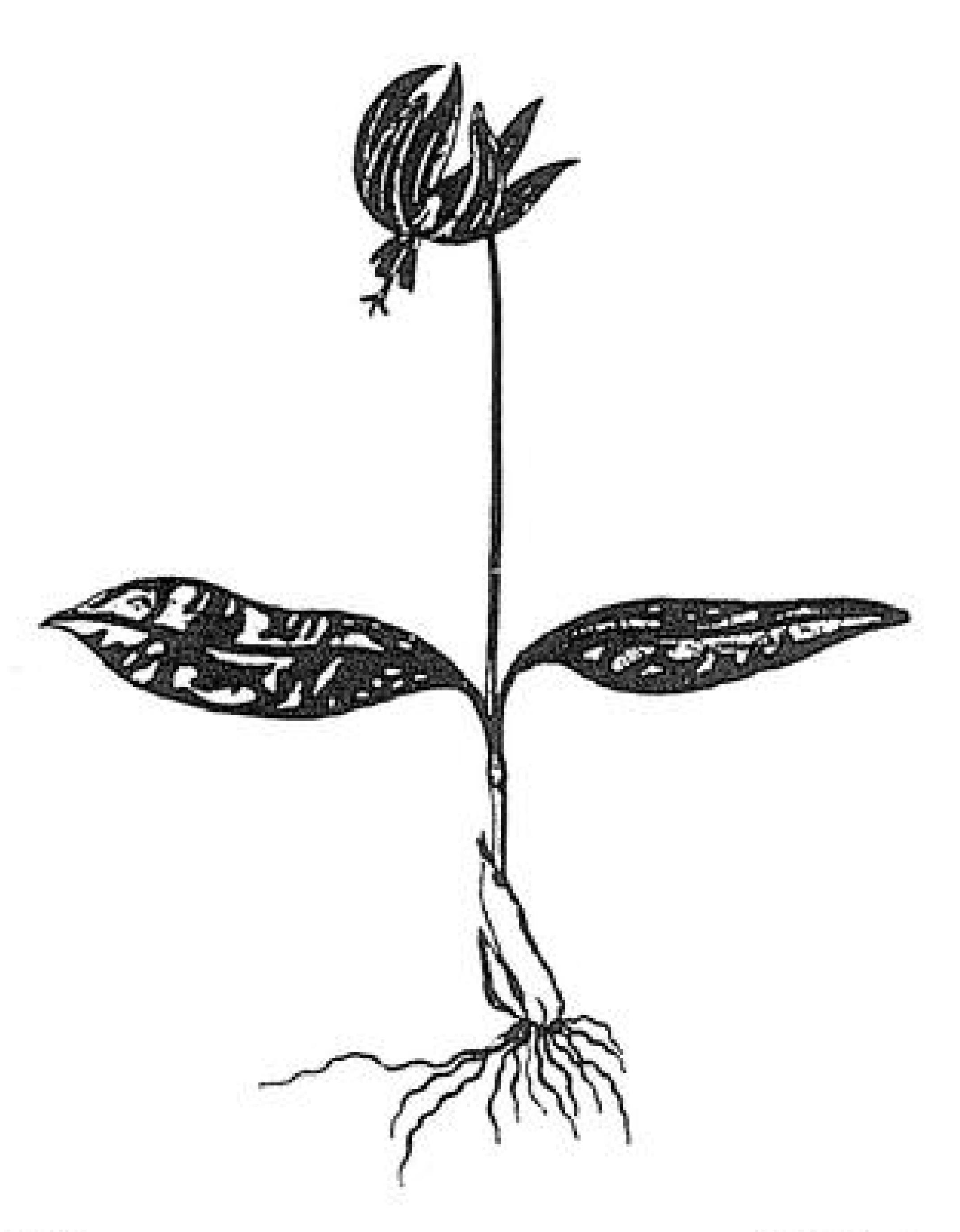
# THE BULB NEWSLETTER



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## The Bulb Newsletter No. 20

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## Fritillaria overlooked by BN Team

Whilst assisting the new Fritillaria Group of the Alpine Garden Society (see BN 19:8) with a basic 'working list' of *Fritillaria* species, we came across another name which was new to us. In fact there were a great many new Chinese ones but those were not unexpected - it was the fact that there was a Spanish one that we had missed which came as a surprise. It is *F. legionensis*, described by F.Llamas and J.Andres in *Lagascalia* 11:67-70 (1983); although described nearly 15 years ago it was after *Flora Europaea* Vol. 5 [Monocots] (1980) had been published, so just missed out of being included in this, the most recent treatment of the European flora. One might reasonably expect this to be related to, or even a local variant of, *F. pyrenaica* or the very variable *F. lusitanica* (incl. *F. hispanica*), but the authors compare it with *F. involucrata* from south-eastern France and north-western Italy. It is easy to see why they take this view, because it has narrow leaves, the upper three of which are arranged in a whorl overtopping the top-most flower, just as they do in *F. involucrata*.

Fritillaria legionensis appears to be quite a vigorous plant, generally larger in all its parts than F. involucrata. It is 50-65 cm in height with 8-16 narrow, glaucous-green leaves; the lower ones are alternate, 11-15 cm long and 8-10 mm wide, and the upper three in a whorl, 2-5 mm wide. There are 1-3 pendent bells about 4 cm long and 2.5 cm wide, the outside of the perianth segments with green margins and darker-chequering and the inside lined with yellow. The shape, position and size of the nectary are characters used frequently in the classification of Fritillaria, and in this species it is triangular-ovate, about 4 mm in diameter and situated 5-6 mm above the base of the perianth segment. For the record, the stamens have filaments 11-12 mm long and anthers 10-12 mm long; the undivided part of the style is about 8 mm long and the three branches are about 6 mm. A table is provided showing the differences between the new species and F. involucrata. Unlike F. involucrata, where the lower leaves, and sometimes also the intermediate ones, are in pairs, in F. legionensis they are all alternate. Fritillaria legionensis is always the larger of the two species, although in most of the measurements - leaves, flower parts, etc. - there is a slight overlap at the upper end of the scale for F. involucrata and at the lower end for F. legionensis. The name is taken from Léon in northern Spain, Legio to the Romans, where it is found in meadowland.

