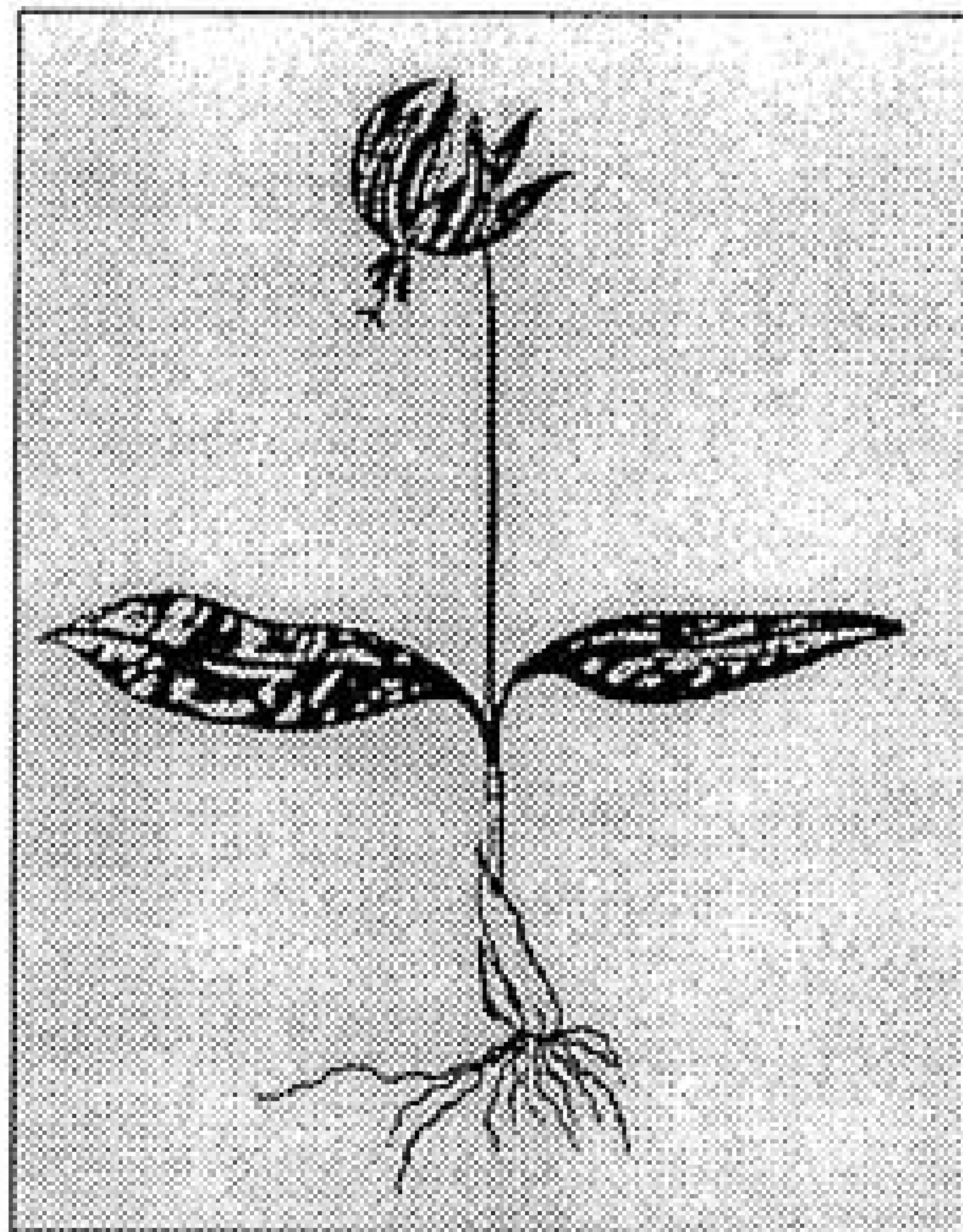


THE BULB
NEWSLETTER



Number 30

April-June

2000

The Bulb Newsletter No. 30

April-June 2000

ISSN 1463-967X

The Bulb Newsletter Team: Brian & Margaret Mathew
90 Foley Road, Claygate, Esher, Surrey KT10 0NB, U.K.

