an interest in the study and cultivation of the indigenous plants and to advance the science of botany as well as botanical art'. Anyone interested in this periodical can obtain information from the Editor, Dr O.A.Leistner, The National Botanical Institute, Private Bag X101, Pretoria 0001, South Africa.

The White Watsonia

Soon after the publication of Peter Goldblatt's monograph, *The genus Watsonia* (Annals of the Kirstenbosch Bot. Gard. Vol. 19, 1989), a specimen of a white *Watsonia* was brought to me (all six feet of it on the train!) by Michael Ash of Wooton Courtenay, Somerset. The name of this plant had been clarified by Wessel Marais in 1980 when we were colleagues in the monocot unit of the Herbarium at Kew; he published it as *W. pyramidata* 'Ardernei' but, due to changes in the taxonomic treatment and nomenclature in Goldblatt's monograph, this was no longer satisfactory. In the monograph *W. pyramidata* became a synonym of *W. borbonica*, and was divided into two subspecies, subsp. *borbonica* and subsp. *ardernei*, based on differences in the position and orientation of the stamens (held at a declined angle in the former and horizontally-arched in the latter), nothing to do with the flower colour: both

subspecies normally have pink flowers. The white-flowered plant referred to above has arched stamens and is therefore a variant of subsp. *ardernei*. For horticultural purposes it does require a distinguishing name since it is not infrequently cultivated, in fact seen far more often than the pink version. Since *ardernei* was named in 1897 in honour of H.M.Arderne, the Cape Town businessman who introduced it, I have published the cultivar name for this particular clone as 'Arderne's White' (in *Kew Magazine* 11:37-40, 1994). This is a lovely garden plant, certainly hardy at Kew but not tolerant of very much frost and much better in the south-west of Britain and in milder countries. It does quite well in our garden in a rather cold part of Surrey against a warm wall but does not flower freely. It is, I believe, quite widely cultivated in Australia and South Africa. Curiously, a white *W. borbonica* has not been found again in the wild, so presumably all the plants around the world are derived from this one introduction. Alert readers will have noticed that the epithet *borbonica* refers to the Island of Reunion (Ile de Bourbon) in the Indian Ocean, whereas the genus *Watsonia* is confined to southern Africa. This was an error in 1788 when the species was first described; botanists are sometimes misled about the provenance of a plant, hence *Iris persica*, which is not to be found in Persia, *Albuca canadensis* which is South African, the English Iris (*I. anglica*, now = *I. latifolia*) which is from France, and so on (I cannot think of any more at present, but I am sure that there are plenty!). Incidentally, the code of nomenclature allows us for convenience to refer to this white *Watsonia* as just *W.* 'Arderne's White', rather than *W. borbonica* subsp. *ardernei* 'Arderne's White'.

Crocus Up-date

Chris Jones of Aberdeenshire has suggested that it would be helpful if I provided an update of *Crocus* taxa (a 'taxon' is a unit, at any level of the taxonomic hierarchy: e.g. species, subspecies, varietas, forma) which have been described since my book *The Crocus* was published in 1982. In view of the limited space in BN I cannot go into great detail but here are some details of the ones I know about, excluding cultivars. I know that more are on the way, but I must not preempt the publication of these by giving details since it would be botanically unethical. The following have been described:

C. hadriaticus forma *lilacinus* B.Mathew in Kew Mag. 3:311(1986): the lilac-flowered forms which may be found in the southern Peloponnese.

C. hadriaticus forma *parnassicus* B.Mathew in Kew Mag. 3:311(1986): the all-white form (ie, no yellow in the throat) which is known only from Mt Parnassus. [*C. hadriaticus* f. *hadriaticus* is automatically the white-flowered version with a yellow throat, very variable in the amount of

purple or brown on the outside of the tube. Var. *chrysobelonicus* and var. *saundersianus* were names used by Herbert to distinguish two varieties, based on slight differences in corm tunic and flowering time; these appear to have no firm foundation and are best treated as synonyms of forma *hadriaticus*. In the key in my Crocus book, the lilac forms will key out in Group G to *C. hadriaticus* since I was aware of them at the time it was written and made allowances in the key. Similarly, the white-throated forma *parmassicus* keys out in Group H to *C. hadriaticus* and is mentioned on page 60.

