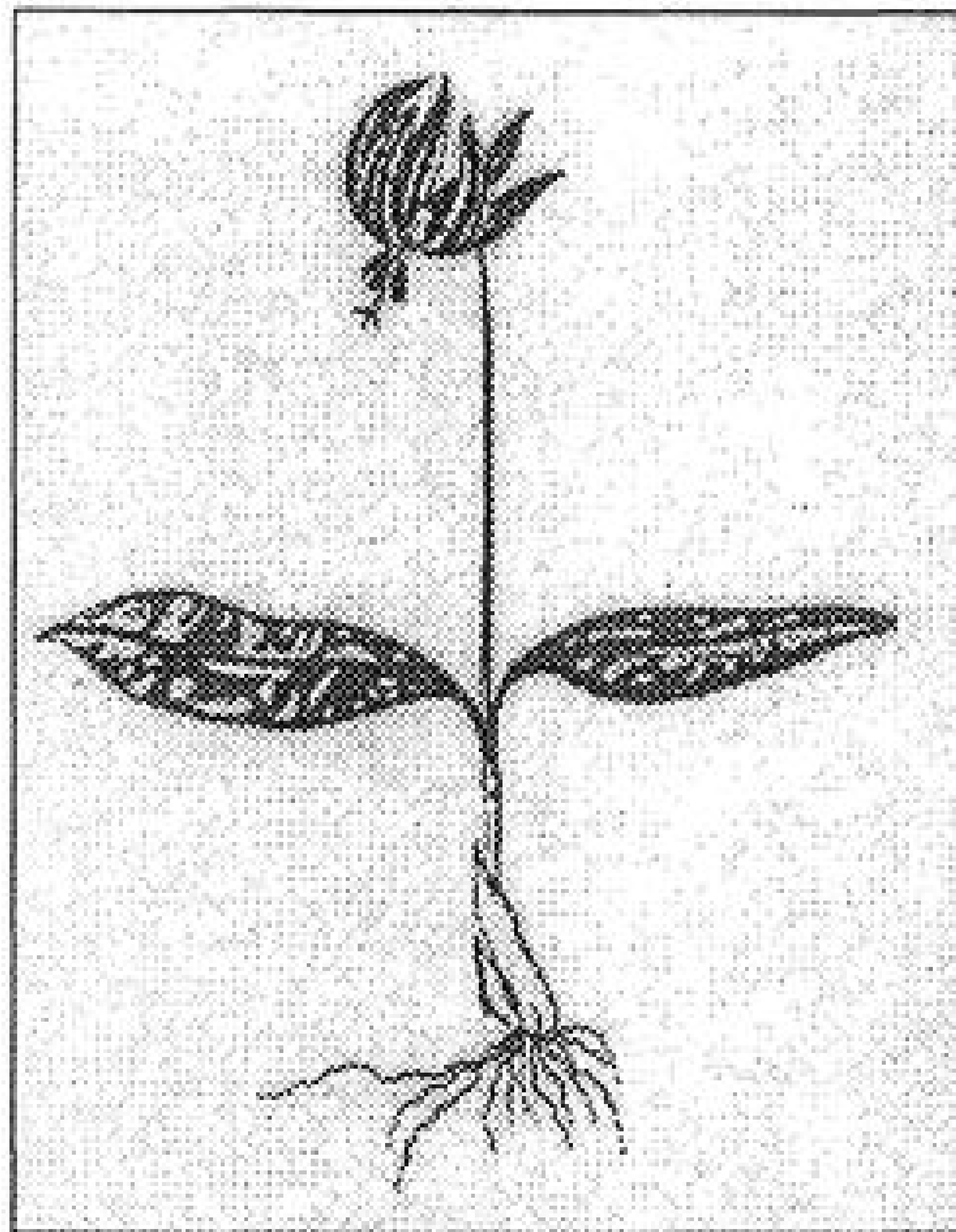


***THE BULB***  
***NEWSLETTER***



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## ***Surplus Cyanellas - how about a snack?***

Those who grow the winter rainfall Cape bulbs will almost certainly know a species of *Cyanella* or two. These interesting Southern African members of the mainly South American Tecophilaeaceae are perhaps not among the world's most striking plants, but they have their uses. There are about 8 species; they grow from corms, producing long, narrow leaves in rosettes or tufts and loosely branched stems carrying small white, yellow or blue flowers with reflexed segments. They flower in winter or early spring and, in cool temperate regions, require only a frost-free glasshouse to see them through the winter. Perhaps more useful than their modest ornamental value is the fact that they are edible. Whilst checking some literature a while ago I came across a reference: "A preliminary investigation of *Cyanella hyacinthoides* as an edible crop plant" by Gillian Scott, in the *South African Journal of Botany* 55: 533-536 (1989). She explains that locals in the southern and western parts of Cape Province used many geophytes (i.e. bulbous/cormous/tuberous plants) and that they clearly had a good practical knowledge of plant toxins since some of them contain poisonous alkaloids and glycosides which can only be removed or destroyed by boiling, roasting, etc. Although *Cyanella* probably does not contain these, the corms were roasted or boiled in milk in any case since, as Dr Scott reports, flatulence is a problem if they are consumed raw. They are said to taste rather like mashed potatoes and, in comparative tests with these, it appears that they have almost as much protein and contain more fibre. The two species known to have been eaten locally were *C. lutea* and *C. hyacinthoides*, both of which are cultivated by bulb enthusiasts to some extent. The study set out to find whether *C. hyacinthoides* could be grown as a viable crop in parts of South Africa, recording details of the best time to sow seeds, the germination rates, seedling growth and the optimum crop densities; the last of these showed that up to 50 plants per square metre could be grown. Obviously, it would only be successful if a marketable crop could be raised rather rapidly.

The problem encountered here is in getting the corms up to a suitable size to flower. We always seem to have lots of small ones, increasing well in number, but not 'growing on' in size very satisfactorily. So, it looks as if we shall be sticking to potatoes, at least for the time being. A pity, as I rather like the idea of saying to dinner guests: "Would you care for another helping of *Cyanella*?" [cooked, of course!]. Maybe followed by a bulb liqueur? (see p.19).

## What is *Iris vorobievii*?

Whilst looking through *Index Kewensis* for various references recently I came across the name of an iris which was quite new to me. Not that this is unusual since the *I.K.* is littered with obscure names, many of which turn out to be old and forgotten synonyms for something else and mostly in the original *I.K.* or the earlier Supplements. This name, however, was a bit different since it was published only 10 years ago by a Russian taxonomist. As yet, it is not known to be in cultivation so all I can do is to extract information from the Latin diagnosis and pass it on, in the hope that we can provide a follow-up some other time when it has been assessed more fully.

*Iris vorobievii* was described by N.S.Pavlova in the *Plantae Vasculares Orientis Extremi Sovietici* Volume 2, page 424 (1987). This is a Flora of the far eastern regions of the former U.S.S.R. and this new *Iris* is from an area to the south-east of Vladivostok, on the Russian side of the border with China near the town of Kraskino. Although the habitat is given as stony slopes, the *Iris* is presumably found at fairly low altitude since this is a comparatively narrow strip of land between China and the Sea of Japan without any mountains of any significance.

The type specimen of *Iris vorobievii* was collected on June 2nd 1964 by K.D. Stepanova, G.E.Kurentzova, Z.G.Valova and D.P.Vorobiev, after whom it is named, and is deposited in the herbarium at Vladivostok with a duplicate in St. Petersburg.

The author places *I. vorobievii* in the section *Hexapogon* which, following Rodionenko's classification, contains the subsections *Regelia*, *Pseudoregelia* and *Oncocyclus*. More specifically, it is compared with *I. humilis* (*I. flavissima*) the small yellow bearded arillate-seeded iris which occurs widely in eastern Asia, even as far west as eastern Europe if *I. arenaria* is included in it. These irises were allocated a section of their own by John Taylor, namely section *Psammiris* which translates as the sand-iris (*I. arenaria* = growing on sand). If we accept this section, it includes *I. humilis*, *I. arenaria* (if different from the first), *I. bloudowii*, *I. mandschurica* (which may be the same as *I. humilis*), *I. curvifolia* and probably also *I. potaninii* which is the only one to have both yellow and purple-flowered variants (the purple has been named var. *ionantha*).

*Iris vorobievii* is described as being similar to *I. humilis* but having a short, vertical rhizome with many radiating 'accessory' roots and slender bright green leaves up to 25 cm long and 2 cm wide; the bases of the previous season's leaves remain as a brown and fibrous tuft at the crown of the rhizome. The flowers are said to be pale yellow with brown veining and have a pale yellow beard on the falls, and the aril on the seeds is larger.

It would be interesting to see this recently-described species, preferably as a living plant since irises are notoriously difficult to assess from herbarium specimens. So, if we there are any kindly Russian readers who are willing to send us a few seeds, we will be delighted to try them out.