## Two more Iranian 'Frits' arrive on the scene

It came as a surprise to see that one of our Fritillaria collections (No. 1433) made in 1963 on the Bowles Scholarship Botanical Expedition to Iran (BSBE) has just been described as a new species, F. chlororhabdota (= green-striped). In Herbertia 52: 140-152, Bakhshi Khaniki gives this as a member of the F. caucasica alliance, the Iranian members of which are listed as F. assyriaca, F. caucasica, F. chlorantha, F. zagrica, F. chlororhabdota, F. uva-vulpis and F. atrolineata (another new species, see below). Other relatives, mentioned only briefly since they do not occur in Iran, are F. pinardii and F. armena. The new species is usually up to 30 cm (sometimes to 45cm) in height with 4-7 greygreen alternate leaves and narrow purple bells which have a green-yellow stripe along the centre of each segment on the inside; the nectaries are green, broadly lanceolate or elliptic and the style is short, stout, papillose and undivided. Martyn Rix, in his article 'Fritillaria in Iran' (Iranian Journal of Botany 1(2): 14075-95 (1977) included BSBE 1433 under F. assyrica (= F. canaliculata) but commented that it differed from typical specimens in its broader leaves and longer styles and was "intermediate between F. assyriaca and F. caucasica." My colour slides of 1433 show a plant with slender bells flaring out at the mouth, dark purple on the exterior overlaid with a glaucous 'gun-metal' sheen. This was seen in north-west Iran near Lake Urmiah, but the type specimen is from Lorestan, much further south, and there are several other localities given in western Iran showing that it is quite widespread. The habitat is given as mountain steppe, alpine pastures, rocky and grassy ledges at 1600-2000 m. Superficially F. chlororhabdota resembles F. caucasica but the latter has a more slender tri-lobed style, nectaries which are more narrowly lanceolate, the perianth segments are more pointed at the apex, the filaments longer and there are certain differences in the pollen grains which are considered to be significant. My recollection is that the members of the BSBE team were very excited on seeing this plant back in 1963, but then we hadn't seen so many fritillaries as we have now!

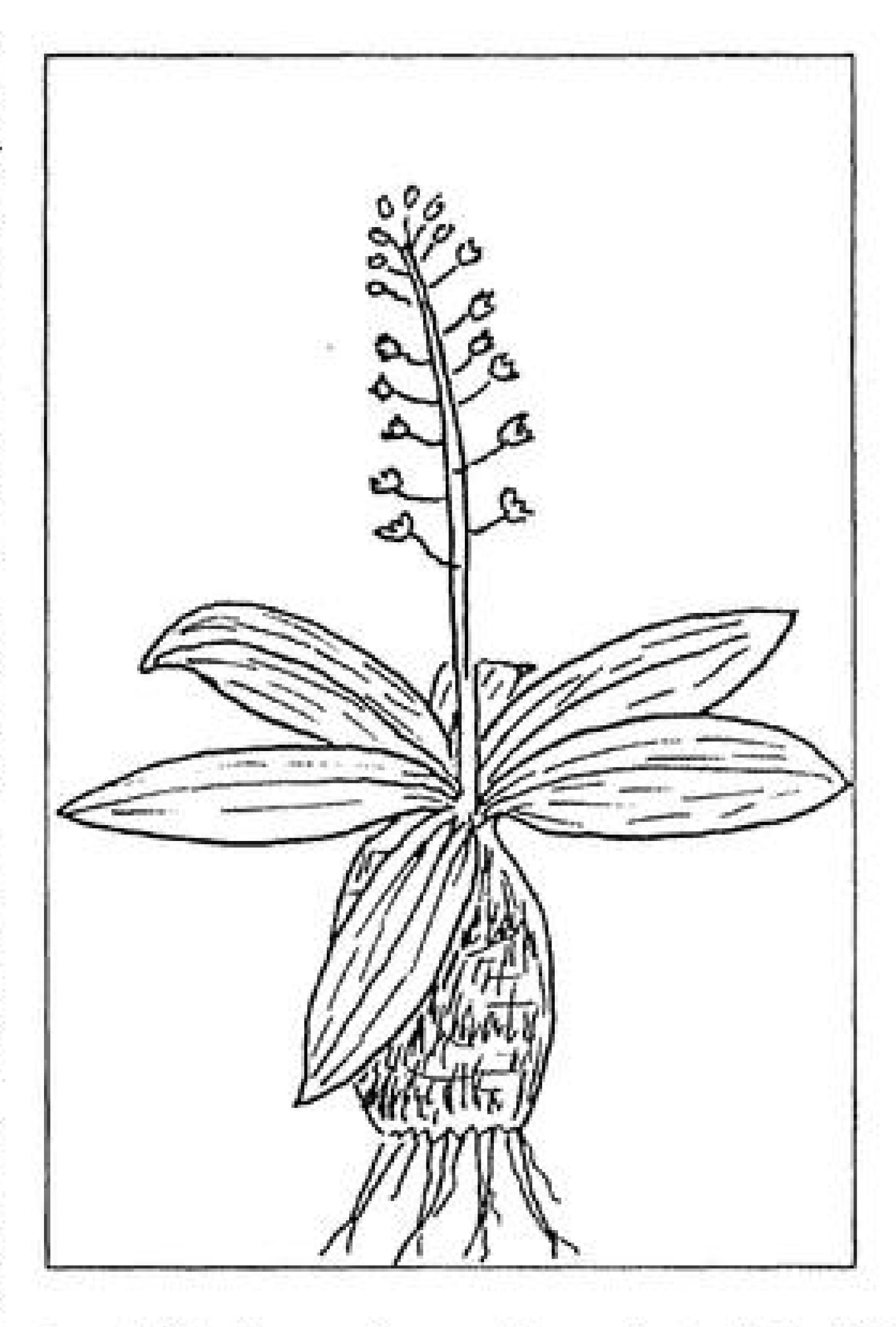
The other unfamiliar name mentioned above, *F. atrolineata*, was also recently described by Bakhshi Khaniki, in the *Edinburgh Journal of Botany* 54(2): 171-181 (1996). This was collected by its author in western Iran, also in the region of Urmiah. From the description and photographs, this is a smaller plant in the same group, 15-20 cm tall with 4-5 grey-green leaves, the lowest almost opposite or in a whorl of three and the rest alternate. The narrow bells are yellowish-green to green with yellower margins on the outside, suffused or dotted pale brown inside and with black, linear nectaries. The style is entire or slightly 3-lobed at the apex and densely papillose. It differs from the other

green-flowered Iranian species *F. chlorantha* in its grey (not shiny green) leaves and narrow, black (not green, lanceolate) nectaries; various other distinguishing characteristics between it and other members of the *F. caucasica* group are given. The new species flowers in April and was found in rock crevices at 1500-1800 m altitude. The name is, presumably, an indication of the dark, linear nectaries.