An Iris reticulata relative described

In April 1997 a bulbous *Iris* of the 'reticulata group' (i.e. *Iris* subgenus *Hermodactyloides* or the genus *Iridodictyum* if the group is separated off from *Iris*) was collected in the western part of the Kopet Dag (mountains) of Turkmenistan by D. Kurbanov, N. Czerepova and V. Czerepov. This has subsequently been described and named by D. Kurbanov as *Iridodictyum kopetdaghense* in *Bot. Zhurn. (Botanical Journal)* 83, 6 (1998). It was found near the melting snow on 6 April 1997 between junipers at 2000m.

Iridodictyum (Iris) kopetdaghense is said to be similar to *I. reticulata** but differs in having narrow(er?) leaves that are hardly (i.e. obscurely) 4-angled, very short at flowering time but elongating ultimately to 40-48 cm long; and it has shorter fruits, up to twice as long as wide (in *I. reticulata* reported as being 2 to 4 times as long as wide). In flower colour it appears to be in the dark violet range with a central golden mark on the falls, so little can be deduced from that.

If this is in fact a distinct species, it will create a nomenclatural problem for those who do not accept that the genus *Iridodictyum* should be recognised; for those holding such a view, it means that the new species will need to be transferred to the genus *Iris* - normally a simple paper exercise to validate the combination *Iris kopetdaghensis*. However, there is already an *Iris kopetdagensis* (a species of Juno *Iris*), so this new 'reticulata' of the same name will need to be provided with a replacement name!

Clearly we must now take a closer look at some of the *Iris* collections of Paul Furse in the 1960s and 1970s from the Iranian side of the Kopet Dag since they may also equate with this plant; to date they have been accepted as representing *I. reticulata* at the most easterly end of its distribution.

* It has now flowered in cultivation and looks just like one of the purple-red forms of *I. reticulata*. The leaves are not especially narrow, they are clearly quadrangular and thus look very much like those of *I. reticulata*. Fortunately it is also going to produce capsules so it will be possible to check on this characteristic later in the year.

Dragons by Brian Halliwell

Dragons, or the Dragon Arum, *Dracunculus vulgaris*, is an impressive plant that is rarely seen today in English gardens. It is a tuberous plant from southern Europe which is winter dormant. Tubers are late starting into growth and shoots may not appear until late May. A flower bud pushes through a collar of long-stemmed palmately divided leaves which hang down, later turning upright as the flower opens. In late June there is a typical aroid flower with a more or less triangular spathe, perhaps 10" in height, with slightly incurving margins. This is purplish dark red-brown* and there is a black erect spadix. The reason why this plant is shunned is the fetid stench of its flowers like rotting meat. No doubt this is to attract flies which are the pollinating insects; following fertilisation a spike of red berries develops which are red when ripe. Rare today, it has a long history in English gardens, probably being introduced by the Romans. The first mention I have found is in the Anglo-Saxon Herbarium of the fifth century and subsequently there are mentions by Macer in 1050, Neckham in 1200, Bartholemew in 1240, Daniel in 1375, Fromond circa 1500 and William Turner in 1538. All the famous gardeners of the 17th century knew this plant: Gerard, Parkinson, Tradescant, Rea and Sir Thomas Hanmer. It began to lose favour in the 18th century.

The plant was grown for its medicinal properties. In the Middle Ages, plants were thought to cure by signature. If a part of a plant resembled an organ in the body or there was a suggestion of a disease symptom, then that plant would protect against or cure the ailment. The heavy spotting of the shoot as it pushes through the ground in late spring was reminiscent of a snake's skin so dragons kept serpents from the garden and could be used to cure snake bite. Perhaps the bizarre flower suggested a dragon to uneducated folk so it was planted in a garden to protect from this mythical creature.