C. gargaricus subsp. *herbertii* B. Mathew in Kew Mag. 1:72(1984): The populations of *C. gargaricus* from Ulu Dağ in north-western Turkey are distinct from those on other mountains, so I provided this distinguishing name in honour of William Herbert who did so much botanical work on the genus in the early 1840s. The main differences are underground, subsp. *herbertii* having a very finely netted corm tunic and increasing very rapidly into colonies by means of stolons; the flowers are possibly also a slightly different shape from those of subsp. *gargaricus*, and a paler, less orange, shade of yellow - but I have not yet grown enough of subsp. *gargaricus* to compare them adequately; it is not nearly so easy to cultivate as subsp. *herbertii*. Subsp. *gargaricus* has very coarsely netted corm tunics and is non-stoloniferous; it is known from at least two mountains in western Turkey (Kaz Dağ and Göktepe), whereas subsp. *herbertii* is confined to Ulu Dağ. The latter appears to grow in much wetter habitats, in meadows which are at times under water from the melting snow. Both of these key out as *C. gargaricus* in Group A since I knew about the differences in the populations when the key was written.

C. goulimyii var. *leucantha*. Although this name has appeared in press, in the *Bulletin of the Alpine Garden Society* 61:318 (1993), it has not yet been 'published' in the botanical sense. I had hoped that it would appear first, with its latin diagnosis, in the Greek *Annales Musei Goulandris* in 1993 but this was not to be and I am still awaiting its valid publication. This refers to the pallid-flowered populations of *C. goulimyii* which are found on the south-eastern peninsula of the Peloponnese. The normal lilac-flowered ones on the central peninsula, the Mani, are var. *goulimyii*. The lovely robust pure white-flowered variant which is around in cultivation was an albino selection of var. *goulimyii* and I have suggested the name 'Mani White' for this. The full details of these variants of *C. goulimyii* can be found in the AGS Bulletin. In *The Crocus*, these will key out to *C. goulimyii* since flower colour was not one of the criteria used in distinguishing the species.

C. rujanensis Randjelović & Hill in Kew Mag. 7: 184(1990). This belongs to the *C. sieberi*/*C. dalmaticus* alliance and is described from southern

Serbia, in the Rujan Planina; it also occurs in Macedonia. In the original publication the following differences are noted between it, *C. dalmaticus* and *C. sieberi* subsp. *sublimis* (this is treated as a species, *C. sublimis* by the authors). In the table of characters provided, *C. rujanensis* is said to have in common with *C. dalmaticus* fairly coarsely netted corm tunics (fine in *C. sieberi* subsp. *sublimis*) and a lack of hairs in the throat of the perianth (hairy in *C. sieberi* subsp. *sublimis*); in common with *C. sieberi* subsp. *sublimis* it has finely papillose leaves (more strongly hairy in *C. dalmaticus*); it differs from both in having the bract and bracteole unequal (roughly equal in the other two species). In comparison with populations of the other two species in the region, *C. rujanensis* occurs at 400-650 m altitude, *C. dalmaticus* at 500-1100 metres, and *C. sieberi* subsp. *sublimis* at 700-1100 m. In *The Crocus*, *C. rujanensis* keys out to Group D and then, as one might expect, to *C. sieberi*. I have not yet compared it closely with the various subspecies of *C. sieberi*, but to distinguish it will require a combination of characters based on those given above, and possibly some others as well.

The following were described in a booklet *The Genus Crocus in Serbia* by N.Randjelović, D.A.Hill & V.Randjelović (Belgrade, 1990). *C. tommasinianus* forma *jeremicii* Randj. White-flowered variants of the species.

C. kosaninii forma *albidus* Randj. White-flowered variants.

C. pallasii forma *albidus* Randj. White-flowered variants, from Veliki Orljak.

C. veluchensis var. *micranthus* Randj. & Hill. Small variants of the species, not more than 8 cm in height, from alpine regions in W. Serbia & Kosovo. I have seen this plant growing on the same hillsides as *C. scardicus* above the ski lift at Popova Sapka near Tetovo, as I am sure many others have as well. It is certainly a diminutive version of *C. veluchensis* and is not at all easy to cultivate in my experience, whereas the lower altitude var. *veluchensis* is rather easy.

C. veluchensis var. *veluchensis* forma *albus* Randj. White-flowered variants.

C. rujanensis forma *diklicii* Randj. White-flowered variants.

C. x koritnicus Randj. A name for hybrids between *C. chrysanthus* and *C. biflorus* subsp. *weldenii*, they are described as having yellow flowers with brown lines, the outer segments with lines for the whole length and the inner only at the tips. The name is derived from Koritnik in Kosovo.

C. nubigenioides Randj. Hybrids between *C. chrysanthus* and *C. biflorus*

subsp. *adamii*. These have yellow flowers with 1, 3 or 5 dark lines; from the Niš region of Serbia.

C. alexandri (= *C. biflorus* subsp. *alexandri*) forma *albiflorus* Randj. White-flowered variants.

C. alexandri forma *violaceolineatus* Randj. Flowers white with 3 dark lines on the outside [forma *alexandri* has white flowers purple-stained outside, except for white margins to the segments, ie, like commercial *alexandri*].

C.x petrovicii Randj. Hybrids between *C. chrysanthus* and *C. biflorus* subsp. *alexandri*. Yellow flowers with dark lines, from the Niš region of Serbia.