## ***Bulbs for wetter places - by Brian Halliwell***

Bulbs are storage organs which allow plants to survive adverse growing conditions such as summer drought. It may, therefore, seem surprising that there is a small number which prefer permanently damp soils even though they grow satisfactorily in most soils which do not dry out. In this article I am going to discuss a few with which I have had experience.

Three British natives favour a wet soil. Snake's-head fritillary, *Fritillaria meleagris*, in a garden will grow in any moist soil but in nature is a plant of water meadows with the soil always moist, and at times with standing water. Summer snowflake, *Leucojum aestivum*, was once locally common in southern England but is now rare. It was formerly found frequently in the Thames Valley and one of its names, Loddon lily, indicates that it was once common along this tributary of the Thames. [I have seen huge fields of this in Turkey in full flower, completely flooded with water - B.M.] Usually flowering earlier is the spring snowflake, *L. vernalis*, a rare British native found in one or two locations in southern England on river banks, but relatively common in central and eastern Europe.

Three-cornered leek, *Allium triquetrum*, although native of Mediterranean regions, is naturalised in several places in England, especially in the west where it favours a moist soil. It is one of the better white-flowered onions, with substantial tepals of a clean colour. Its strong onion scent makes it unwelcome in the flower garden but it may be grown in a herb garden for flavouring or adding to salads when finely chopped. Along river banks in wet soils grows *A. angulosum* which is widespread in central Europe and extends eastwards into and across Asia. The bulbs of this are eaten raw or pickled. Having virtually no onion smell, it is quite satisfactory for the flower garden. From amongst a few lax, thin leaves a stem arises to about 25 cm carrying an umbel of mauve or pale purple flowers. The North American swamp onion, *A. validum*, comes from coastal areas in California and northwards. From a rhizomatous bulb rise flat leaves and a flower stem to 60 cm with an umbel of up to 30 flowers in shades of pink. Perhaps because all grow in moist soils, the leaves do not start to die as the flower stems develop, unlike many of the 'dry-country' species whose foliage often looks very decrepit by flowering time.

Another North American genus of bulbous plants in which most, perhaps all, the species favour a moist soil is *Camassia*, cammas or quamash. Early settlers crossing the continent were to see prairies in spring covered with blue flowers of cammas, *C. quamash* and *C. leichtlinii*; like the Indians, they utilised the bulbs for food. On my travels I saw a species on Vancouver Island which I was informed was *C. suksdorfii* [usually regarded as a subspecies of *C. leichtlinii* - BM]. It was rather more elegant than other species I had seen, smaller in all parts and with flowers of a richer, darker blue. This was growing in a field where in May when it was in flower there was standing water.

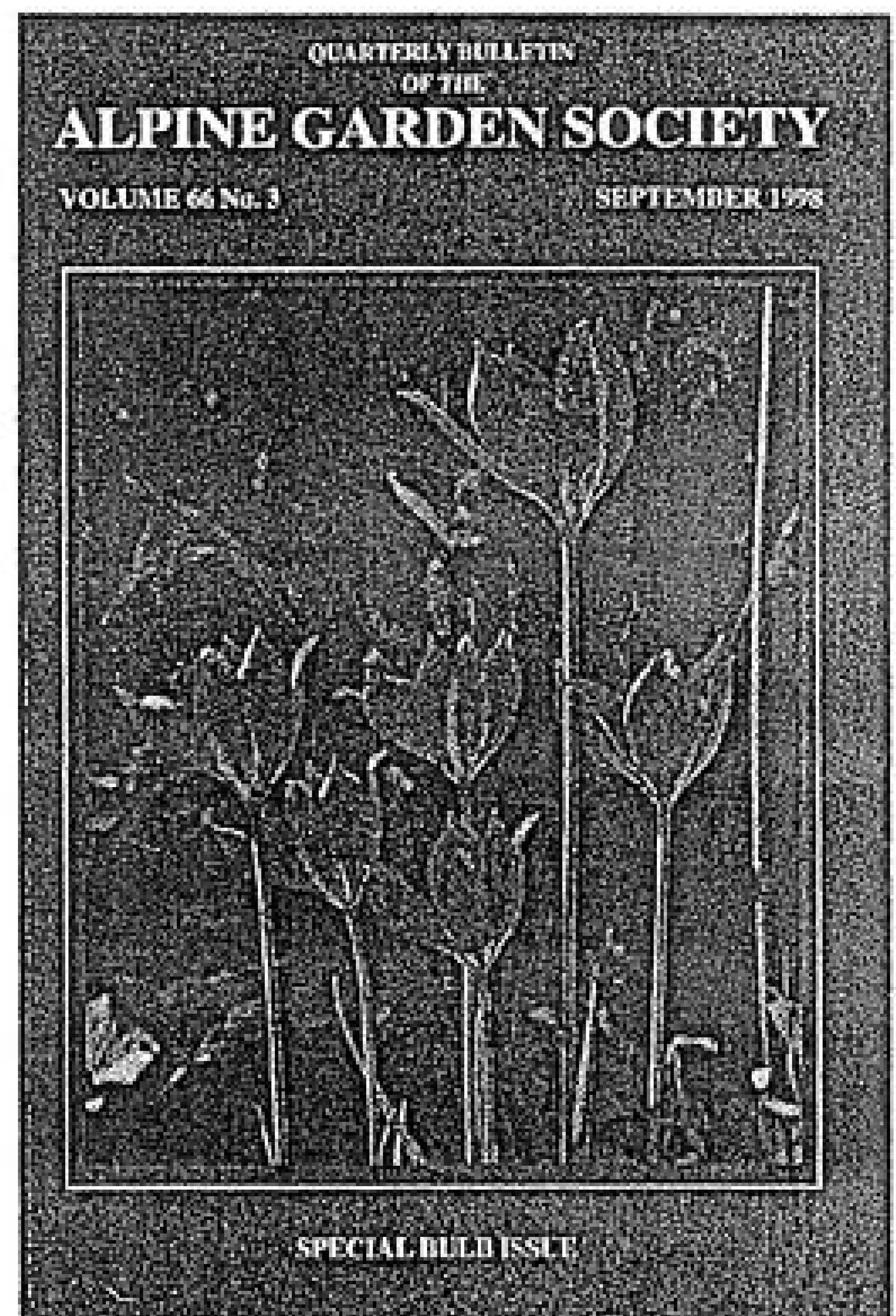
Southern Africa is very rich in bulbous plants and many of those from the

more eastern parts favour wet soils during the growing season but need to be drier in winter when the bulbs are dormant, for example *Crocoscopia*, *Tritonia*, *Rhodohypoxis* and *Saniella*. Some genera are tolerant of both dry and wet soils, and *Zantedeschia* is a good example; *Z. aethiopica*, which is rhizomatous, is being increasingly planted in gardens world-wide in areas where winters are mild, from whence it has escaped into the wild. In many places I have seen it colonising banks of streams, rivers and ponds and it is regarded as a pest in parts of New Zealand and Australia. It grows in a wide range of soils, even tolerating those which are dry in summer. Christopher Lloyd at Great Dixter in Kent grows it in his horse pond.

The bulbs mentioned above are all plants which Brian Halliwell has cultivated or has seen in the wild, but there must be other 'wet bulbs' and this article may prompt suggestions from subscribers as to which 'bulbs' grow naturally in damp to wet places. We can think of a few, such as *Crocus scharojanii* (*lazicus*) which grows in running water in the mountains of north-eastern Turkey and never really dries out in summer. The brilliant turquoise blue *Bellevalia forniculata*, also from eastern Turkey, and its blackish-blue relative *B. pycnantha* also colour the water meadows in places. Perhaps one of the most extreme cases is *Crinum natans* from West Africa which grows in streams, its long leaves trailing in the water and the umbels of white flowers standing up above the surface!

### ***A most delectable Bulletin***

The September number of the *Quarterly Bulletin of the Alpine Garden Society* arrived just recently and, for bulb enthusiasts, is probably better than any of the pills and powdery stuff peddled in seedy night clubs. This is one which the Editor, Kit Grey-Wilson has been putting together for some time and it certainly does not disappoint. There is something for all hardy bulb freaks here, from a beginners' guide to growing bulbs (Vic Aspland) to the cultivation of rare bulbs (Erich Pasche), bulb frames (Bob Wallis), bulb propagation (Rod Leeds) and showing bulbs (Kath Dryden). Articles of a specialist nature include Juno irises (Tony Hall), *Galanthus* (John Grimshaw, Matt Bishop & Aaron Davis), *Crocus* (David Stephens), *Erythronium* (Brian Mathew), *Narcissus* (John Blanchard),





hardy orchids (Tom Norman), *Fritillaria* (Jack Elliott), *Oxalis enneaphylla* & its relatives, *Iris winkleri* (Arnis Seisums & Janis Ruksans) and a new species of lily (*L. akkusianum*) from Turkey (René Gaemperle). Robert Rolfe, in inimitable style, gallops through an impressively large selection of the bulb literature, including a welcome reference to this little newsletter - We liked the description of BN as "a gossip-column but with the salacious details and trivia removed" - that is just what we were trying to achieve!