## A Scilla puzzle

Visiting Washfield Nursery one day in the summer, I was intrigued by a small *Scilla* in seed; it had very narrow greyish, erect leaves and a fruiting raceme about 8 cm in height, and looked unfamiliar, so I acquired one for further investigation. It was labelled *S. dracomontana* (from the Drakensberg), so how could I resist! However, I had a strong feeling that this could not be the correct name.

Scilla dracomontana was described in 1982 by O.M.Hilliard and B.L.Burtt (Notes from the Royal Botanic Gardens, Edinburgh 40:283) and was recorded from various places in Natal including the Giant's Castle and Sani Pass. Although related to the very tall S. natalensis, it is a stocky little plant only up to about 12 cm in height when in flower, with a rosette of short (up to 3.5 cm long) ovate, hairy leaves which are spreading and more or less flat on the ground; these do not expand appreciably after flowering. The short raceme has usually blue, or rarely white, flowers. On the other hand, in the case of S. natalensis, and the similar but rather smaller S. kraussii, the leaves are only just developing at flowering time and they continue to expand afterwards, but remain erect. Scilla dracomontana is an attractive little plant which I used to cultivate



from a collection by Michael Upward but which has since departed this life. Originating from the Drakensberg, it is dormant in winter, flowers in spring and then continues in growth through the summer and I think that my bulb succumbed during winter when it should have been kept fairly dry. The

habitat is noted as being on sandstone cliffs, in crevices and in hard packed earth, often forming colonies.

A most interesting plant, but unfortunately this does not solve my problem as to the identity of the plant from Washfield Nursery. I will just have to be patient and wait for flowering time.

## A name for the bluebell hybrids

It has long been known that the English bluebell (Hyacinthoides non-scripta) and the Spanish bluebell (H. hispanica) will hybridise whenever they meet. The latter, or its cultivated forms, has frequently been planted in gardens and if these plants happen to be near a natural population of H. non-scripta the bees will do the rest. Hybrids are a common sight in and around our village of Claygate, and, I am sure, in many other places as well.

Curiously, a name has never been given to the hybrids but now Daniel Geerinck has provided us with one - H. x massartiana, based on hybrid populations noted by him in Belgium in various places including the Jean Massart experimental garden of the Université Libre de Bruxelles, which was named in honour of the Professor of Botany at the University, Jean Massart (1865-1925).

The two species are clearly distinct when dealing with the true plants, with a range of characters by which to distinguish them, including:

<u>H.non-scripta</u> - raceme 1-sided, nodding at the apex; flowers fragrant; anthers yellow before dehiscence; leaves often less than 10 mm wide

<u>H.hispanica</u> - raceme with flowers all round the axis, not strongly nodding at apex; flowers not noticeably fragrant; anthers blue before dehiscence; leaves usually more than 10 mm wide.

H. x massartiana, as one would expect, is very variable and intermediate in characters and thus tending to obscure the distinctions, although the leaves may be wider than in either parent, up to 4 cm wide.

Dr Geerinck's paper, which includes an identification key showing all the characters of these three bluebells, is to be found in the *Belgian Journal of Botany* 129:83-85 (1996).

## A new tuberous Corydalis from Korea

Much is happening in the world of tuberous *Corydalis*, it seems. They are at a height of popularity as garden plants, Magnus Lidén and Henrik Zetterlund have published their fine book on them (see BN 18:18), there was a splendid exhibit of them at an RHS show earlier this year, and new ones are being found and described with great regularity. The latest we have come across is *C. albipetala*, described in the *Korean Journal of Plant Taxonomy* 26:213-217 (1996) by Byoung-Un Oh. This is a member of the tuberous section *Corydalis* 

which houses C. solida and its relatives and the Far-Eastern C. remota, C.ambigua, C. fumarifolia, etc. This new one has, fairly obviously from its name, white flowers and is compared in the description with the blue-flowered C. repens. Apart from the flower colour, it is said to differ in having shorter pedicels (i.e. the individual flower stalks) 0.5-1.2 cm long at flowering time (1.5-2 cm in C. repens), narrow, linear fruits (capsules) only 2-3 mm wide (5-10 mm in C. repens) and the seeds are arranged in one row (2 rows in C. repens). It has a rounded tuber producing stems (which have a scale near the base as in C. solida, etc.) 10-15 cm in height with 2 leaves, each divided into 3 leaflets which may each be divided again into 3 (i.e. they are ternate or bi-ternate). The raceme has up to 14 white flowers 1.2-1.5 cm long (including the spur), each subtended by a bract which is entire or slightly toothed at the apex. Corydalis albipetala is known only from Korea in Kangwon Province on Mt Odae and Mt Seolak where it flowers in April. From the drawing accompanying the paper it looks as if it is an attractive plant, but it is not known to be in cultivation at present.

## Tulbaghia - fragrant and on the up

The following item is prompted by letters from Yvonne Matthews of Truro, Cornwall, and Phillip Clayton of Roseholme Nursery, Howsham, Lincolnshire. Mrs Matthews writes:

"I am enjoying your bulb newsletter and wondered if you could put something in about tulbaghias. In May this year I visited Marwood Gardens, Devon, with the Cornwall Garden Society. I was surprised to see that the National Collection of Tulbaghia that they hold was planted outside."