Note: In the above paper, the following species are recognised as occurring in Serbia. Autumn-flowering: *banaticus*, *pallasii*. Spring-flowering: *chrysanthus*, *adamii*, *pallidus*, *weldenii*, *alexandri* [NB. some of these will be found in my book as subsp. of *C. biflorus*] *scardicus*, *kosaninii*, *tommasinianus*, *vernus*, *flavus*, *olivieri*, *rujanensis*, *dalmaticus*, *reticulatus*, *veluchensis*

In addition to all of these, three species from Turkey are about to be described, one after Erich Pasche, one after Helmut Kerndorff and his father and one after myself, which is all very flattering! There is also another subspecies of *C. biflorus* awaiting publication; none of these are being described by me, so I cannot give too many details at present. The manuscripts are all in press, awaiting the light of day. I am planning to describe one new subspecies of *C. biflorus*, to be named after Peter and Penny Watt who discovered it some years ago in southern Turkey; this is an autumnal one with lilac-blue flowers and blackish anthers, very striking.

Personalities in the Bulb World

Since Crocus has been one of the genera I have wrestled with over the years, I am starting this irregular series of mini-biographies with George Maw. George Maw (1832-1912) wrote what is perhaps one of the finest monographs ever published, certainly one of the most magnificent, packed from end to end with detail and beautifully illustrated by himself. He was a talented man in many fields; bulb enthusiasts know him for his Crocus work, but his greatest claim to fame is probably through the firm of Maw & Co. which he founded with his brother in Worcester to manufacture decorative clay tiles. The firm subsequently moved to the Ironbridge Gorge, Shropshire, in 1852 and eventually grew to be the largest decorative tile factory in the world, supported by the local high

quality clay, plenty of cheap local coal for firing the clay, and probably easy transport on the River Severn. The tiles were used throughout the British Empire, and received awards at exhibitions in London, Paris, Philadelphia and Adelaide. Maw travelled widely in search of ideas from medieval buildings and was an authority on Roman mosaic pavements; his detailed geological notes on rock formations found their way to the Geological Museum in London and he wrote many papers on the characteristics of different clays. During his travels Maw also observed and collected a wide range of plants, some of which are deposited in the Kew Herbarium, in particular *Crocus* specimens but he collected more generally and as a result several species were named after him: *Chrysanthemum mawii*, *Saxifraga maweana* and *Draba mawii*, but not a *Crocus*. Whilst in Shropshire, Maw lived at Benthall Hall which is the family home of the Benthall family and is now a National Trust property. It is possible to see crocuses still growing there in the grass but, as one might expect, these are mainly of the *C. vernus* type which are the best at surviving over a long period of time. His collection was housed in glass-topped frames and was labelled with clay tags, fired in the kilns so as to be permanent. It is said that he had a colour-code system to remind him to make herbarium specimens or collect seeds. His monograph, *The Genus Crocus*, was published in 1886 at a price of £7 12s 6d but I have been unable to find out how many were printed, and estimates vary widely. The monograph contains some 81 hand-coloured lithograph plates and delightful engraved vignettes of views related to the species under discussion, all prepared by Maw with great skill. His understanding of the genus was impressive, and modern concepts have not altered his classification a great deal, although it must be said that the basic system which he adopted was based on the earlier ones of J. Sabine in 1829 and W. Herbert in 1847. Botanists of the time appear to have often found difficulty in accepting natural variation within species but Maw clearly did not, often illustrating several variants of one species and commenting upon the degree of variability. George Maw is reported to have ended his years in a mental home. I sincerely hope that this was not as a result of his studies on the genus *Crocus*.



Phaedranassa, by Chris Lovell

This beautiful genus probably derives its name from the Greek words *phaidros* (= radiant) and *anassa* (= queen). It is a member of the