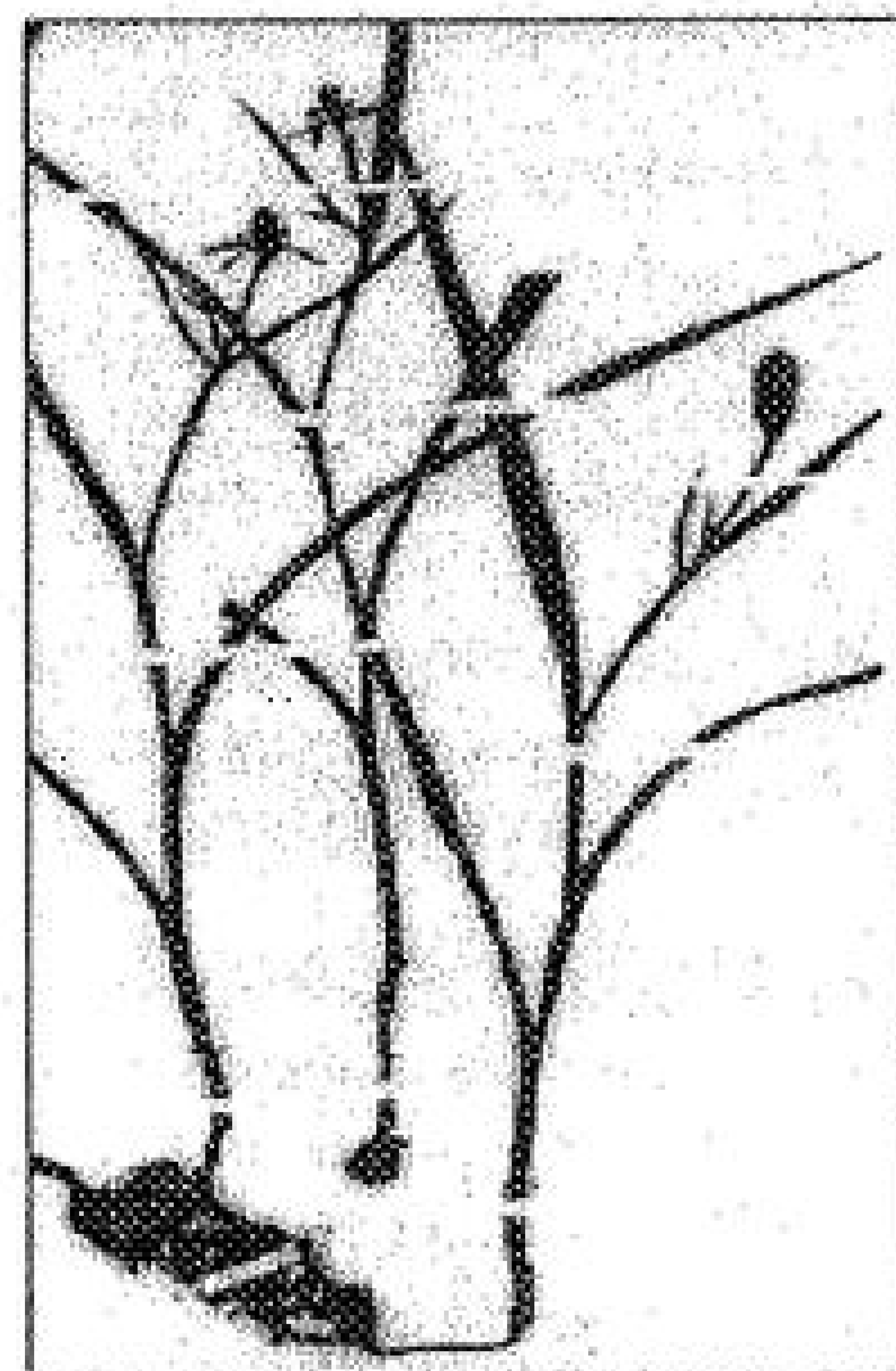
The AGS has always illustrated its bulletins well and currently they are lavishly adorned with colour photographs of an extraordinary standard. This one is no exception. Apart from providing enjoyment, these photographs are very informative and an invaluable source of plant illustration. For example, there is almost certainly the first image ever to be published of *Iris winkleri*, a bulbous iris from Central Asia which has now passed from near-mythology into cultivation following its rediscovery by Arnis Seisums and Janis Ruksans. There are usefully comparative photos of all the yellow Turkish *Lilium* species, *L. ponticum*, *L. monaldepum*, *L. ciliatum*, *L. kesselringianum* and the newly described *L. akkusianum*, all taken by René Gaemperle, and from Alan Edwards some mouth-watering shots of the dark purple *Crocus pelistericus* and yellow *C. cvijicii* in northern Greece. While on the *Crocus* theme, David Stephens' article 'Crocus Desiderata' includes portraits of the recently described *C. paschei* and the extraordinary variant of *Crocus chrysanthus* with a black stigma which is now in cultivation; interestingly, during our Cyclamen Society field study trip to Turkey last year, we saw a similar form, mixed in with many other colour forms of annulate crocuses. *Oxalis* fanciers will find much to salivate over in Peter Erskine's article where we are treated to illustrations of wonderful forms of *O. enneaphylla*, *O. laciniata* (including a deep violet), *O. adenophylla* and the seldom-seen and very choice *O. loricata*. *Narcissus* are well catered for, with photos from John Blanchard of some of the little-known species (e.g. *N. bujei*, *N. radinganorum*, *N. cordubensis* and *N. jeanmonodii*), while Christine Skelmersdale shows us some of the small, excellent hybrids such as 'Elka' (a creamy trumpet type), 'Petrel' (a white Triandrus hybrid) and a particular favourite of ours, 'Mite' (a tiny deep yellow Cyclamineus hybrid). Galanthophiles may well never have seen illustrations of 'Francesca' (an *elwesii* with green external segments), 'Comet' (an *elwesii* with green tips to the outer segments), 'Greenfinch' (a *plicatus* with green tips on the outer segments) and 'Carolyn Elwes' (an *elwesii* with yellow markings). There are good illustrations of several fine erythroniums including a very dark *E. revolutum*, the superb "*E. cliftonii*" (otherwise known as the Feather River variant of *E. multiscapoideum*) and 'Jeanette Brickell', an excellent white with beautifully brown-marbled foliage. Tony Hall's article gives us a good idea of the extraordinary range of Juno irises in the collections at Kew, and the proof is in the array of crisp photos, many of them taken by Andy McRobb of the R.B.G. Kew - rarely seen species such as *I. leptorrhiza*, *I. parvula*, *I. narbutii*, *I. edomensis*, *I. regis-uzziae*, *I. tubergeniana*, *I. postii*, *I. subdecolorata*,

*I. zaprjagajewii* and a lovely form of *I. galatica*; due to a printer's error the latter is captioned *I. galactica* - no, this is not a milky-coloured form, nor is it from the other side of the galaxy, this is the greeny-yellow version from Turkey's Anatolian Plateau, from the region once known as Galatia! Erich Pasche also gives us a demonstration of how to take plant portrait photographs, with a range of unusual bulbs like *Androcymbium rechingeri*, *Bessera elegans*, *Cypella aquatilis* (another one for Brian Halliwell's list of 'wet bulbs' - see page ?), *Merendera filifolia* and *Iris vartanii*. Of course, *Fritillaria* enthusiasts are not left out and Jack Elliott's article is embellished some first-rate photos (mostly by the Editor himself) of a range of species, including (in Bob Wallis' article on bulb frames) a quite amazing pot-full of a deep pink form of *F. gibbosa*. This special part of the *Bulletin* is all a great treat and, in places enough to demoralise one into giving up photography and taking to growing dahlias!

The AGS Editor, Kit Grey-Wilson, tells me that *Bulb Newsletter* subscribers, even if they are not AGS members, can obtain separate copies of this excellent bulb edition for £4.50 plus postage & packing from the AGS Centre, Avon Bank, Pershore, Worcestershire, WR10 3PJ, U.K. (Fax: 01386-554801, from outside the UK: 44-1386-554801. The Centre will also supply details on how to join the Alpine Garden Society if required.