Dragons in preparation taken internally stayed bleeding, cured ulcers and eased colds and catarrh. In lotion, it was used to bathe sore and tired eyes to restore their sparkle and it improved failing eyesight. If the body was washed with an infusion, it removed freckles, spots, blemishes, scurf and cured sunburn. The foul smell of the flowers was harmful to pregnant women.

Dracunculus is on the border of hardiness but it will survive outside in southern England if tubers are planted 6" deep; it dislikes soils which lie excessively wet in winter. Plant in an organically rich soil to which lime has been added, in a warm place protected from cold winds. It makes a substantial plant, so the tubers should not be planted closely together, or be crowded by other plants. At flowering time it can be 3 ft high with a leaf spread of 2 ft. This is an exciting plant that will attract admiration, but visitors who insist on sniffing at the flower should be discouraged!

*White-spated forms occur on Crete, as well as intermediates with marbled patterns.

Frits in Curtis's Botanical Magazine

The next part of *Curtis's Botanical Magazine* (Vol. 17, Part 3), which is planned for publication in August 2000, will be devoted to *Fritillaria*. There will be colour plates of *F. affinis*, *F. pudica*, *F. crassifolia* ssp. *kurdica* (the yellow form is depicted), *F. tuntasia*, *F. uva-vulpis*, *F. stenantha*, *F. thunbergii* and *F. involucrata*. The paintings are by Rheinild Raistrick and Joanna Langhorne, and the accompanying texts provided by Martyn Rix, Roger Macfarlane and Brian Mathew. Richard Wilford of the Alpine Section at Kew has written a general article about the cultivation of fritillarias at Kew and there is a paper by Kew's molecular biologists Mark Chase and Mike Fay, discussing the relationships of the genus with others in the *Liliaceae*, based on DNA studies at Kew.

Part 1 of *Curtis's Bot. Mag.* for 2000, already published, contained a miscellany of plants including *Fritillaria davidii* (with text by Martyn Rix).

Part 2 is a 'Turkish Issue' containing six portraits of Turkish plants with supporting articles on the flora and matters concerning its conservation.

Curtis's Botanical Magazine is published for the Royal Botanic Gardens, Kew, by Blackwell Publishers, 108 Cowley Road, Oxford OX4 1JF. There are four parts per year; subscription rates are £35 per year (UK & Europe) and \$69 (USA).

More on Prolonged Dormancy

In 1999 in BN 27 (p. 14) we published some notes about bulbs that have a habit of going into a state of dormancy that is very difficult to break. Maurice Boussard has added to the list supplied there, as follows: "I myself noticed such a phenomenon in several geophytes ["bulbs"], chiefly South African ones (*Ferraria*, *Lapeirousia*) but Neotropical too (*Calydorea xiphioides*, *Herbertia tigridioides*). And they 'skip' one season unharmed, nicely sprouting the following one. That does not happen every year fortunately."

I certainly agree with Maurice in the case of *Ferraria* species which sometimes not only refuse to come into growth at all but are very shy flowering. Often they increase well, and will often produce a 'necklace' of discus-shaped corms, but no flowers. If late summer/early autumn watering is delayed too long, quite a number of the Cape bulbs will stay below ground. It is as if they assume that the rains have failed and decide to sit it out until the next year!

Stamps

Manfred Koenen has sent us an attractive monocot (bulb) stamp from Germany showing a nice yellow terrestrial orchid, probably a *Dactylorhiza*.

Unfortunately the only caption gives the vernacular name, as 'Holunder-Knabenkraut', which has tested the BN reference library to the full. Maybe one of our friends in Germany could oblige with a Latin equivalent?

The Victoria Falls *Crinum* - identity sought

Roy Lancaster sent us a photograph recently taken by a friend of his at the Victoria Falls, with a request for a name. It appeared to be very similar to a *Crinum* that pops up as soon as it rains all over eastern and southern Tropical Africa, so it looked as if this would be a query quickly dealt with.

However, it is always a mistake to take the view: 'that will be an easy one, from a place as well known as that'. Life is never simple and so it proved in the case of this lovely *Crinum*.