Amaryllidaceae and is South American, having its headquarters in Ecuador, where six species are endemic. Another two species come from Colombia and Costa Rica, and the genus may extend to Peru. In the wild, many species are very local but can form extensive populations. The spectacular tubular flowers are borne in umbels in late winter and early spring, followed by the lanceolate leaves. Patrick Synge, in the *Collins' Guide to Bulbs*, aptly likened *P. carmioli* flowers to *Billbergia nutans*. There are mouth-watering illustrations of many species in the *Flora of Ecuador* No. 41, by Alan Meerow, available as a separate publication (see BN3:8). A few species are in cultivation and one or two are listed by specialist nurserymen. The ones I have tackled have proved exceptionally good-tempered (famous last words!); they flower more reliably than many other South American amaryllids. They require frost-free conditions such as a cool greenhouse; they are equally happy growing in pots on a windowsill. In a typical British summer they can stand outdoors. In December-January I store the pots in an airing cupboard (this brief hot dry treatment seems to encourage *Hippeastrum* and *Sprekelia* to flower); however this is probably not essential. They don't seem too fussy about compost although it probably shouldn't be too alkaline; they have grown equally well in peat-grit or cocofibre-grit mixes. The leaves may be shed in summer if the plants get too dry. I tend to give them a monthly watering with Phostrogen (when I remember!). Probably the best species to start with is *P. dubia*. I have two clones of this species, both of which flower regularly (frustratingly at different times, making cross-pollination difficult). Each stem bears about 6 dark pink pendant flowers with a thin band of yellow around the ovary. The flaring tips of the segments are bright green, separated from the tubular portion by a tracing of pale yellow. Both clones increase steadily by offsets and will often set seed when hand pollinated. As in many *Hippeastrum* species, the seed is flat and black. It may have a short period of viability but it can germinate within days if floated on water. I grow another species, received as "sp. Ecuador" which may be *P. cinerea*. The contrast between the pink and green is even more outrageous, without the band of yellow to lessen the shock. The solitary, slightly glaucous leaf is much broader than that of *P. dubia*, and is quite handsome in its own right. Sadly, it increases more slowly and refuses to be self-fertile. Most of the species share the same colour combination, with subtle variation. However, *P. viridiflora* is quite distinct. The flowers are sulphur-yellow in the tube, with the regulation green tips. I received this plant, labelled as a mythical *Stenomesson* species, from an Indian nurseryman several years ago. It has flourished in cultivation and increased well, although again, self-sterile. Well worth a go!

New Name for a Drumstick Allium

Reinhard Fritsch, of the Institut für Pflanzengenetik und Kulturpflanzenforschung, Gatersleben, Germany is researching various aspects of Allium, including subgenus Melanocrommyum which houses many of the tall 'drumsticks' of Central Asia. In a recent paper (*Candollea* 48:417-430, 1993) he discusses the relationships between the often-cultivated and confusing species *A. aflatunense*, *A. rosenbachianum*, *A. stipitatum*, *A. altissimum*, *A. jesdianum* and their relatives. Of particular interest to bulb enthusiasts is the elucidation of the name of the plant found in commerce as 'A. aflatunense'. For some time it has been thought that this is not the true *A. aflatunense* of B. Fedtschenko which Reinhard says is a rather rare species known from only a few places in the Alatau and Fergana mountains. The commercial 'A. aflatunense' was apparently not described in the botanical sense) and he has provided the name *A. hollandicum*, since it can be traced back as a cultivated plant in Holland to the early part of the 20th Century, and is probably of hybrid origin. Extracting a little of the information from his detailed key to the species, one finds that *A. hollandicum* differs from true *A. aflatunense* in having a stem which is prominently ribbed lengthways, at least in the lower part, but is smooth in *A. aflatunense*. The latter is also a larger plant, 120-180 cm in height, with leaves up to 15 cm wide (1.5-5 cm in *A. hollandicum*). The true *A. aflatunense* is a rare plant in cultivation at present. For the Allifreaks, I have no doubt that Mark McDonough will be reporting on this paper in much more detail in *GARLIC* (see BN2:6).

Plant records: what should we record?

Bruce Muir, of Burwood, Victoria, Australia, is, like many other enthusiasts, keeping a card index of the species in his collection, recording details of when the plants or seeds arrived, who supplied them, when (in the case of seeds) sown and when germination occurred, the flowering times and so on. He suggests a note in the BN, listing all the different sets of data which growers might record about their bulbs so that anyone embarking on such a project will have a ready-made checklist to work from. This seems to me to be a good idea, so if subscribers would like to send in suggestions I will put them together and see what sort of a list we come up with. One important thing, of course, is to record any field data, if the seeds/bulbs are of known wild origin. It is also valuable to keep a note of the type of potting mix and watering regime etc. which was used, so that if a bulb succeeds or dies it is possible to check back to see what treatment it had. Any system of recording must also be accompanied by efficient labelling since it is no good having a large set of data about a plant if its label has been

transposed to another pot, or something else has seeded into it and the original occupant has died out. Perhaps the most important point to make however is, never, ever, rely on memory; well, not mine, anyway!

Card indexes are great fun and can contain loads of information, but a small computer database is a much more effective way of storing the information since it can be sorted in many different ways. The problem is tearing oneself away from it to go and actually look after the plants, they are so much fun to play with. Just imagine, you could ask it to provide a list of all those bulbs which flowered on 10th July 1993 which came from the Wayne Roderick/Ron Lutsko seed list in 1988 and originated in Lake County, California, and had blue flowers, and then died in 1994 because you forgot to water them properly! Quite seriously, they are well worth the effort because of the ease of access to all the information, perhaps not in small collections but when the number of separate 'acquisitions' reaches the thousand mark (quite easy, I assure you), the database becomes invaluable. I must finish mine sometime.