### **An Indian *Iphigenia***

An article by D.A. Patil, 'Taxonomic observations of *Iphigenia magnifica*' caught the editor's eye not long ago, in the *Journal of the Indian Botanical Society* 76: 137-138 (1997). This stood out because the combination of the genus *Iphigenia* with the epithet *magnifica* seems somewhat contrary to expectations. Those who are familiar with these members of the *Colchicum* group of Liliaceae - currently recognised as a separate family Colchicaceae - will know what I mean, for they are mostly fairly (or even very) insignificant in terms of display. My entry in *Growing Bulbs* (Batsford, 1997) notes that there are about 16 species in Africa, Madagascar, India and Australia and that they have racemes or cymes of small 'spidery' flowers with very narrow green, brown, or reddish segments. So, what of *I. magnifica*? This does sound slightly more promising. It was described not so long ago by M.Y. Ansari and Rolla S. Rao who separated it from the widespread and better-known *I. indica* on account of its overall size (up to 60 cm in height), branching stem, longer flower stalks and numerous flowers, up to 30 in each inflorescence. As with *I. indica*, the



flowers are dark brownish-purple. In the case of *I. magnifica* the perianth segments are 1-2 cm long, giving a flower diameter of about 2-4 cm but they are only about 2 mm wide so there is still the 'spidery' appearance which makes them unexciting to all but the hard-bitten enthusiast. In the more recent article by D.A.Patil, there are various comments about the species, based on field observations over a period of time and updating some of the information given in the earlier paper. For example, there are remarks about its flowering and fruiting times (June to October) and its distribution. The author has found that it and *I. indica* can occur together and that one of the best ways of distinguishing between them in the field is to count the number of veins in the leaves: 9-11 in *I. magnifica* and 5-7 in *I. indica*. To give an idea of the habit of growth of iphigenias, a dried specimen is shown here. The underground part is a small corm, in appearance somewhere between a small *Colchicum* and a *Gloriosa*; the whole structure of the plant does perhaps help one to understand the link between these apparently very different genera.

The genus *Iphigenia* makes up for its lack of ornamental appeal by being of considerable value as an important source of colchicine which is used, for example, in breeding experiments for inducing chromosome doubling. Since this is mainly extracted from the seeds, *I. magnifica* is particularly useful because of the large number of flowers, resulting in a better yield per plant.

### **More of Mary's lilies**

When Mary Randall telephones the BN office (i.e. home) with the latest query it is not always possible to give a definitive answer immediately, but it keeps us in employment and provides interesting items for the Newsletter. Thanks, Mary!

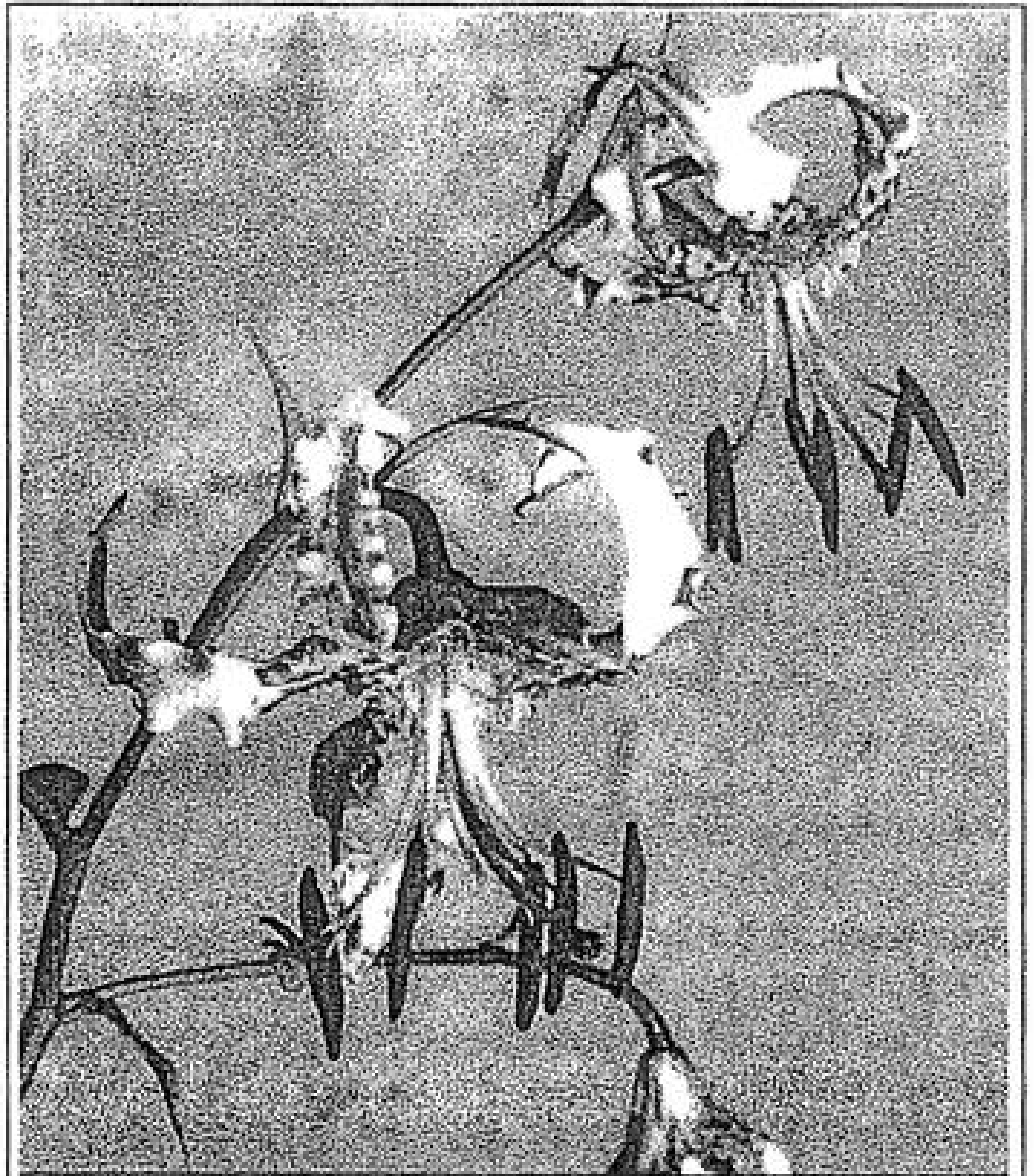
*Lilium speciosum* var. *gloriosoides* has been a familiar name for over thirty years; Paul Furse used to grow it in the 1960s but I have not seen it in cultivation for a long time now. Several others including Alisdair Aird, Robert Pardo and John Amand have just flowered it from bulbs recently imported from China so it seemed the right time to find out more about it.

This lovely lily was first described by the Kew botanist J.G.Baker (see Personalities, BN 11:8) in the *Gardeners' Chronicle* of 1880 and is the variant which occurs in China and Taiwan; the typical *L. speciosum* is from southern Japan. Baker's choice of the epithet *gloriosoides* came about because it had 'much reflexed crisped perianth segments reminding one of those of *Gloriosa superba*...' Although first collected by Père David in 1868 in the Lu Shan (mountains), it was the introduction by Charles Maries in 1878, via Veitch's nursery, which came to Baker's notice. It was this latter collection which Baker described, and the same one that received an R.H.S. First Class Certificate. It appears that there is a certain amount of variation in flower colour and form. The lily nursery of W.A.Constable (1938-39) described it as 'a vigorous grower, with fine glossy foliage and large flowers suffused rose on a white ground with brilliant crimson-scarlet spots.' Ernest Wilson stressed the 'waved



perianth-segments with scarlet rather than crimson spots and papillae which are mainly confined to the third quarter of the segments counting from the top downwards'. Patrick Synge (*Lilies*, 1980) notes that the colouring of the spots differs from typical *L. speciosum* in being brighter red. Stephen Haw, in *The Lilies of China*, 1986 gives the distribution of var. *gloriosoides* as Taiwan and, on the mainland, in Anhui, Jiangxi, Zhejiang, Hunan and Guangxi provinces. He gives the habitat as damp, shady woodland and among herbs on mountain slopes at 650-1200 metres. In cultivation *L. speciosum* requires acid conditions and this variety seems to need the same treatment; in Taiwan E.H. Wilson found it growing on red sandstone cliffs which are likely to have been of an acidic nature.

I have not had any personal experience in cultivating var. *gloriosoides* but, from those specimens I have seen in the past, I would have said that the stems were perhaps more distinctly arching than is typical for *L. speciosum*. However, having grown some bulbs of the true wild Japanese species for some years I can now say that this seems not to be a valid observation since these have noticeably arching growth as well, and Alisdair Aird says that his *gloriosoides* is not arching! So, it seems that we are left with the main distinguishing characteristics of *gloriosoides* as: the wavy perianth segments and the brighter red spots and papillae; it also seems that