Yvonne Matthews also remarks that "after dark the fragrance would have been overpowering" and notes that *T. acutiloba*, *T. capensis*, *T. cominsii*, *T. galpinii*, *T. simmleri* and *T. violacea* all seem to be scented after dark. Phillip Clayton grows several, including one which he has been trying to identify for some time - probably *T. acutiloba* which he notes has a lovely scent and grows well outside in Lincolnshire.

Tulbaghias are becoming increasingly popular in bulb and hardy perennial circles, although I have to confess that all of those I have tried outside here in Surrey have succumbed, probably due to a combination of cold and wet in winter since we have naturally rather poorly drained soil; probably a raised bed with a grittier mix will overcome the problem.

As far as identification goes, they are not the simplest of plants to determine, although two substantial studies of the genus were published during the 1970s and it is to them that we must turn for help; some of the confusion in identification today is probably caused by hybridisation in gardens.

For a start, BN subscribers might find it useful to have a 'working list' of the recognised species, combining as far as possible the two revisions, that of

- Brinsley Burbidge in Notes from the Royal Botanic Gardens, Edinburgh 36: 77-103 (1978) and that of Canio Vosa in Annali Di Botanica 34: 47-121 (1975).
- acutiloba perianth green, corona shallowly and obscurely 3-lobed, orange, reddish-brown or purplish-brown; leaves 3-8 mm wide
- aequinoctialis subsp. aequinoctialis little-known; perianth green, corona 3 lobed; leaves to 1 mm wide
- aequinoctialis subsp. monantha little-known; perianth green, corona crenate at margin; leaves to 1 mm wide
- alliacea (including cernua) perianth green or brownish-green, corona shallowly 3- or 6-lobed, yellow, orange-brown or purplish-brown; leaves 3-5 mm wide
- calcarea perianth green, corona obscurely crenate or lobed, reddish or yellowish-brown; leaves 2-3 mm wide
- cameronii perianth greenish-white or purplish, corona shallowly 3-lobed, each lobe crenate, yellow; leaves 4-10 mm wide
- campanulata perianth green, corona entire or crenate at margin, yellow to orange; leaves 1-3 mm wide
- capensis perianth brownish-green or purplish-green, corona deeply 3-lobed, each lobe shortly bilobed, brown or brownish-purple; leaves 4-12 mm wide cepacea (Burbidge regards this name as illegitimate, & correctly simmleri) details as for simmleri
- cepacea var. maritima details as for simmleri
- coddii (syn. poetica) perianth white or lilac, corona with 3 shallow teeth or lobes, bright yellow; leaves to 1 mm wide
- cominsii perianth white, tinged pink on the tube, corona similar in colour or flushed darker, consisting of 6 scale-like lobes; leaves 1-2 mm wide
- dieterlenii perianth greenish-white, corona entire or shallowly crenate at margin, orange-brown; leaves 1-2 mm wide
- dregeana perianth green or greenish-brown, corona obscurely crenate at margin, yellow to brownish-yellow; leaves 3-6 mm wide
- fragrans perianth rosy lavender or light purple, corona 3-lobed, the lobes forked or toothed, similar in colour to perianth (white forms also known); leaves 10-25 mm wide
- friesii perianth white or tinged purple, corona entire or slightly crenate at margin, green; leaves 1-2 mm wide
- galpinii perianth pale to deep pink, corona of 6 narrow scale-like lobes, pink or white (also described as green tinged purple on the tube); leaves 1-2 mm wide
- Ieucantha perianth whitish-green, corona obscurely 3-lobed/toothed at margin, orange-brown or olive-brown; leaves (1-)3-6 mm wide

- Iudwigiana perianth green, corona shallowly 3-lobed, the lobes notched at apex, yellow to orange; leaves 10-25 mm wide
- macrocarpa perianth green, corona very shallowly 3-lobed, reddish to greenish-brown; leaves 5-10 mm wide
- montana (not recognised by Burbidge; aff. leucantha & cameronii) perianth whitish-green veined green, corona with 6 sharply pointed lobes, orange to reddish-brown; leaves 3-4 mm wide
- natalensis perianth white or tinged purple, corona irregularly 3-lobed, each lobe toothed or notched at apex, greenish-yellow to yellowish-orange; leaves 4-7 mm wide
- nutans (not recognised by Burbidge; aff. leucantha & cameronii) perianth pale green, corona very shallowly 3-6-lobed at margin, red to orange or purple; leaves 3-5 mm wide
- rhodesica perianth pinkish-purple, corona 3-lobed with 3 small reddish teeth, one between each lobe, similar in colour to perianth (white forms also known); leaves 3-5 mm wide
- **simmleri** (Burbidge regards this as the correct name for *T. cepacea*) perianth pinkish-purple, corona of 3 scale-like lobes, each forked at apex, similar in colour to perianth or slightly darker; leaves 2-4 mm wide
- tenuior perianth green, corona shallowly 6-lobed/toothed at margin, yellow to orange-brown; leaves 3-8 mm wide
- transvaalensis (not recognised by Burbidge; aff. leucantha & cameronii) perianth green, corona very shallowly crenate at margin, yellow to orange or brownish-yellow; leaves 6-10 mm wide
- verdoornia (syn. carnosa) perianth whitish, green-veined, corona entire or very slightly crenate at edge, brownish yellow to orange; leaves 5-8 mm wide violacea var. violacea perianth light to deep purple with darker veins, corona consisting of 3 separate scale-like lobes, entire or forked at apex, whitish or purple-tinged; leaves 4-10 mm wide
- violacea var. robustior similar in colour to var. violacea but perianth tube shorter; leaves 2-4 mm wide
- violacea var. minor similar in colour to var. violacea but perianth tube shorter; leaves 1-2 mm wide

Please bear in mind that this information is mostly extracted from published sources and mostly not checked against fresh plants from the garden. Undoubtedly growers will find some discrepancies!

In addition to these names, there are various selections, usually with cultivar names attached, to be found in catalogues and literature such as *The Plant Finder*, as well as some hybrids. These could be dealt with on another occasion.