Labels

These are the bane of our lives and I don't know the ultimate answer; certainly the metal ones last for ages (my oldest are at least 25 years, written in lead pencil) but they are expensive. The plastic ones are good for a year or so but soon become brittle and the pieces fly all over the place when the dog walks on them. Then one wastes ages trying to fit the pieces together again to find out what was written on them. I have taken the crafty step of writing on the name twice, once at the top and once at the bottom so that even if the top breaks off there is still the piece in the soil with all the information on. A planting plan is all very well, but it has to be updated every time a plant is moved, and all these things take time. Surely there is a material which is cheap and resistant to the effects of light? What is the experience of growers in countries where the sun really does shine more than occasionally?

Bessera No. 2

For those who have benefited from Sally & Tim Walker's seed list (see BN 5:18) in the past, and have acquired 'Bessera No. 2', there is now a name to attach to this. Sally has kindly drawn my attention to the paper where *B. tuitensis* was described in 1992: *Boletín of the Instituto de Botánica Universidad de Guadalajara* 1,3:131-136 (1992), by R.Delgado. It is distinguished from the fairly well-known *B.elegans* by a difference in the stamens; the filaments are joined together at the base to form a conspicuous ring; the capsule is also somewhat smaller, but it

will be a few years before I can enjoy this particular subtle difference!. The seeds offered in the Southwestern Native Seeds catalogue are from pink-flowered plants. *B. tuitensis* is described from the municipality of Cabo Corrientes, Jalisco, Mexico, at about 700 m. In cultivation it will be a summer-grower, requiring a dryish frost-free dormant period in winter.

Swedish Bulb Group

Some further notes on this new group (see BN5:19) have been received from Owe Jaktlund, clarifying my earlier comments. He says: 'I took the initiative to create a group after having read about similar groups in England. We are a group within our Society, Sällskapet Trädgårds Amatorerna (STA), and so far very small (16 people)'. He also explains that, as yet, The Gothenburg Botanical Garden is not involved in the group, although Henrik Zetterlund and Jimmy Persson are of course very well known to the members of the group. Two years ago he started a 'bulbfestival' in their local chapter and invited as lecturer Jimmy Persson, who arrived with a large supply of their surplus bulbs. Owe remarks that 'the sight was unforgettable when Jimmy emptied a suitcase containing 800 bags of bulbs on a table before 200 eager 'customers'. [No doubt Jimmy has been flooded with request for lectures ever since!]. Owe hopes that in time they will be able to gather together and publish (in Swedish) information about the 'growability' of different bulbs in different parts of Sweden. So, if anyone has a large surplus of anything, I am sure that Owe would be pleased to come to your rescue and relieve you of them. Address: Bergsrundan 6, 151 90 Södertälje, Sweden.

Grants for young horticulturists: not just the bulbous variety

There are quite a number of Trusts in existence to assist budding gardeners & botanists with various projects during their 'formative' years. This is not the place to give lists of sources of funding, but I would like to mention one Trust in particular, The Merlin Trust. My first expedition was partly financed through a fund set up by the RHS in memory of E.A.Bowles, to encourage young plantsmen/women. I and my fellow students Stuart Baker, David Barter and David Pycraft, made a 4-month Land Rover journey through Iran and this was to have a very marked effect on my own career in botany and bulbs, and laid the foundations for a very happy life among plants. So, needless to say, I am very much in favour of any Trust which aims to help those who are setting out on a career in plants. The Merlin Trust does exactly this, and I can do no better than to quote from the Trust's own Information Sheet. 'The aim of

the Trust is to give financial assistance to keen young horticulturists, enabling them to further their knowledge of hardy plants, in the wild or in gardens--'. The Trustees will consider grants of up to £500, following receipt of an application form giving full details of the project. Grants are restricted to U.K. citizens, since there is a limit to the number of people who can be supported, and they should preferably be between the ages of 17 and 30. Why 'The Merlin Trust'? When Sir David Scott retired from the Foreign Office in 1947, he created a two-acre garden in Northamptonshire, in which he planted rare trees, shrubs and hardy plants from many parts of the world. He did this in memory of his only son, Merlin, an outstanding naturalist, who was killed in North Africa during the second World War, whilst still an undergraduate at Oxford. After Sir David's death in 1986, a Trust was set up in his memory and that of his son, Merlin. So if you know of any young plant enthusiasts who are wanting to plan a project, do inform them of the Merlin Trust. It does not have to be a grandiose expedition; funds have been provided for visits to Shows, Botanic Gardens and Nurseries as well as for study visits and expeditions to most of the continents. Application forms may be obtained from Valerie Finnis V.M.H., The Merlin Trust, The Dower House, Boughton House, Kettering, Northamptonshire, NN14 1BJ. [Please enclose a large self-addressed stamped envelope].