*Lilium gloriosoides* - photograph by Robert Pardo

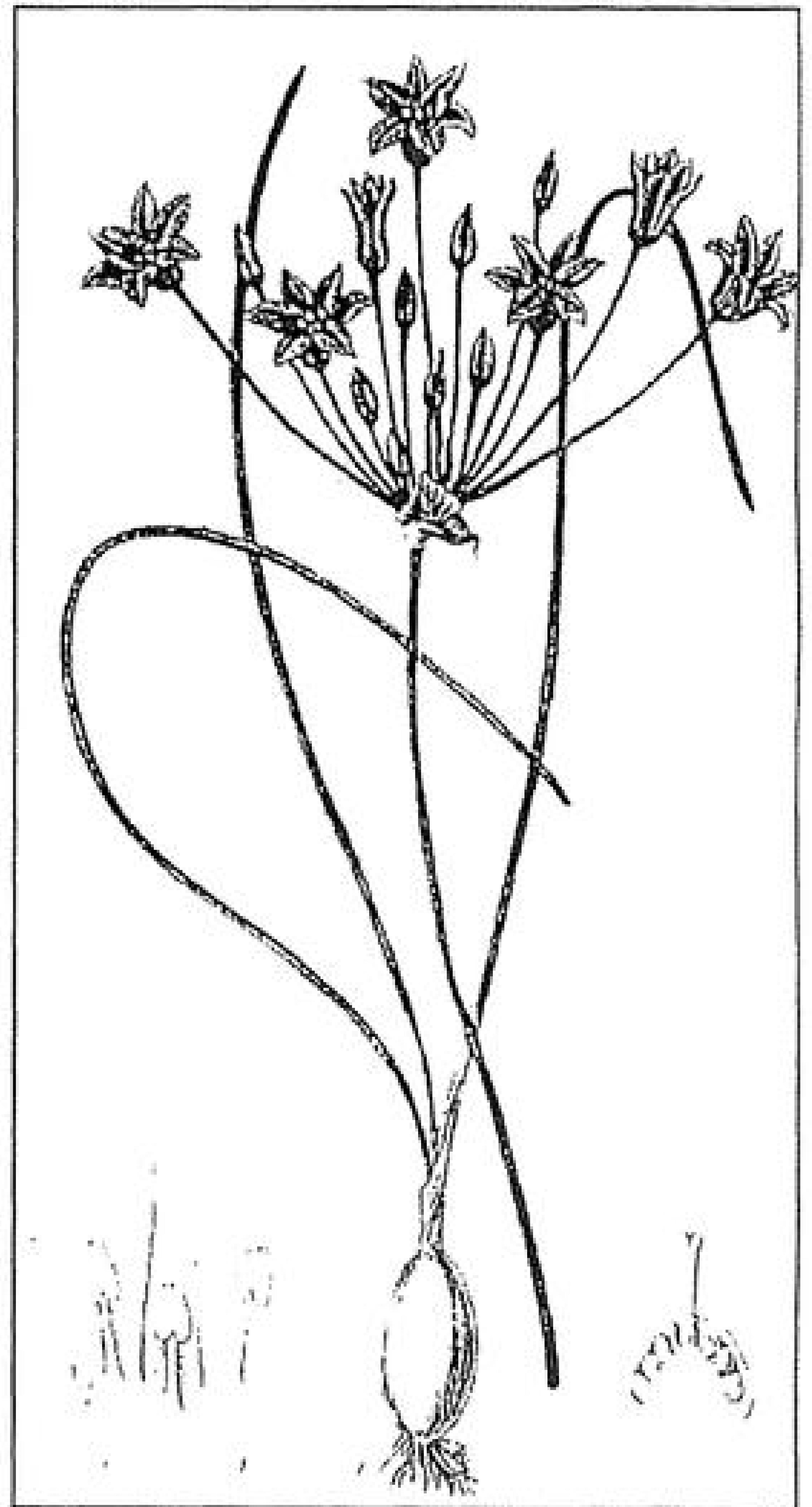
the segments are generally narrower than in Japanese specimens. Certainly the plants currently in cultivation (see Robert Pardo's photo above and the drawing in Stephen Haw's book) indicate a flower with narrow segments, sharply recurved and elegantly waved at their margins; the nectary furrow is greenish yellow.

This lovely species (or variant of *Lilium speciosum*) has not, as far as I know, been in cultivation for some years so let us hope that it is now here to stay for a while.

## ***Plant Portrait of Caloscordum - a modest but useful little bulb***

Although not a showy plant, I always enjoy the modest mid to late summer display of *Caloscordum neriniflorum* and it is so easy to grow without any special treatment. In spite of its name it looks much more like an *Allium* than a *Nerine*, and in fact it has been included both in *Allium* and *Nothoscordum* at various times in the past.

It was first described by William Herbert (see Personalities, BN 14:9) in the *Botanical Register* of 1844, from bulbs which had been sent from China 'from Chusan when that island was occupied by our troops'. It is now known to be fairly widespread in eastern Asia, in both China and Russia. Herbert pointed out the short tube to the flowers and the lack of onion smell as differences from *Allium*, as well as various other characteristics of the stamens and style. He was not one to pass by an opportunity to fire a shot across the bows of other botanists and, on this occasion, he scored more of a direct hit on his rival Prof. Kunth. Speaking of the way in which the plant had been distinguished by Kunth, Herbert remarked that the article 'extends to twenty-six closely printed lines' and that 'The public.....may perhaps expect to find that its separation from *Allium* is strictly defined; but it will be found that it is not directly distinguished therefrom by him in any one respect, and even the important fact of the absence of the alliaceous scent is omitted.' Warming to his theme, Herbert went on that 'here it is necessary to pause and enter a protest on behalf of the public against Prof.



Kunth's work altogether, as compiled on such an injudicious plan, that as to generic characters it perplexes, instead of assisting, the enquirer. Prof. Kunth.....has heaped together in each character every feature he could pick up whether trivial or important, without reference to the character of the plants most nearly allied.....The further evil is that, as the Professor cannot have personally inspected such a multitude of features in every species of every genus, the facts asserted concerning the whole genus will be found in many

respects incorrect.' There is much more!

But let us return to *Caloscordum neriniflorum* as a garden plant. This has a small white bulb which produces a few very slender leaves and leafless flower stems bearing loose umbels of wine coloured flowers; each has a short tube and six spreading segments, sometimes slightly reflexed at their tips. It is a summer grower and dormant in winter. I have not grown it outside in the open since it is not really showy enough for that but I have no reason to suppose that it is not frost hardy. I grow it in an unheated glasshouse in pots in a sandy soil mix and kept nearly dry under the bench for the winter. In spring it is repotted and started into growth again by watering and brought up on to the bench for the summer.

The illustration of it shown here on page 9 is taken from the *Botanical Register* of 1847. John Lindley, who provided the text wrote that 'although this plant puts on an attractive appearance in the accompanying plate, yet we cannot recommend it for ornamental cultivation for it is often much smaller, and its foliage is miserable.'

Well, I like it.

#### *A name for white Crocus longiflorus*

Over a decade ago the late Primrose Warburg brought me (Brian Mathew) a white form of *Crocus longiflorus* from the island of Malta. In addition to being a very attractive variant of this colourful autumn flowering species this proved to be a robust grower and increased well, so some were distributed. Last November Alan Edwards exhibited a pot full of the plant in London and it received a Preliminary Commendation at an RHS show. I am pleased to say that Alan has given it the clonal name 'Primrose Warburg' in memory of the former much-loved Secretary of the Crocus Group. *Crocus longiflorus* is native to the southern Italian mainland, Sicily and Malta. Among the autumn flowering species it is particularly attractive since it has leaves at flowering time, and has a strong perfume. The colour is normally pale to mid lilac-purple with a yellow throat and variable dark striping on the outside.

#### *More Mariposas than in California?*

A postcard received recently from Wim and Hanny de Goede shows a vast field of *Calochortus luteus* 'Golden Orb' growing at their nursery in Breezand, Holland, a sea of yellow from the foreground to the horizon without any protection! This and several other *Calochortus* are grown partly to sell to retailers of bulbs (which is how bulb enthusiasts can obtain them) and partly to other growers for the cut flower industry. They have found that the mariposas are very good for the latter purpose, showy and long lasting. The firm of de Goede grows many other interesting bulbs in large quantity, notably fritillarias, and has put on to the market, via retailers, quite a number of unusual species or selections of them such as *F.glauca* 'Goldilocks', *F.affinis* 'Limelight', *F.purdyi*, *F.biflora* 'Martha Roderick' (*F.roderickii*), etc. *Calochortus* 'Golden Orb' is a selection of *C. luteus* with deep yellow flowers with brown markings in the centre. A decade ago, whoever could have forecast that we would be seeing fields of *Calochortus* in Europe by the end of the century!

## Personalities in the Bulb World - 9

The name of Theodore Kotschy lives on in bulb circles through species such as *Crocus kotschyanus*, *Gladiolus kotschyanus*, *Colchicum kotschyi* and *Fritillaria kotschyana*, and he described many others including *Crocus karduchorum* and *Iris junonia*. Although those of who are interested in bulbs of the northern temperate regions know his name quite well, he was in fact more renowned for his explorations in tropical Africa than in western Asia.