## George Maw commemorated

George Maw (1832-1912) is remembered mainly for his superb Monograph of the genus Crocus (1886) [see Personalities in the Bulb World, BN 6:9] but he was also well travelled and visited various places in the Mediterranean region, including North Africa. His name has now been attached to a Narcissus hybrid from Morocco which he noted on the 1st of November 1886 "between Tanger and El Houdak", the parents of which were N.elegans and N.viridiflorus. The Spanish botanist Javier Fernándes Casas has described this hybrid as N. x georgemawii, a name which will apply to all hybrids having this parentage; the plants are intermediate in form, colour and size of flower between the parents. The paper describing this is to be found in Anales Jardín Botánico De Madrid 55:174(1997). Also described is N. x galdoanus, a hybrid between N. nobilis and N. triandrus found in Lugo Province, Spain, and a new section of the genus, Narcissus sect. Angustifolii (which has N. elegans as the only representative); this was previously regarded as a subsection of sect. Tazettae. New names are also provided for several 'hybrid sections' (that is, hybrids between species from two different sections).

## A peculiar onion from France

In a recent paper [Acta Botanica Gallica 143:107(1996)] M.Godeau, C.Figureau and R.Corillion drew attention to a curious form of the reddish-purple Allium sphaerocephalon growing in the seaside dunes on the Atlantic coast of France (Depts. Of Morbihan and Loire-Atlantique). In most respects it appears to be a fairly straightforward A.sphaerocephalon, but the 30-50 cm stems turn at an angle of about 90° as they emerge from the soil and appear to lie more or less on the surface, hence the name applied to it, forma prostratum. Interesting it may be, but we cannot see it becoming a popular garden plant!

## Tales of woe from the bulb frame

Mike Evans from Warwick tells a tale which will probably cause others to recall nasty moments in their bulb collections:

"Usually nothing much happens in my bulb frame in July, except the odd Calochortus flowering, so I was very surprised on passing one day to see that the pots had disappeared! Not literally, as their labels were sticking up but the tops of the pots and their gravel top dressing had disappeared under a layer of sand. I soon realised that the culprits were ants. A wet June had made them search for a place to lay their eggs in the dry and the sharp sand of the plunge must have seemed like Paradise! None of my books on growing bulbs mentions ants as a pest (Royton Heath's Collectors Alpines does warn against them, mainly as a possible introducer of aphids), but I used 'Nippon' and an ant powder puffer and they seemed to disappear, although I suspect the

'birds' (i.e. the young ants) had already flown, hence the disturbed sand. On repotting in August I was relieved to find no trace of ants in the pots, or in the plunge, although I removed a wheelbarrow of sand down to the polythene layer which divides the plunge from the material beneath. So, no real harm done and one must admire the enterprise of the ants, even if it is through gritted teeth!"

We have had ant problems as well, in the bulb frame and in the open garden, but far more serious problems have resulted from the activities of foxes and squirrels, and always when the bulbs are dormant. Maybe the foxes like to dig out ant nests and have what must be a rather small and very gritty snack; small craters have appeared amongst the pots, scattering the contents and labels afar and causing general chaos and consternation. There has also been a certain amount of chewing of crocus corms and Juno iris bulbs which may be attributable to the grey squirrels which also abound in our

## Ontario Underground

As reported in BN 19:13, the North American Rock Garden Society (NARGS) has bulbous plants (hence the underground) as its main theme for the 1998 Eastern Study Weekend, from January 30 to February 1 in Toronto. Speakers include Eric Pasche, John Amand, Frank Cabot, Rob & Sharon Illingworth, Anna Leggatt, Craig Stubbs, Alberto Castillo and Brian Mathew. The venue is the Airport Hilton Hotel, Toronto and anyone requiring further details can contact Andrew Osyany, Box 146, Shelburne, Ontario LON 1SO, Canada.

area. The main problem with the squirrels, however, arises in the autumn when the nuts, acorns and conkers (horse chestnuts) are ripe; the contents of the pots are emptied out, a nut, acorn or conker rammed into the bottom of the pot and the whole lot replaced, usually with the bulb upside down of course. The first sign that this has happened is when a *Corylus*, *Quercus* or *Aesculus* germinates in the spring. Well, at least we have no moles, deer, gophers, chipmunks -----yet!

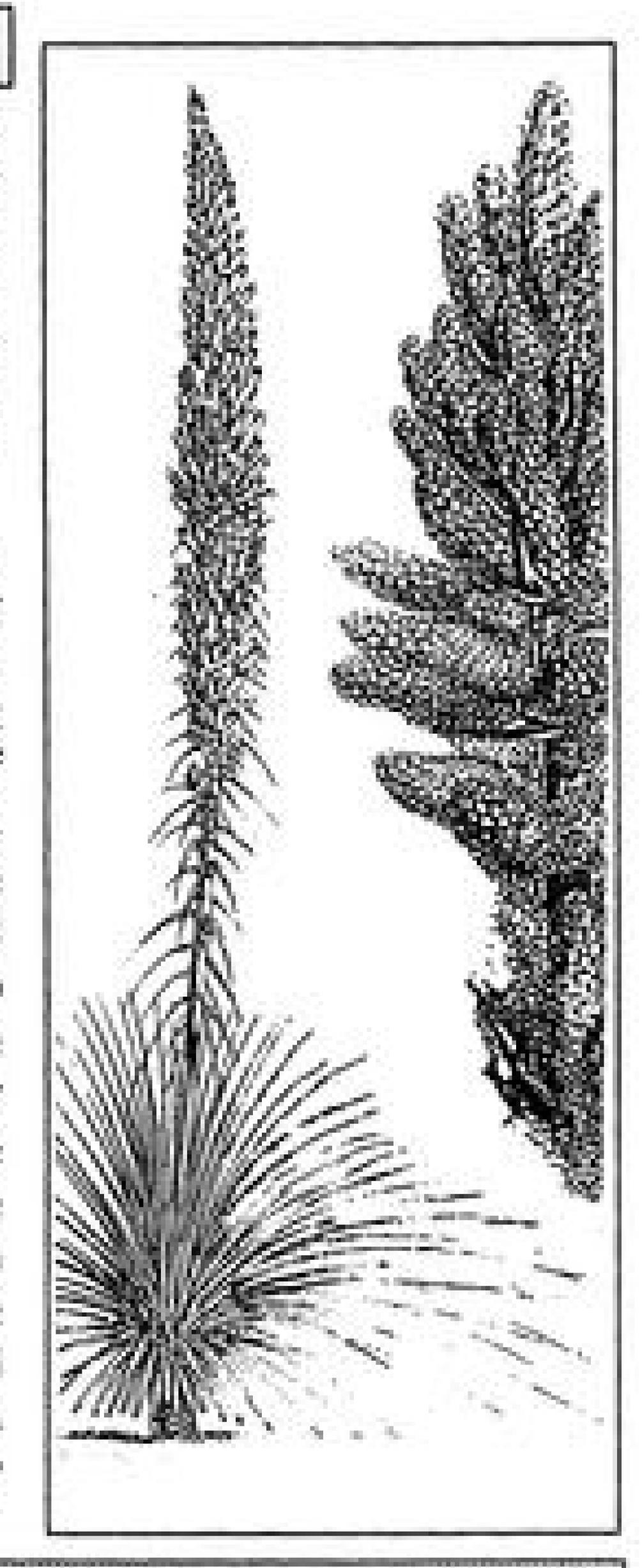
## A beautiful Tigridia. Does anyone still have it in cultivation?