From the Postbag

Friedbert Dumke of Bremen has written to say that he has actually tried Onions-and-Roses (a new pop-group, perhaps?) as a cure, for 'rose-weariness' of the soil rather than black spot as reported in BN1:16 & BN2:10. He says that *A. aflatumense* and *A. karataviense* are doing very well but the only noticeable effect of the planting is that he has become fond of Alliums! Well, some good has come of it, then. He mentions that there is also a saying that *Fritillaria imperialis* expels voles; here we go again, more post!

Paul Cook, Kew student and now Head Gardener at Arley Hall in Cheshire has written to say that his hopes of planting more bulbs in the large Victorian garden there are being thwarted by pheasants. 'The estate rears thousands of the birds and they have taken great delight in pecking - I'm not sure if they are eating - *Cyclamen*, *Galtonia*, *Crocus* and others'. He is conducting his own trial of 'pecking order'. Short of eating the birds I am not sure that I know what to recommend in this case. Plant only those bulbs which flower just after the pheasant-shooting season begins, perhaps? Maybe other subscribers have better ideas.

Audrey Nash of Hereford writes that she is wondering if 'you or other

'Bulbies' can throw any light on the reasons why crocuses sometimes produce extra petals. This has occurred in my garden with a number of both *Crocus speciosus*, and 'Goldilocks' from the so-called *chrysanthus* cultivars. This spring one flower of *C. biflorus biflorus* had ten petals. These crocuses have all seemed to be in good health. In the autumn of 1992 *Crocus hadriaticus lilacinus* produced mainly flowers with several extra petals, but I am wondering if it was virused. I have tried to isolate it in case this is so.' She also asks about *C. tommasinianus* 'Eric Smith'. 'The one I purchased did on one occasion manage eight petals, but has since always kept to the standard six, and it has some suspicious looking speckling. Is it simply a virused form of the very robust *C. tommasinianus* 'Albus'? I would be very interested to know how other people's crocuses behave. The short answer is that I don't know the straight answer to any of these questions but we have a lot of Crocus enthusiasts in the group who might like to share their thoughts on the subject; either through BN or directly to Audrey M. Nash at 24 Moon Farm Lane, Hereford, HR4 0NT. I had a clone of *C. kotschyanus* once, since discarded, which increased rapidly but was shy-flowering and, when it did flower, tended to produce 4-petalled or malformed flowers. That one I did suspect of having a virus but one can never be certain and virus-testing is not that easy or cheap to arrange. I have seen eight-petalled *C. dalmaticus* in the wild but the 'freak' did not persist when brought into cultivation. Some deformities can, I believe, be caused by outside factors when the buds are being formed, such as sudden changes of temperature or physical damage, so 'hiccups' such as these would not be passed on to the next year. With regard to the dark speckling on crocus flowers, I am sure that this is caused by a virus. I have seen it, as streaks and splashes of colour in commercial stocks of *C. dalmaticus*, *C. etruscus*, *C. korolkowii* and *C. medius*, and also in my *C. tommasinianus* 'Eric Smith'. However, it does not seem to be a particularly crippling virus, is apparently not very readily transmitted to other species and the overall display is unaffected. Incidentally, one flower on my clump of *Iris unguicularis* 'Walter Butt' had four of everything this year; should I transfer it to the Cruciferae bed I wonder?!

William Waterfield, from Menton Garavan, France, has commented that *Boophane disticha* (BN4:17), which I had referred to as being a summer-grower, can also be a winter-grower. This species has a very wide distribution in eastern Tropical Africa and in the Cape, so it is likely that the behaviour in cultivation depends, at least to some extent, upon the origin of the bulbs, from winter or summer rainfall areas; those from the more tropical areas would, however, react only to wet or dry periods regardless of time of year (since there is no winter or summer in the tropics), so they could be brought into growth at any time after a warm dry

rest period. He makes the point that this information, as to whether a bulb is a winter- or summer-grower, is of prime importance but is not often offered. I quite agree; as I said in BN5:3-5, there are bulbs from winter-rainfall and summer-rainfall areas, and these two types are fairly set in their ways, whereas those from the seasonally dry regions of the tropics are not and can be induced to grow at any time, given a rest period at some stage.

Pierre Mercan, of Grenoble, sent in a colour photo of a lovely red Turkscap Lily which he brought back from Minnesota some years ago. He says that his *Lilium* aff. *superbum* was 'growing in wet prairies, often in hundreds. It blooms in August in Minnesota and at home, offering spikes about 1.6 metres which can contain about a dozen flowers. Its bulb is an easy multiplier, the way *L. superbum* does'. He continues 'I grow it in almost pure peat and it seems the better as long as water is provided during the growing season. It can stand a wet clay soil but tends to be a poor bloomer. Do you know which species it could be?.'