Kotschy was born in April 1813 in a village near the Carpathian Mountains and was set to follow a theological career in the footsteps of his father. However, he preferred botany and we find that even at the early age of 12 he was collecting specimens of trees in the Krakow Botanic Garden and taking part in botanical forays to the Carpathians, making herbarium specimens of the local flora and distributing them to eminent botanists. His reading matter included accounts of the travels of Cook, von Humboldt, Forster and Banks and these kindled a desire to make similar journeys. By the time he



Theodore Kotschy (1813-1866)

was 20 he had made himself known at several of the famous university botanic gardens such as Dresden, Berlin, Jena and Leipzig and Vienna. At the last of these he became involved in identifying collections of plants from the West Indies, and travelled widely in the Alps and the Balkans, including Croatia and some of the Adriatic islands. This experience in travelling and collecting made him an obvious candidate for expeditions and on his first major venture he was employed as botanist and zoologist on an expedition to assess the mineral resources of parts of the Middle East and Africa under the leadership of Dr Joseph von Russegger. The expedition sailed from Trieste in January 1836 and stopped off at Corfu and other parts of Greece, including Crete where they climbed Mt. Ida. They arrived in Egypt in spring, then moved on to Syria, Palestine, Lebanon, Cyprus and farther north into the upper reaches of the Euphrates. Needless to say, during the three years of the expedition there were many hardships - illness, hunger, thirst and , perhaps most devastating of all to a botanist, the saturation of some 10.000 specimens during a storm! At the end of this expedition in Cairo, rather than returning to Europe he alone elected to remain behind to push further into Africa to Khartoum and beyond. However, this venture was cut short and he was ordered to abandon the expedition, arriving in Khartoum nearly destitute. The later part of his life was spent on various journeys through the Middle East, in eastern Turkey, Iran, Syria, Iraq and Cyprus between 1841 and 1862,



during which time he collected many of the bulbs with which we connect his name. He cleared his debts by selling the specimens, a fairly frequent source of income for botanists of the period. The herbaria contain a wealth of specimens prepared by Kotschy and works such as Boissier's monumental *Flora Orientalis* and *The Flora of Turkey* owe a great deal to his tenacity and enthusiasm.

### **Now, where was I.....?**

Oh yes, a news item seen not long ago involved a possible cure for the dreaded Alzheimer's Disease, using a drug developed from two of our most familiar bulbs. Clinical trials have shown that galanthamine, extracted from snowdrop and daffodil bulbs, can slow down or perhaps halt the advancement of the condition. Allegedly, the trials indicated that mildly affected patients showed no further deterioration if treated with the drug, whereas the control group continued to decline. If approved by the regulators, the new drug will eventually be made available.

But Please don't try mixing up your own!

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### **New Genus! - or rather, a new name for an old plant**

The curious little annual *Alstroemeria* of Chile, *A. graminea*, has been removed from the genus into a new one of its own, *Taltalia* by E. Bayer (the article is in *Sendtnera* 5: 5-14,1998). This makes five genera in the family Alstroemeriaceae: *Alstroemeria*, *Bomarea*, *Leontochir* (see BN 18:12), *Schickendantzia* (a dwarf, yellow-flowered plant which some people will know as *Alstroemeria pygmaea*) and the new *Taltalia*.

*Taltalia graminea* is a small slender annual only 2.5-10 cm in height, lacking the fleshy or tuberous roots of the alstroemerias, with leaves which are not or scarcely twisted lengthways (twisted leaves are characteristic of alstroemerias) and only 1.5-6 mm wide. The flowers are borne singly, are about 16 mm long and white or pinkish with yellow and brown markings. It is a Chilean endemic, occurring only in coastal regions.

### **Sunken Roscoejas**

As a result of studies by Te-lin Wu, two *Roscoea* species from China have recently lost their status as species. In a paper published in *Novon* 7,4:441 (1997), Dr. Wu proposes that *R. pubescens*, which was described from Sichuan only 10 years ago in 1988 by Z. Y. Zhu, should be regarded as a variety of *R. cautleoides*, differing only in having hairs on the sheaths and undersides of the leaves and in slightly longer fruits. The other change involves *R. sichuanensis* which was described by Miao even more recently, in 1995, from Mt. Siga, Sichuan; this is now treated by Te-lin Wu as a straightforward synonym of *R. humeana*.

### **International Daffodil Register and Classified List - 1998**

A lengthy title for a meaty tome. This 1166-page work will be of value to *Narcissus* enthusiasts, growers, hybridists, gardeners, botanists, authors, artists and photographers. Primarily it is a descriptive list of all registered (and some unregistered) cultivars but it also includes the botanical names of all the known species and their variants. Each name is provided with as full an entry as possible, giving the category to which it belongs (i.e. Divisions 1-12 of the horticultural classification), the colour (White, Green, Yellow,

Orange, Red or Pink) of the perianth and corona, the originator's name and the registrant's name, date of registration, the parentage, any seedlings numbers that have been attached to it, followed by a description which varies from almost nothing to quite detailed depending upon how much has been recorded in the past. Apart from the overall size of plant and the shapes and sizes of perianth segments and corona, useful supplementary bits of information are provided here, such as flowering season (early, mid, late), fragrance and whether the flowers are 'sunproof'. Chromosome counts are given when available and any horticultural awards (AM, etc.) are also noted; a code letter attached to the RHS awards indicates the reason for the award, for example whether it is for cutting, for growing in an alpine house, garden decoration, showing or for use in pots and bowls. There is a glossary of descriptive terms with drawings, an illustrated guide to the 12 Divisions of the horticultural classification and a useful plan showing a botanical classification of the wild *Narcissus* species and their variants. This is based on that of A. Fernandes but revised to include the various taxa described since he constructed this in 1968. In this respect, the compiler Sally Kington (the International Daffodil Registrar) has acknowledged the help of John Blanchard. Peter Brandham explained the significance of chromosome numbers and supplied the appropriate information, and many others also contributed to this valuable piece of work. It ends with an A-Z list of daffodil raisers and registrants.

### ***Disappearing bulbs***

Most gardeners lust after someone else's plants from time to time and, quite often, if they own up to this bit of harmless covetousness, some seeds, cuttings or spare bulbs will be forthcoming, such is the good nature of most plants-people. In any case, it is usually a reciprocal arrangement. However, this is not a perfect world and sadly things do disappear from time to time without the knowledge or approval of their owner.

Recently Rupert Bowlby phoned us in a state of great annoyance to say that a considerable number of his South African bulbs had gone off with a stranger, just before he was due to fulfill his orders for the season. Not only had the entire stocks of some of them gone, but in some cases this represented 15 years of work while the numbers were being built up. These included *Gladiolus priorii*, *G. citrinus* and the cultivars 'Christabel' and 'Gillian' (for both of which, I note from *The RHS Plant Finder*, Rupert is the only listed commercial source). Some *Moraea* species and various other Cape bulbs were also missing.

Unfortunately this is clearly not a trivial 'nicking' of a few pretty plants by a member of the great British public. In view of the numbers stolen it suggests that a professional may have been at work. Unfortunately, unlike works of art and the family jewelry, when plants are subsequently offered for sale somewhere else they look like any others of the same species. Electronic tagging perhaps?

The Registry and List is available through the publishers, the Royal Horticultural Society, from RHS Enterprises Ltd., RHS Garden, Wisley, Woking, Surrey GU23 6QB. Tel: 01483-211320; Fax: 01483-211003. Price £19.95 plus postage of £4.50 (UK) or £6 (outside UK, surface mail). [Payments not in Sterling have a £20 bank surcharge].

## Another *Narcissus* hybrid

There seems to be no limit to the number of wild *Narcissus* hybrids. The latest one we have come across is *N. x somedanus*, described by M. Ángeles Fernández Casado, Herminio S. Nava and Francisco Javier Suárez Pérez in *Fontqueria* 48: 29-34 (1997). It is said to be a natural hybrid between *N. asturiensis* var. *villarvildensis* and *N. triandrus*; unfortunately the former variant is unknown to us so that will need checking on for a future BN. An illustration accompanying the description shows an attractive small plant with a funnel-shaped corona, expanding gradually to the serrated mouth, not widely expanded as in *N. asturiensis*. The perianth segments spread out at right angles to the corona, not reflexed as in *N. triandrus* nor suberect as in *N. asturiensis*. The flowers are described as concolorous (uniformly coloured), and paler yellow than those of *N. asturiensis*. The paper includes quite a lot of detail about pollen fertility, chromosome data, anatomy of the flower stem and leaves.

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### *Narcissus abscissus* in Corbière

In another paper in the same part of *Fontqueria* (see above), p.186, Philippe Danton has re-identified the daffodil that grows on the summit of l'Alaric on the way towards Moux, in the Corbière range, Aude in France, as *N. abscissus*. It was previously identified as *N. moleroi* by Fernánde Casas. Unlike the latter, which has white or very pale creamy-yellow flowers, *N. abscissus* has bright yellow perianth segments and a pale yellow corona. Looking through John Blanchard's *Narcissus - A Guide to Wild Daffodils*, it seems that John probably knew about this when he wrote the book in 1990, since he refers to *N. abscissus* as occurring in the Corbières as well as the Pyrénées.

## Stamps

Robert Pardo recently sent us his new catalogue (see p.18 - 'La Pivoine Bleue') and a colour photo of *Lilium gloriosoides* (see p. 8). The attractive République Française 4.50 Franc postage stamp of the Parc des Pyrénées shows *Lilium pyrenaicum* and a chamois against a backdrop of mountains.