A letter received from Edmund Heaton, holder of the NCCPG's Sisyrinchium and Iridaceae tribe Tigrideae collections, reminded me of a lovely Tigridia which I used to grow, sent to me by the Tigridia monographer Elwood Molseed who sadly died at too early an age. It is T. seleriana, a lovely dwarf, blue-flowered alpine meadow species from altitudes above 3000 metres in Guatemala (Quezaltenango and Huehuetenango) and Mexico (Oaxaca). I grew this and flowered it (Molseed 143, from Llano de las Flores) for many years, but it eventually 'passed on' during the winter dormancy, which, I find, is the trickiest time in Tigridia cultivation. As far as I know it has been lost to cultivation. I hope that this remark will provoke someone into offering seeds!

#### Hooked on Dasylirions

Tony Schilling recently sent us through the post for identification a very prickly specimen with viciously hooked spines, not a bulb but a good monocot and most certainly a *Dasylirion*. It was photographed in the town of Pollensa on the island of Majorca, but this is of little help, for the genus is wholly American and most of the species are from Mexico.

Dasylirions are not easy to identify, even if you have the whole plant, so a photo and a leaf is far from ideal, but this does appear to be D. glaucophyllum, a handsome plant with a short stout trunk crowned by a tuft of hundreds of narrow greyish-green leaves, armed with vicious hooked spines along the margins. The inflorescence, again with hundreds of small whitish-creamy-green flowers, can reach to two metres or even more, so it is a most impressive plant when in full flower. Although not really hardy here in England (perhaps so in the extreme south-west and west), they can be rather attractive 'architectural' foliage plants for growing in containers, protected in winter; some of them have shredded-fibrous leaf tips which give them added interest. I saw some more striking ones in gardens on a recent visit to Oregon - I could definitely become 'hooked' on them.



#### ROMULEA REQUEST

Robin Attrill has written to say that he is in the early stages of trying to accumulate as comprehensive collection of *Romulea* as he can, from both the southern and northern hemispheres - the genus is widespread in the Mediterranean region, southwards through tropical Africa (on the higher mountains) into Southern Africa where it is particularly well represented. He not only wishes to obtain plants and/or seeds but also make contact with others who have an interest in the genus, with a view to exchanging information.

We have done a quick count and reckon that there are at least 100 species of Romulea, and fascinating they are too - there should be plenty to correspond about. Please contact:

Robin P. Attrill 17 Waterhouse Moor, Harlow, Essex CM18 6BA, UK.

## A further subspecies of Crocus biflorus

Helmut Kerndorff and Erich Pasche have identified another subspecies of the very widespread 'annulate' crocus, *Crocus biflorus* and described it as subsp. *fibroannulatus* in view of the corm tunic type - fibrous, rather than papery or eggshell-like. They compare it particularly with *C. biflorus* subsp. *artvinensis* since the two inhabit the same region of Turkey, namely the vilayet (province) of Artvin in the north-east of the country. As well as describing the new one, they give a lot of information about *artvinensis*, based on personal observations, and there are two pages of colour photographs showing corm tunics, seed pods and variations in the flower colour and markings of both subspecies; there are also black-and-white illustrations showing scanning electron microscope studies of the seed coat characteristics. The colour photos show subsp. *fibroannulatus* to be white or lilac in ground colour, marked with darker violet stripes and feathering on the outside, with a yellow throat. The paper is published in *Linzer Biologische Beiträge* 29(1): 591-600 (1997).

The *C. biflorus* 'complex' is a fascinating and puzzling group and I am sure that others will be discovered and described in the future, particularly in Turkey where they are so abundant and variable; whenever collections are made, something slightly different seems to turn up. As an example, Norman Stevens (Cambridge Bulbs) once showed me a Turkish, spring-flowering, blue *C. biflorus*, looking like subsp. *pulchricolor* but with black anthers, which I could not equate with any of the known subspecies, and the representatives of *C. biflorus* from the Kop Dag pass in eastern Turkey do not quite match up with the other variants of subsp. *tauri* in the region, having a rather more parallel-fibrous corm tunic. And then, of course what about the related yellow *C. chrysanthus*; it also is very variable and should probably be split into several subspecies. Plenty of puzzles yet to be solved in this popular genus!

## From the Postbag

David Victor of Leighton Buzzard writes to say that he has been sent some seed of *Pasithea caerulea* but cannot find any useful information about it. We are always happy to oblige, particularly when it is a nice plant like this.

Thanks for your letter, David; We can tell you a little about *Pasithea caerulea* as we have grown it from time to time and have it at present doing reasonably well.

It is a Chilean plant, seemingly related to Anthericum but with blue flowers. It has a rhizome with fairly long fleshy roots, a basal tuft of narrow, channelled 'grassy-looking' leaves up to about 30 cm in length and a loosely-branched flower stem, overtopping the leaves, with wide funnel-shaped lavender blue flowers. With us, here in Surrey, it is not hardy and we grow it in a deep pot in a just frost-free glasshouse. It never really goes dormant completely although

dies back in summer and makes most of its growth through the winter period, flowering in late winter/early spring. It is given more water during the growing period but not dried out completely in summer as its roots would shrivel away too much. The compost is a loam-based mix with some leafmould/bark chips to lighten it. It does not seem to be particularly fussy, is definitely not frost hardy but certainly worth growing. It is apparently named after one of the Graces, one of those useless but interesting pieces of information!