This is *L. michiganense*, a species I have not cultivated (we do have it in our garden now, thanks to Pierre!) and it is thought by some botanists to be more closely related to *L. canadense* than to *L. superbum*. Its flowers are of a brighter red shade than those of *L. superbum*, and they lack the green centre, but they do have sharply reflexed perianth segments so resemble *L. superbum* in overall shape. It has a very wide distribution from Ontario southwards to Kansas.

Requests

The Department of Botany, Royal Veterinary & Agricultural College in Copenhagen is making a study of the *Crocus chrysanthus-biflorus* cultivars and is asking for help in tracking down some of the older ones; they already have about 40. It would be of great interest if they could establish a 'complete set', although this is probably impossible now. In particular they would like to acquire any of the following: 'Scotch Crocus', 'E.A.Bowles', 'Harlequin', 'Jeannine', 'Marianne', 'Moonlight', 'Snow White', 'Susie', 'White Beauty', 'Lemon Queen', 'Blue Butterfly', 'Jester', 'Yellow Hammer', 'Blue Beauty', 'Bumble Bee', 'Golden Pheasant', 'White Egret', 'Siskin', 'Curlew', 'Celeste', 'Grey Lady', 'Bullfinch', 'Canary Bird', 'Sultan'. If anyone can help, Marion Ørgaard, at the Botany Department of the above College, Rolighedsvej 23, DK-1958 Frederiksberg C, Copenhagen, Denmark, would love to hear from you.

Margaret Criddle, 5 Storeys Lane, Burgh le Marsh, Skegness, Lincs. PE24 5LR, U.K. is trying to obtain a yellow *Clivia*, no matter how small, and is quite happy to pay for it.

June Young, Kiln Cottage, 33 Park Hill, Wheatley, Oxfordshire OX33 1NE, U.K., is seeking seeds of the 'Reticulata group' irises (ie., subgenus *Hermodactyloides*), not necessarily the species; in fact she is particularly on the look out for seeds of any of the hybrids.

Catalogues

The Cape Seed and Bulb company are offering flowering sized African bulbs, priced per hundred, so this may be a case for getting together with friends; prices range from £25 to £120 depending on species, so are very reasonable. Items include several *Oxalis*, for example *O. namaquensis*, *O. tenuifolius* & *O. falactula*, *Babiana cedarburgensis* (large mauve), and the gorgeous *B. rubrocyanea*, the dark red *Geisshoriza inflexa*, *Hesperantha vaginata* with its extraordinary yellow and black flowers, and one of the Peacock *Moraeas*, *M. villosa*. *Dierama mediana*, which I have not seen before, is said to be a dark purple form. A phytosanitary certificate costs £10. P.O.Box 4063, Stellenbosch, Cape 7609, Rep. of South Africa.

Sunburst Flower Bulbs are offering a *Watsonia* which sounds interesting, an autumn-flowering hysteranthous (i.e., the leaves come later, after the flowers) species, *W. hysterantha*, which has bright red flowers. Also, the seldom-available *Cybistetes longifolia*, a hysteranthous autumnal Amaryllid with an umbel of pale pink flowers. These, and other interesting items, are all of cultivated origin, and are for spring planting; in a separate list received recently there is the white *Watsonia*, mentioned above, and lots of other gems including *Ixia viridiflora*. P.O.Box 183, Howard Place, Cape 7450, Rep. of South Africa.

For fanciers of *Narcissus* cultivars, the catalogue of Ron Scamp is always an excitement. We have purchased several 'specials' in the past and they always give us great pleasure. The catalogue is colour-illustrated and is conveniently arranged according to the recognised cultivar groups, plus a 'New introductions by R.A.Scamp' section. There are a few species as well, including the curious *N.poeticus physaloides* with its puffed-up spathe. R.A.Scamp, 18 Bosmeor Close, Falmouth, Cornwall TR11 4PX.

Jānis Rukšāns (see BN 4:19) will again be offering a wide selection of unusual bulbs species from the former USSR this autumn. My mention of the nursery in 1993 was too late for enthusiasts to order. P.O. Box 441, LV-1098, Riga, Latvia.

In New Zealand, Pat and Charlie Challenger are offering a good range of bulbs from old favourites to the more unusual, including *Iris histrioides* 'Major'! *Anemone flaccida* and *A. nikoensis* sound lovely and are new to

me, both Japanese woodlanders, the latter with 'large porcelain-like white flowers carried over trifoliate leaves edged with pink'. They also have the curious little native orchids, *Pterostylis alobula*, *P. curta* and *P. trullifolia*, presumably CITES certificates are needed to move those around the world. Kereru Nursery, Okuti valley, Little River, Canterbury.