Although one can get around it by saying that this is the plant that has been called *Crinum harmsii*, it seems that this might not be the correct answer. The truth is that the crinums of the region are still being researched by Inger Nordal for the *Flora Zambesiaca* account and there is no clear answer just at present.

For the crinums of Southern Africa it is useful to turn to the writings of Inez Verdoorn since her studies of the genus included all the species known up as far as the Transvaal. In *Bothalia* 10, when describing a new species from Waterberg - *C. foetidum* - she commented that before deciding it was a new species she had considered whether it was *C. harmsii* or *C. crassicaule*, but had dismissed both of these ideas since



it looks as if these two might be members of a different group of crinums altogether, that have more erect flowers rather than drooping trumpet-shaped ones as shown in this photograph alongside - but that means trying to interpret some very old and tatty type specimens.

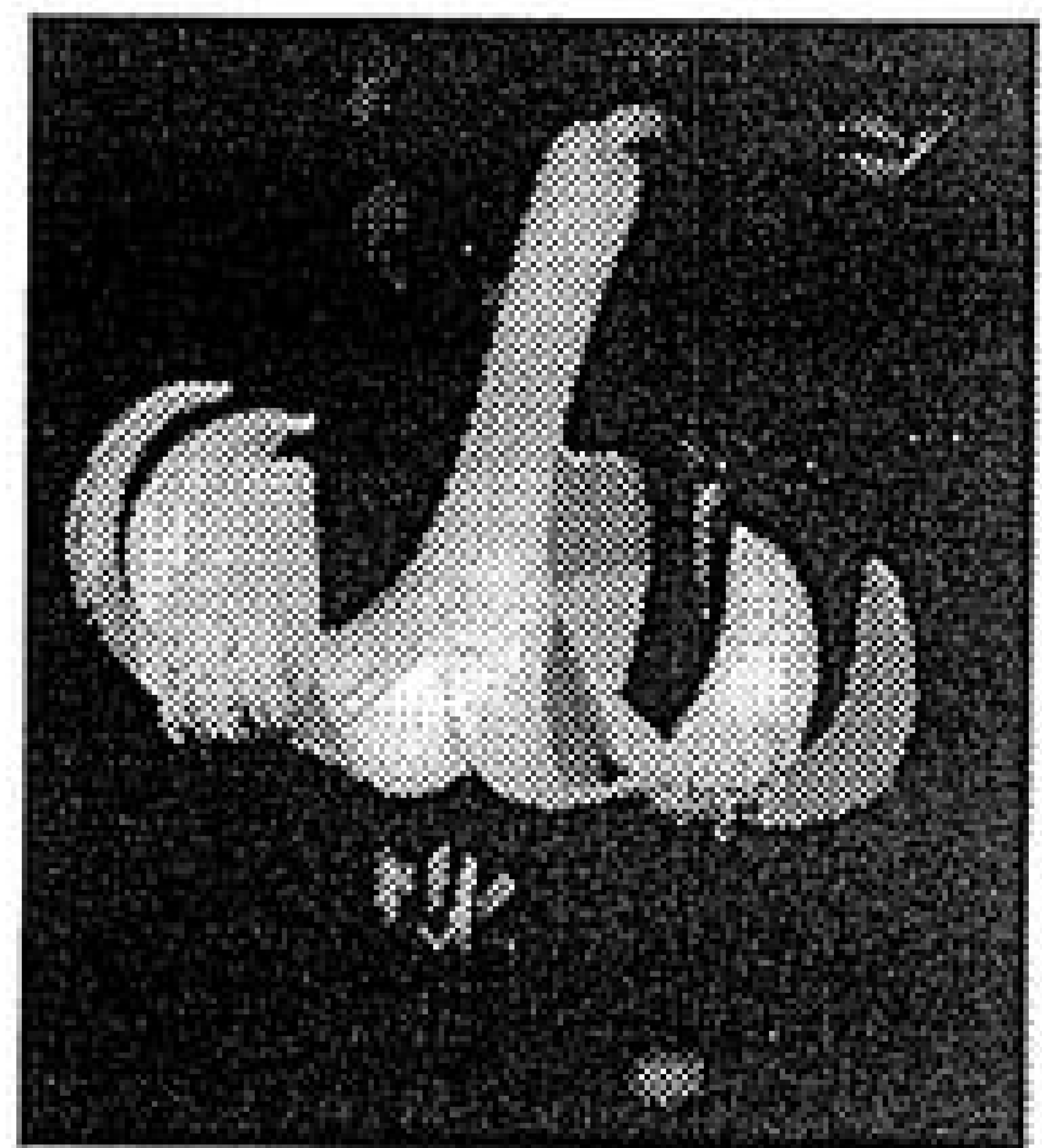
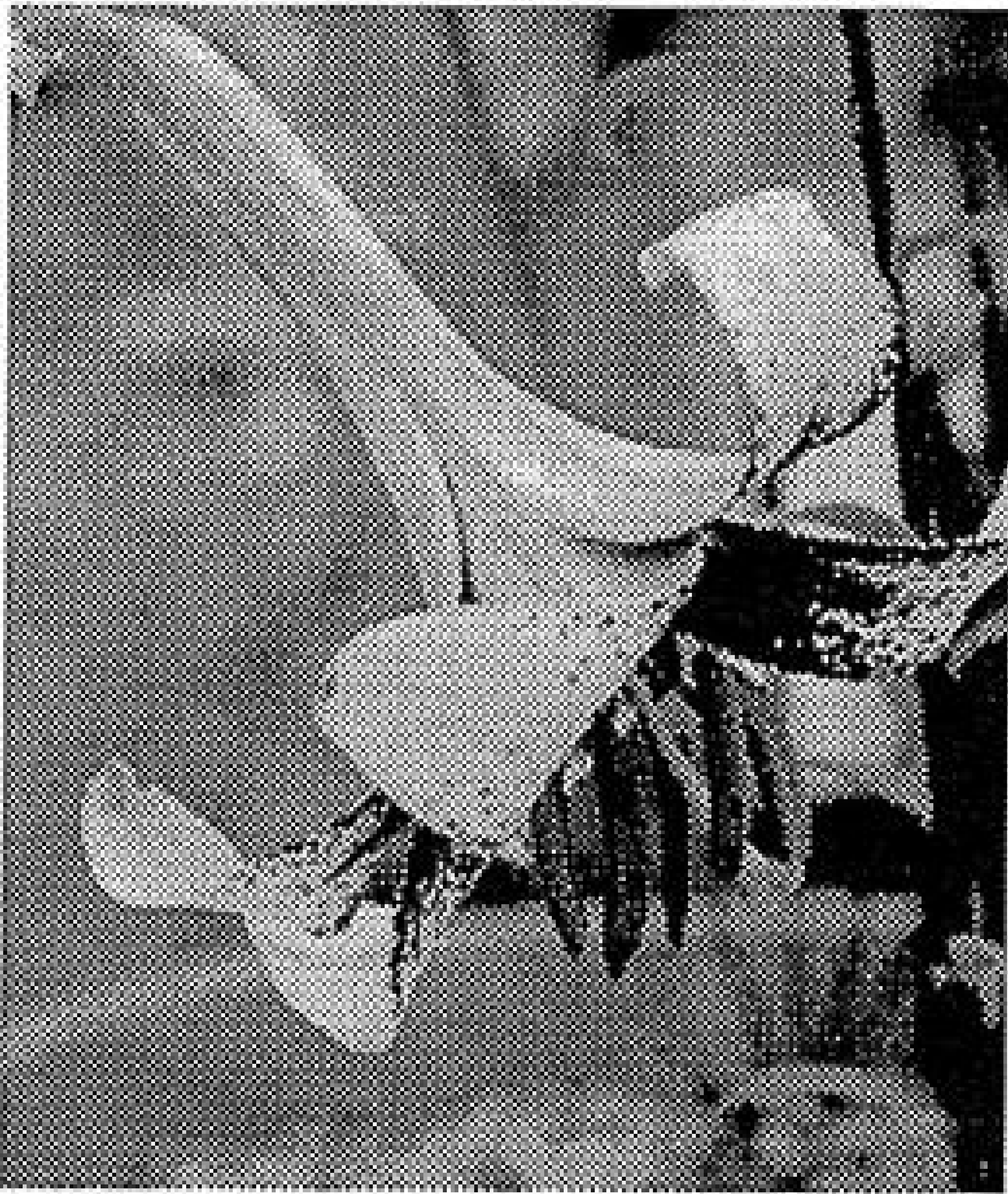
Although Verdoorn was not studying the species from outside South Africa she did make a comment about our plant, that "the photograph published in the *Guide to the Victoria Falls* by H. Wild, page 135, illustrates a *Crinum* which is apparently conspecific with [i.e. the same as] *Crinum foetidum*."