## Advice, please

Bruce Muir of Burwood, Victoria, Australia has problems with liverworts, and to a lesser extent mosses, growing in seed pots, thus preventing germination or smothering seedlings. This is a problem many will have encountered, so any helpful advice which is forthcoming will be printed in the BN so that others might benefit. Here in Surrey we use a very sharply drained potting medium and top the pots after seed sowing with a coarse grade of grit; this seems to deter the liverworts from the pots of bulb seedlings but we do get the problem on the pots which have a peatier soil mix, such as we use for some other plants such as Ericaceae. Comments, please, to the BN office.

Liz White of Honiton, Devon has a query concerning Arisaema kiusianum, a beautiful species in this fascinating genus which apparently has a problem, or rather its cultivators have. If you start with a large tuber, it will grow and flower well, and it even produces offsets but they will not grow on into flowering sized tubers. She was warned of this behaviour by the kind person who gave her the offsets, and it seems that others have experienced the same problem. Now it has been mentioned, we have realised that ours is still the single tuber we started with, plus some non-flowering youngsters which have been detached but left in the same pot. Growing them on outdoors is not an option here in our garden because this species, like A. sikokianum, emerges early in spring and gets frosted. Liz has tried leaving them attached to the parent, and removing them to be grown on separately but neither

#### CROCUS STAMP

Well, not a postage stamp but a postmark stamp, technically known as a frank, from the verb 'to frank' of which the dictionary says: 'superscribe with signature ensuring gratis conveyance'!

Anyway, thanks to Antoine Hoog for sending us this. It is a franking mark from the town of Husum, a town in Germany with their own postmark of a Crocus flower inscribed 'Krokusblüte in Husum'; this has arisen because of the large plantings of Crocus napolitanus (vernus) in the Schlosspark.

strategy has worked. So, if anyone has any bright ideas, let us know here at BN and we will pass the information on.

## Utilitarian Bulbs - by Brian Halliwell

Bulbs which feature in this Newsletter are mostly grown for their pleasing flowers but in earlier times all plants including bulbs had to be useful; if they had attractive flowers it was of secondary importance.

Today the genus Allium, although currently with quite a following of enthusiasts, is never likely to be highly fashionable as a genus because of the smell of the bruised foliage. The many species with beautiful flowers are much less important as a crop than those with culinary excellence such as garlic, onion, leek, chives and shallot.

Ornithogalum is another genus which has failed to find favour. It is perhaps easy to understand why Allium lacks appeal with its unacceptable smell (and many of them are unexciting and/or weedy), but why Ornithogalum? Is it because almost all are white-flowered, the least popular flower colour? In earlier centuries, O. pyrenaicum found a place in the kitchen garden for the epicurean delight of the lightly cooked unopened flower buds. Although widespread in southern Europe it is locally common in only a few places in south-western England and was commonly sold in markets in the past as Bath asparagus.

Grape hyacinth suffers in the popularity stakes because of the bad habits of a few species. Bulbs of *Muscari comosum* and *M. neglectum* (atlanticum) after boiling in water are pickled in vinegar or preserved in oil and used as a relish in various parts of the Mediterranean, or with antipasta in Italy.

Whilst a gardening husband may allow his wife to thin out the clumps of grape hyacinths, he would no doubt object strongly if she began to dig up his *Fritillaria camschatcensis*. Although not appreciated by western palates, this fritillary is an important vegetable in Japan.

The pulp from pulverised bulbs of the common daffodil, Narcissus pseudonarcissus, when mixed with honey, has been used as a poultice for sprained ankles, whilst bulbs of the dog's tooth violet, Erythronium denscanis, were dried and ground into powder to dose children suffering from worms.

The two longest-cultivated bulbs are the Madonna lily and saffron. In the seventeenth century, sap obtained by crushing leaves and stems of *Lilium candidum* was used as a lotion on burnt parts of the body to restore hair. The flowers were used in cosmetics - ladies rubbed their faces with the juice from petals to whiten the skin, and the pollen was used as a face powder.

Saffron is prepared from *Crocus sativus*, a sterile variant of *C. cartwrightianus*. It has been used as a colouring agent, in cooking and for medicine. This needs a rich, warm soil for really successful cultivation so has been grown commercially mainly in southern Europe and other warm-summer regions, although at one time it was successful in southern England. For the colder areas of Europe and in northern England, *C. nudiflorus* was a better

alternative, tolerating the cooler, wetter summers and, in addition, multiplying well. Introduced into England by the Knights Hospitallers, probably during the Crusades, it has escaped from their houses of healing and is well established in parts of Lancashire and Yorkshire. Because it is locally common it has acquired the common name of Halifax crocus.

## Catalogues

Jim Jermyn's collection at Edrom Nursery is noted for high quality Scottishgrown alpines rather than for bulbs, but the latest 1997-1998 catalogue has some very choice monocotyledonous items, as well as a very wide range of unusual primulas, gentians and other 'classy' rock plants. Most of the monocots are in a section of their own and here one can find a wide range of Anemone nemorosa forms, Colchicum (including the new-ish, lovely pink C. baytopiorum and Corydalis buschii, a curious eastern Asiatic patch-forming species with ferny leaves and reddish-purple flowers. The bright blue Corydalis elata is seldom offered, a taller version of the now very familiar C. flexuosa which is also here in the list in some of its several named cultivars. Jim tells me that Erythronium californicum 'White Beauty' is not as easy to obtain as it was a few years ago, hence the fairly high price it sells for whenever it does appear in catalogues; he is also listing a variant (perhaps a hybrid) of E. tuolumnense called 'Spindlestone', described as a prolific bloomer with bright gold flowers. In the spring he was exhibiting in London a very fine form of Fritillaria pudica, perhaps not quite as vigorous as the cultivar 'Richard Britten', but a beautiful plant nevertheless; it is such a widespread and variable plant in North America that it is not surprising that some clones do much better than others in gardens. Perhaps one of the rarest and most tempting plants in the list is Lilium henrici, a Chinese species seldom seen in cultivation with pinkish-white flowers, with a dark centre - not for me in the dry south-east of England, but maybe I should give it one try!