John Morley, North Green Only, Stoven, Beccles, Suffolk NR34 8DG, U.K. has an very useful seed list which has a wide range of plants including some bulbs; here are a few names: *Bellevalia forniculata* (the most brilliant blue species), *Colchicum corsicum*, *Erythronium howellii*, *E. hendersonii*, *Fritillaria pyrenaica lutea*, *F. roylei*, the white-seeded *Iris foetidissima* and *Lilium ledebourii*. In February each year John also has a wonderful Snowdrop catalogue.

Bookends

Rare and Endangered Plants of Oregon by Donald C. Eastman, published by Beautiful America Publishing Company, PO Box 646, Wilsonville, Oregon 97070, USA. This is a large-format soft cover book of 194 pages containing over 300 excellent colour photographs of the rare and endangered plants of Oregon. Needless to say, there are quite quite a lot of monocots, although these are not all confined to the State and some of them are probably not so rare when considered over their whole distributional range. Six *Calochortus* are included, the rarest of which seem to be *C. coxii*, known from an area of about 11 square miles, *C. howellii*, a threatened endemic, *C. greenei* and *C. umpquaensis*, the last is a newly recognised species which is known from only a few serpentine rock areas. One does not associate *Alliums* with rarity, but 7 are listed, the dwarf pink endemic *A. pleianthum* probably being the rarest. *Fritillarias* are given special treatment with some very crisp photos of *F. adamantina*, *F. camschatcensis* (rare in Oregon but very widespread), *F. falcata*, *F. gentneri*, *F. glauca* and *F. recurva*, several of these also occur in California. Other monocots are *Lilium bolanderi* (rare and threatened throughout its range), *L. kelloggii*, *L. occidentale* (said to be one of the rarest plants in Oregon), *L. parvum* (possibly now extinct in Oregon), *L. rubescens* (possibly extinct in Oregon), *L. vollmeri* and *L. wigginsii*, *Dichelostemma ida-maia*, several *Cypripediums*, *Iris tenuis*, *Erythronium elegans*, *E. citrinum*, *E. revolutum*, *E. howellii*, *E. klamathense* and *E. oregonum*, *Trillium parviflorum* and *T. kurabayashii*, *Scoliopus hallii*, *Triteleia crocea*, *T. hendersonii* var. *leachiae* and *T. laxa* and several other less striking 'bulbs'. For those of us who are cultivating some of these species, this book is a reminder that we should be trying to grow them as well as possible, propagate them and spread them around to others.

The Woody Iridaceae: Nivenia, Klattia & Witsenia by Peter Goldblatt, published jointly by Timber Press, Missouri Botanical Garden and The National Botanical Institute, South Africa. [Timber Press now have an outlet in the UK: 10 Market St., Swavesey, Cambridge, CB4 5QG]. This is a botanical account of 13 curious species of Iridaceae which are confined to the south-western Cape region, having erect woody stems bearing fans of tough leathery leaves and clusters of rather showy flowers; these have 'petals' in various colours: blue (the 9 species of *Nivenia*), red (*Klattia stokoei*), blackish-purple (*K. partita*), yellow (*K. flavâ*) or bicoloured dark green and yellow (*Witsenia maurâ*), all beautifully illustrated in colour by Fay Anderson with black-and-white drawings by Margo Branch. There is a chapter describing the history of the plants and their discovery, followed by an extensive description of all the parts of these very unusual plants, from the general appearance through to anatomy, chemical constituents and cytology. Cultivation is dealt with, but lacks detail since most of the species have not been tried, in spite of their undoubted attraction, so there is little information available. The author recommends starting from seed and certainly, from a conservation viewpoint, this is the only acceptable method. In most of Britain they are plants for a frost-free glasshouse, but they should be 'growable' outside in Mediterraanean climates. Some 25 years ago *Nivenia corymbosa* grew well at Kew, and I have a photo of it in flower showing that it was well worth having. For irid enthusiasts this book is 'a must' and Peter Goldblatt is to be congratulated yet again for making his work available in an attractive and interesting form.

Bulbs for New Zealand Gardeners by Jack Hobbs & Terry Hatch. Godwit Press, P.O. Box 4325, Auckland 1, New Zealand. This has only arrived today, thanks to the generosity of Terry & Pam Hatch, so I have not yet settled down to go through it in detail. It is interesting to me because it includes a lot of bulbs which get left out of the bulb books which are written for British gardeners, on the grounds that they are not hardy. So, there are details of genera such as *Babiana*, *Blandfordia*, *Bomarea*, *Brunsvigia*, *Calostemma*, *Cyrtanthus*, *Geisshoriza*, *Hesperantha*, *Ixia*, *Lachenalia*, and so on. There are many good colour illustrations, descriptions of the plants and very detailed cultivation notes which, although designed for New Zealand gardeners, can be fairly readily adapted for colder gardens. This definitely fills a gap as far as I am concerned.