## The Obligatory *Allium*

As noted in a previous BN this is a fairly regular item, and so, for those who would be disappointed if we did not have one, here it is, thanks to Nikolai Friesen & Neriman Özhatay. In *Feddes Repertorium* 109:25-31(1998), they describe *A. pseudoalbidum*, a member of the subgenus *Rhizirideum*. This is the group of alliums which usually have a tufted habit, forming slender bulbs attached to a branching rhizome, rather like chives. It is very similar in this respect to the commonly-cultivated *A. senescens* (and its variants *montanum*, *glaucum*, etc.). The new species is Turkish, occurring in the north-eastern province of Kars. It is described as tufted, about 8-10 cm in height with slender, thread-like leaves to 1.5 mm wide and small, loose umbels of white

flowers, each about 4 mm long; the perianth segments have a pink mid-vein. Usefully, the paper does much more than just describe the new species. There are descriptions and drawings of other Turkish species in the *Rhizirideum* group and an identification key to the nine species that occur there. They are *A. cepa* (the onion, cultivated), *A. hymenorrhizum*, *A. czelgauricum*, *A. albidum*, *A. pseudoalbidum*, *A. scabriscapum*, *A. pseudostrictum* and *A. szovitsii*. Apart from the onion which is cultivated widely in Turkey, all of the native species of the group occur in the north-east, that is in the cooler, damper parts of the country. This is typical of the *Rhizirideum* group as a whole, tending to prefer mountain habitats or moister places and this means that they are reasonably easy garden plants; unless you happen to live in a hot dry area of course!

### **A Newly Discovered Relative for the Autumn Squill**

I doubt if many people have been to the island of Dia. We certainly haven't, and it had to be located on a map before we knew where it was. However, it is not far from the Cretan city of Iraklion off the northern coast of the island about 25 km offshore. Somewhat surprisingly, a new species of *Scilla* has been discovered there by Zaharias Kypriotakis, and named *S. talosii* after the mythological giant Talos which Dias (Zeus) presented to the Cretan King and his son Minos to guard the island. Dimitris Tzanoudakis and Zaharias Kypriotakis have presented their paper in *Folia Geobotanica* 33: 103-108 (1998). They explain that the islet is home to a number of very rare Aegean endemics including *Muscari dionysicum*, one of the *Leopoldia* group. The new species is autumn-flowering and clearly related to *S. autumnalis* but is immediately distinguishable because of the very broad lance-shaped leaves, up to 3.4 cm wide; in *S. autumnalis* they are very narrow and sometimes almost thread like, at most 4 mm wide. The other related species, which is more obviously similar since it does have wider leaves, is *S. obtusifolia*. This is a native of farther west in the Mediterranean region and is recorded in Algeria, Morocco, Spain, the Balearics, Corsica, Sardinia and Sicily. Even here, the leaves do not exceed 25 mm wide, usually much less, and are nearly parallel-sided rather than markedly lanceolate. From the description, drawing, and the comparative table that the authors have provided, it is clear that *S. talosii* is altogether a bigger plant than either of the other two, and with larger flowers. The flower stem may be up to 35 cm long, the leaves to 20 cm long, the pedicels (individual flower stalks) to 4 cm long and the starry flowers 1-1.5 cm across. The colour of the perianth segments is described as whitish lilac whereas in the other two it is usually a somewhat darker purple, pink or blue-violet; in populations of these, however, pale and white forms can be found. Chromosome studies are also in progress and the authors report that *S. talosii* has the extraordinarily high count of  $2n = 150$  (or thereabouts - it becomes tricky counting them at that sort of level!). Whereas *S. autumnalis*



and *S. obtusifolia* are notable for their very early autumn flowering time, often in late summer rather than autumn, *S. talosii* does not bloom until October or November. The habitat is described as rocky slopes and limestone cliffs; only two small populations are known, giving a total of only about 30 plants, so with the present state of knowledge this appears to be a very rare plant. If it is an endemic the potential to increase is fairly limited since the whole islet is only about 5 km from end to end.

## Catalogues

**La Pivoine Bleue** is the name of the new nursery of Robert Pardo who specialises in peonies but has a lot of other interesting hardy plants and bulbs as well. This, the first list from the nursery, contains a number of exciting *Fritillaria* and *Lilium* - *F. delavayi*, *F. mellea*, *F. unibracteata*, *L. bakerianum*, *L. fargesii*, *L. gloriosoides* (see pages 7-8, this issue of BN), *L. lophophorum* and *L. martagon* var. *cattaniae* among others. A real challenge to grow are the *Lloydias* and there are two listed in addition to the widespread *L. serotina*: *L. ixiolirioides* and *L. oxycarpa*. There are also some irises to catch the eye *I. collettii*, *I. kirkwoodii*, *I. sari*, *I. sichuanensis*..... If this is a sample of the wares of this new venture we look forward to receiving future editions. **La Pivoine Bleue, "A Sechan Dessus", 32 550 Montegut, France.**

The colourful catalogue from **The Bulb Crate** primarily lists cultivars of peonies, irises and lilies. In the last category there are several which are not easy to obtain outside North America, although the \$50 charge for the US Federal Inspection Service and freight charges may deter all but the most avid enthusiasts; in cases such as this it makes sense to combine with a few others to spread the costs. On the other hand, the prices seem quite reasonable by European standards, with \$4-\$6 being the average range. There are several of the Longiflorum-Asiatic hybrids, combining good fragrance (raspberries and roses is the claim!) with some of the colour range from the Asiatic hybrids. Also some of the Orienpets - Orientals crossed with the Trumpet lilies, again very fragrant and vigorous. There are plenty of the classical lily hybrids as well - I still find the *L. henryi* hybrid 'Black Beauty' one of the best. **The Bulb Crate, 2560 Deerfield Rd, Riverwoods, IL 60015, USA. (Fax: 847-317-1417).**

While on the subject of lily hybrids, the list from **Hartle-Gilman Gardens** also has some which are novelties to many of us in the UK. It is too late to order for this year, but gardeners are a patient lot. Needless to say a lot of the lilies listed belong to Divisions 1a to 1c, the upward, outward or downward Asiatic hybrids but these are on the whole good, easy garden plants. I like the sound of the *martagon*-*tsingtauense* cross 'Super Tsing'. As with the above, a phytosanitary certificate costs extra for those outside the United States. **Hartle-Gilman Gardens, 4708 East Rose Street, Owatonna, MN 55060, U.S.A. (Fax: 507-455-0087).**

Jim & Jenny Archibald's extensive seed list arrived recently and contains the usual amazing array of the bulbous flora of the world - an exaggeration of course, but it is pretty impressive. Starting with *Androcymbium rechingeri*, a Cretan endemic (see BN 10-17), we progress through such delicacies as the yellow-and-red *Anemone petiolulosa*, a string of *Bellevalia* spp. (except for the turquoise blue *B. forniculata* rather dowdy, these are for real enthusiasts), a good number of unusual *Colchicum* spp., including some which are unobtainable any other way and a huge list of *Crocus* spp. - *C. adanensis*, *C. gilanicus*, *C. kerndorffiorum*, *C. biflorus* subsp. *pseudonubigena*, *C. leichtlinii*, *C. mathewii*, *C. pelistericus* - I could go on and on, but these are just a few to whet the appetite! Lots of *Cyclamen* and even more *Fritillaria* (*F. alburyana* seeds from cultivated plants is just boasting!). It is good to see some of the bulbous irises on offer since many of them are still rare in cultivation and seed-raised stocks are the best way to 'get them going' - *I. cycloglossa*, *I. kolpakowskiana*, *I. maracandica*, *I. rosenbachiana* and *I. stenophylla* give an idea of the quality of the list. Lots of *Muscari* (I doubt that *M. macbeathianum* has ever been listed before) and I dare not start on *Narcissus* as this is only a little publication - well, just a mention then: *N. bujei* (see BN 21:15), *N. cordubensis*, *N. jeanmonodii*, *N. longispathus*.....*Erythronium* is an 'in' genus, and rightly so, and here is the opportunity to get an instant national collection, including *E. pluriflorum* and *E. pusaterii*. *Trillium*, *Alstroemeria*, *Rhodophiala*, South African *Daubenya* and *Romulea* spp. The hybrid hellebores on the last page are a bit of an anti-climax. Jim & Jenny Archibald, 'Bryn Collen', Ffostrasol, Llandysul, SA44 5SB, Wales.