Edrom Nurseries, Coldingham, Eyemouth, Berwickshire, TD14 5TZ.

Norman Stevens always has items which catch the eye and there are many of them in this year's autumn bulb list, including *Crocus goulimyi* var. *Ieucantha*, *C. biflorus* subsp. *pseudonubigena*, *C. pelistericus*, *Erythronium caucasicum*, *Fritillaria latakiensis*, *F. whittallii*, *F. ussuriensis*, *Hyacinthella lazulina*, *Lilium ciliatum*, *Scilla melaina*, *Ornithogalum lanceolatum* (the best of all the dwarf 'thogs') and *Sternbergia candida* which he grows and propagates so well; it is described as 'sweat scented' - has my nose been deceiving me, or is this a special form, Norman? There is also an invitation to enquire about any of those special bulbs you are seeking, not on the list - dangerous!

Norman Stevens Cambridge Bulbs, 40 Whittlesford Road, Newton, Cambridge, CB2 5PH, UK.

## Bookends

Trilliums by Frederick W.Case, Jr. & Roberta B.Case. 285pp., 78 colour plates, 43 distribution maps. 1997. Timber Press, The Haseltine Building, 133 S.W. Second Avenue, Suite 450, Portland, Oregon 97204, USA. [UK Office: 10 Market St., Swavesey, Cambridge, CB4 5QG]. \$29.95 (£22.50 in UK).

The genus *Trillium*, comprising over 40 species from North America and eastern Asia is unquestionably one of the most attractive of all 'bulbous' plant groups but information about them has largely been piecemeal, so this compact but comprehensive book from an acknowledged authority on them is more than welcome.

Before we come to the descriptive part of the book there are chapters devoted to various topics such as generic relationships, plant structure, ecological information, conservation, hybridisation, pests & diseases and cultivation; the comments on propagation from seed and by vegetative means are particularly helpful. It is the review of the 43 species which forms the 'meat' of the book, starting with a description of the genus and how it is divided into two subgenera and several informal 'groups'; the very practical identification key to the species includes many drawings to illustrate what is meant by a particular statement. Each species is provided with synonyms and common names, a full description, flowering season, distribution notes and a map, habitat details, information about any interesting variants and further hints on cultivation. The 78 colour photographs are mouth-watering, many of them showing trilliums growing in the wild and in some cases in carpets beneath the trees. It is of particular interest to see that the Cases have described a new form of T. ovatum from California, forma maculosa, in which the leaves are blotched and spotted maroon; normally the leaves of this species are unmarked. As pointed out, this is probably the first instance in which blotched leaves have been noted in a 'pedicellate' species, this characteristic normally being confined to the 'sessile' ones; the occurrence of this variant was first pointed out by Wayne Roderick and later Jerry Flintoff.

Many thanks to our old friends Fred and Roberta Case for all the work they have put in to this fine publication.

Congratulations to two friends and former colleagues at Kew, Phillip Cribb and Kit Grey-Wilson who have both published monocotyledonous works recently. Phillip's Monograph of the genus Cypripedium is the first monograph to be produced on this fascinating genus, covering in detail the 45 known species. This is an extensive piece of work giving a wealth of information, not only full descriptions, history, ecology, conservation, distribution and taxonomy but also a lengthy discourse on their cultivation, by Holger Perner. The book is

Monographs and the paintings are reproduced from those published in the magazine or have been specially prepared by some excellent present-day botanical artists, Pandora Sellars, Mary Bates, Valerie Price and Susie Ray; all the species are also illustrated by Eleanor Catherine with line drawings showing floral dissections. In addition there are 124 colour photographs showing most of the species of Lady's slipper orchid in the wild or in cultivation. This is published by the Royal Botanic Gardens, Kew, and Timber Press (for address see above). Price \$39.95. It should be available in the UK towards the end of October.

Kit Grey-Wilson's Cyclamen, A Guide for Gardeners, Horticulturists and Botanists may be seen as an update of his previous Kew Magazine Monograph but it is in fact a very different book with 140 colour photographs rather than paintings and there are sections devoted to Cyclamen cultivars and the history and development of the florists' C. persicum; this aspect has not been covered in any previous work on the genus as far as I know. Cyclamen enthusiasts will be relieved that there are no name changes of the 20 species recognised; the one addition to the list over the previous work is C. colchicum which is now regarded as a distinct species. At subspecific level, the beautiful cyclamen from the Caspian woods region, originally described as C. elegans, is treated as C. coum subsp. elegans and the recognition of three subspecies of C. graecum, first published by J.H.letswaart in the Cyclamen Society's journal in 1990, has been accepted: subsp. candicum (Crete), subsp. anatolicum (Turkey) and, automatically, subsp. graecum for all other representatives of the species.

Names have been given to other variants at the ranks of *varietas* and *forma*, in the latter case to provide Latinised epithets for, for example, colour forms such as albinos. Although in many genera, particularly those of no horticultural interest, it is of little taxonomic value to name and define these minor variants, in the case of highly popular groups such as Cyclamen it is of considerable practical value to have names available for these; colour variation may be a trivial matter in genetic terms, but to a gardener the difference between pink and white is highly significant! The rank of *forma* is appropriate for these, representing variation within populations and defined to encompass all similar variants which might be found in other populations in future. As an example, let us take *C. coum* forma *albissimum* - this name will cater for all pure whites, wild or raised in cultivation and, within this, individual cultivars can be selected for a particular attribute, such as 'Golan Heights', introduced by the Cyclamen Society and a particular vigorous true-breeding selection.

In addition to the above hierarchy of names, all the known hybrids are described and given botanical epithets. All this provides very 'meaty' reading and I have quite a long way to go yet! 'Cyclamen' is published by B.T.Batsford at £30.

# INDEX TO THE BULB NEWSLETTER (Numbers 1 to 20) Compiled by Dr Chris Jones

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