So, sorry Roy - it might be *C. harmsii* or *C. foetidum*. But then again it does also resemble *C. papillosum*, another fairly recently described species by Inger Nordal from Tanzania.....

We look forward to the publication of Amaryllidaceae for *Flora Zambesiaca*, although it seems that this is not imminent. Of course if any BN subscribers have ideas as to the identity, we would be glad to hear.

Another Chinese Puzzle Lily

At the end of last summer several people wrote to us about a very elegant lily that had been imported from China with near-white flowers with a blackcurrant-colored stain in the centre, covering the lower half of the segments. It was clearly causing considerable interest and at the same time confusion over its identity.

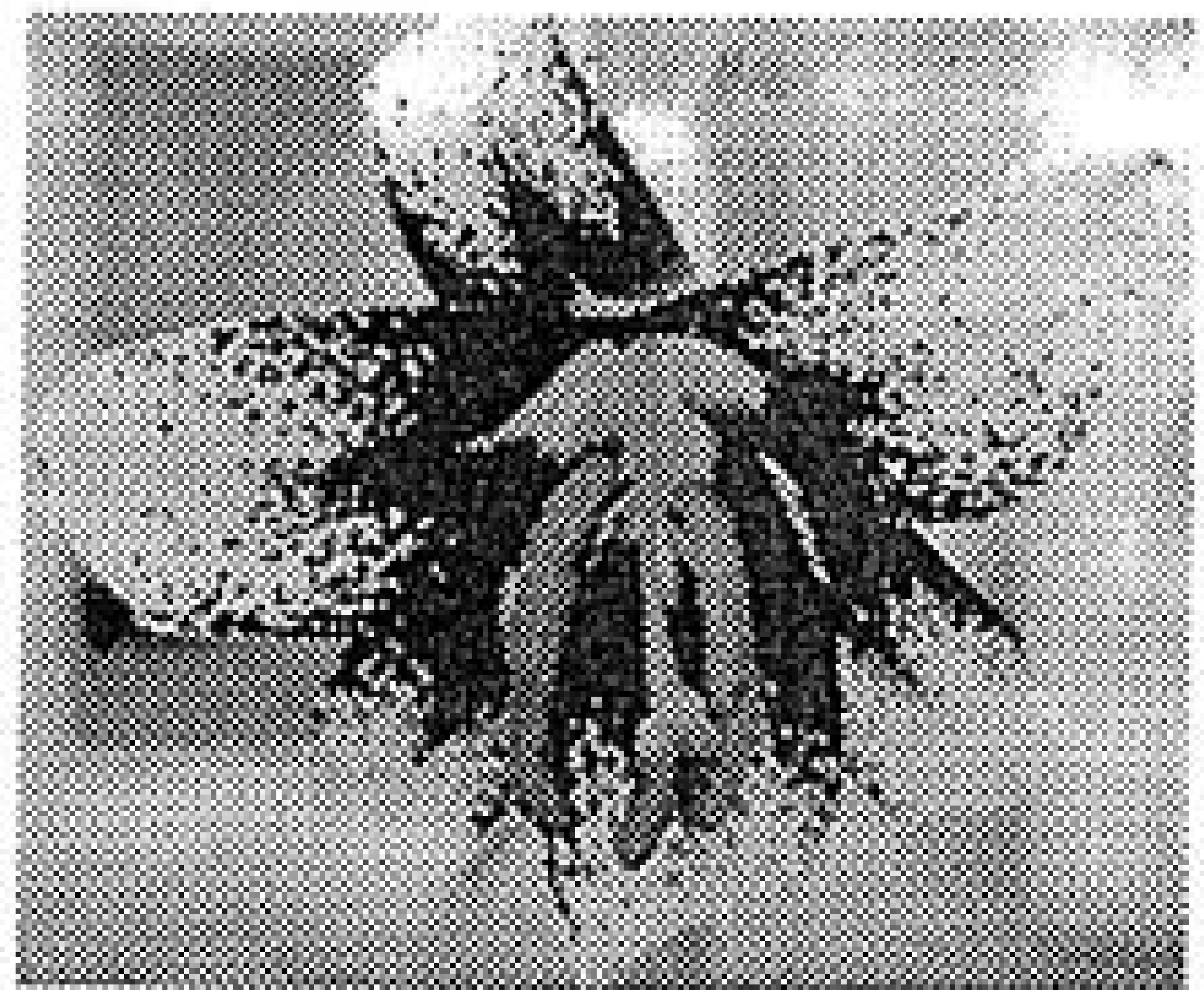


Thanks to Robert Pardo and Raymond Booth for sending in photographs of this Chinese lily, reproduced here.

time to settle down and look into such problems (but I cannot think of anything else that is good about it!).

At first sight it was fairly apparent that this lily had something to do with *L. primulinum* and might well be a closely related (possibly new) one, or perhaps another variant of that species, of which Stearn already distinguishes 3 varieties, including var. *ochraceum*. However, this new import seems to have a rather longer, more slender 'tube' to the flower before the segments start to roll outwards and backwards, as well as the white, dark-centred flower.

It seemed unlikely that such a spectacular plant would have escaped detection during the great period of exploration in China in the late 19th and early 20th centuries. In view of this, it would probably have already been described, so the obvious course was to check on the many



lesser-known lily names that have been attached to Chinese plants.