Another fascinating list arrived shortly after the above, that of John Watson and Anita Flores de Watson with seeds collected during their latest travels in Chile and Argentina. We are used to being impressed by the range of unobtainable (elsewhere) items, and this one is no exception. There are *Tropaeolum* spp. including the much sought-after *T. azureum*, *T. kingii*, *T. hookerianum* and some subspecies of it, *T. rhomboideum* and several others, some *Alstroemeria* (*A. werdermannii*, *A. leporina*, *A. diluta*, etc.), *Leucocoryne* (3 spp.), *Rhodophiala bagnoldii* and *R. splendens*, *Tristagma nivale*, *Zephyra elegans* and *Tecophilaea violiflora*. This last one is quite small compared with its famous relative *T. cyanocrocus*, and often a poorer colour but these seeds are said to be from one of a 'piercing and true blue'. My final selection from the 'bulbous' plants (there are some interesting dicots as well) is, like *Zephyra*, another member of the Tecophilaeaceae, *Conanthera sabulosa*. This is a sand-dweller, the corm deep-seated and producing 'neat basal foliage and wiry flower stem.....broad open-branched inflorescence produces a succession of many pendulous bell-shaped flowers'. These are lilac-blue with darker blotches; this is the first time the species has been offered. To obtain this Seed List no. 6, write to John and Anita at their UK contact address: c/o Silvercove, Lee Bay, Ilfracombe, North Devon, EX34 8LR, England.

For South African customers, **Jim Holmes** has a special offer of the yellow form of *Clivia miniata* at R190, postage extra. This is var. *citrina*, always a much sought-after plant and usually very expensive - Jim quotes specimens changing hands in the United States for over \$1000! He also has a Belgian-raised broad-leafed *Clivia miniata* and the lovely white, fragrant Amaryllid *Eucharis grandiflora* for sale. Alan Meerow thinks that the latter might be a natural hybrid between *E. sanderi* from Colombia and *E. moorei* from Ecuador; it has been much-confused with the frequently cultivated *E. amazonica* from Peru. **Cape Seed and Bulb**, P.O. Box 6363, Uniedal 7612, Republic of South Africa (Fax: (021)-887-0823).

For those who want to try growing a yellow *Clivia* from seed, **Seymour's Seeds** are selling 2 seeds for £9.99 of a variety which is being marketed as 'Butterball', said to have come from 'a breeder dedicated to producing the very best in *Clivia* in both colour and shape'; we are invited to look out for 'a new green colour now in the making'. I am not sure about a green *Clivia*, but gardeners thrive on innovation so it will probably be a great success. **Seymour's Selected Seeds**, P.O. Box 150, Chelmsford, Essex CM1 4QG, England.

It is difficult to pick out special items in Kath Dryden's 'Manavilins' list as there are so many of them. Unfortunately it is getting a bit late in the season to order some of the items since the rarer ones are in small quantities, but I will mention a few just to give an idea of the degree of rarity. For many years we have had the three variants of *Tecophilaea cyanocrocus* - the deep blue one, the paler blue, white-throated 'Leichtinii' and the purplish 'Violacea'; now there is 'Storm Cloud', probably the result of a liaison between the last two. *Corydalis* are always well to the fore in this list and this time I was delighted to find *C. blanda* subsp. *parnassica*, a tricky-to-grow, high-altitude relative of the common *C. bulbosa* (*cava*) with compact growth and white flowers; and *C. conorhiza*, a gorgeous deep purple one from alpine screes in north-east Turkey and even more difficult one to please. Many *Crocus* (*C. danfordiae*, *C. baytopiorum*, *C. scharojanii*...), many *Fritillaria* (*F. camtschatcensis*, two different yellow forms, *F. macedonica*), *Muscari* 'Valerie Finnis' (see BN 22: 15) and a host of *Narcissus* species and their variants. The Manavilins No. 30 list is obtainable from: **Mrs K.N.Dryden, Berries, 30 Sheering Lower Road, Sawbridgeworth, Herts. CM21 9LF, England.**

**North Green Seeds** usually have a good selection of freshly harvested 'bulb' seeds - *Cyclamen*, *Galanthus*, *Erythronium*, etc. Their short list from the June/July 1998 harvest has been out for some time now but in this a more comprehensive seed catalogue is advertised as being available in the autumn. **North Green Seeds, 16 Witton Lane, Little Plumstead, Norwich NR13 5DL, England.**

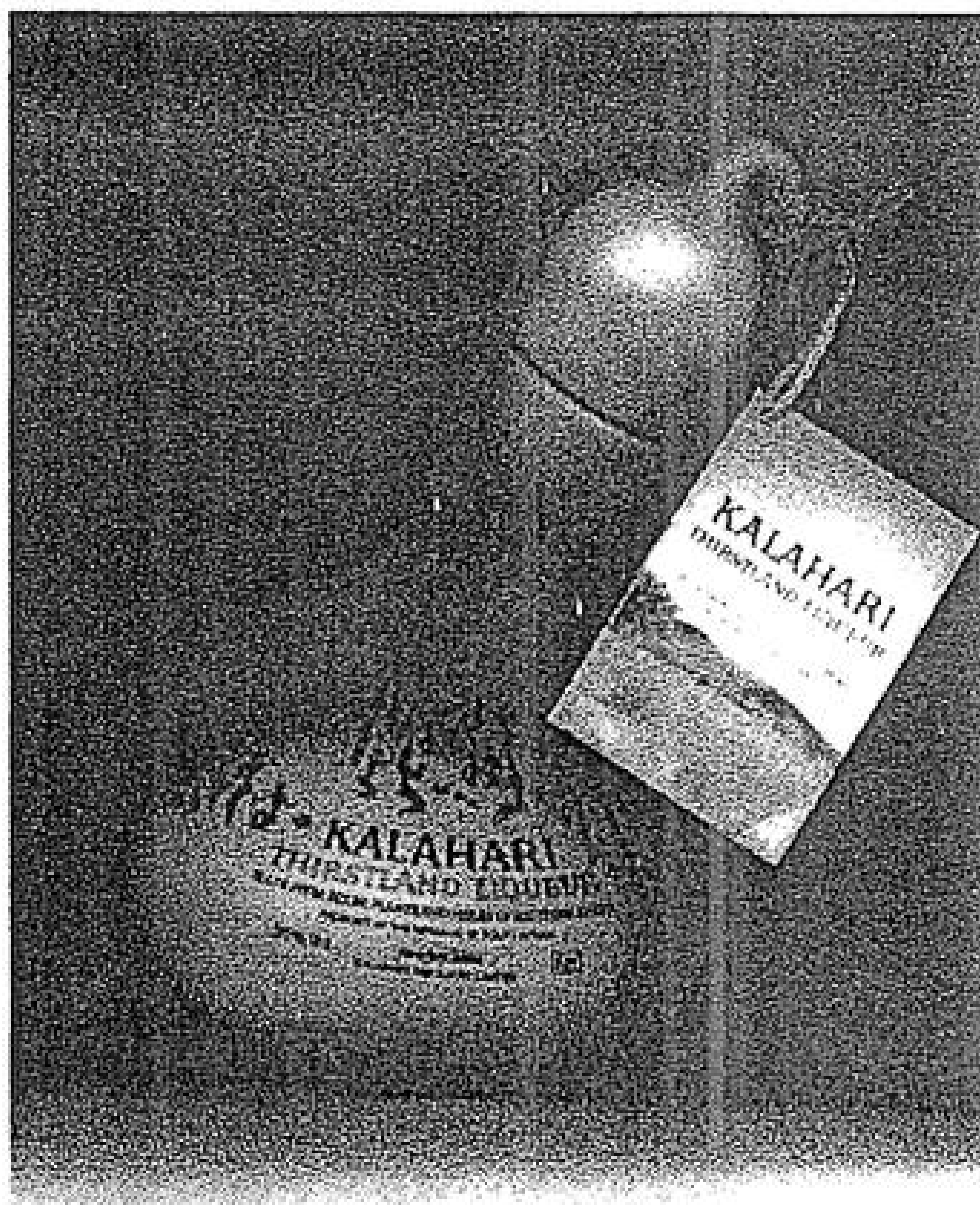
## Bookends

The *Flora of Tropical East Africa*, covering the flora of Kenya, Uganda and Tanzania, has been appearing family-by family for over 30 years, as and when specialists have completed their accounts. The following might be of interest to bulb enthusiasts: Aloaceae (83 species of *Aloe*), Amaryllidaceae, Araceae, Hyacinthaceae, Iridaceae, Orchidaceae (in three separate parts), Tecophilaeaceae and Zingiberaceae. These, and other parts of F.T.E.A., can be obtained from The Mail Order Dept., Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, England, or A.A.Balkema, P.O.Box 1675, Rotterdam, Netherlands.

## Cheers!

Our son Paul returned recently from a most enjoyable trip to South Africa (masses of bulbs in flower of course, just to make us green with envy) and presented us with a very acceptable gift - a bottle (or rather a pottery calabash) of Kalahari Thirstland Liqueur, 'made from bulbs, plants and herbs of Southern Africa', all of unspecified identity, a recipe passed down through the generations of the San people of the Kalahari Desert.

This fairly powerful 'medicine' is said to vitalise and refresh. It is really very pleasant, but the taste is rather difficult to describe - I'll just have to take another sip to see if I can decide, and another, and another, and.....



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*The Bulb Newsletter* is published quarterly and is obtainable from:

B. & M. Mathew, 90 Foley Road, Claygate, Esher, Surrey KT10 0NB, U.K.

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