One in particular seems to fit rather well with our plant - that is *L. majoense* Léveillé, described in 1909 from a specimen collected by J. Cavalerie in 1907.

The elements of the description are as follows:

Stem to 80 cm with smooth, conspicuously 3-veined lanceolate leaves 10-17 cm long, 1.5-2 cm wide, acuminate at the apex. Flowers white, inside coloured dark purple to the mid-point, the shape of the perianth tubular, becoming revolute, the segments lanceolate. The glabrous, furrowed nectary was described as brown whereas in 'our' plant it appears to be green; however, this may have become brown on drying the specimen, or it may vary - probably this factor does not count for very much.

Lilium majoense was collected in 'Kouy-Tchéou' (which I take to be Kweichow, now = Guizhou) at a place called Ma-Jo, in flower on 24 July 1907.

The *Flore Générale de L'Indo-Chine* (1934) does not recognise the species, sinking it into *L. ochraceum* (= *L. primulinum* var.), and the same applies to Woodcock & Stearn (*Lilies of the World*). Some consider that *primulinum* etc. should all be sunk into *L. nepalense*. All that one can say at the moment is that this new importation (a pity we do not know where in China it originated from) appears to conform with what was described as *L. majoense*. Whether or not it should be regarded as a species separate from *L. nepalense* and *L. primulinum* remains to be seen - clearly more field studies are required, as they say!

However, as a passing comment from the BN staff, with that long slender tube to the flower it does look rather distinct so it really should have some recognition.

Botany aside, it is a very handsome plant so let us hope that all those who imported some can keep it going and increase it, whatever it is called!

Digging snowdrops can be dangerous!

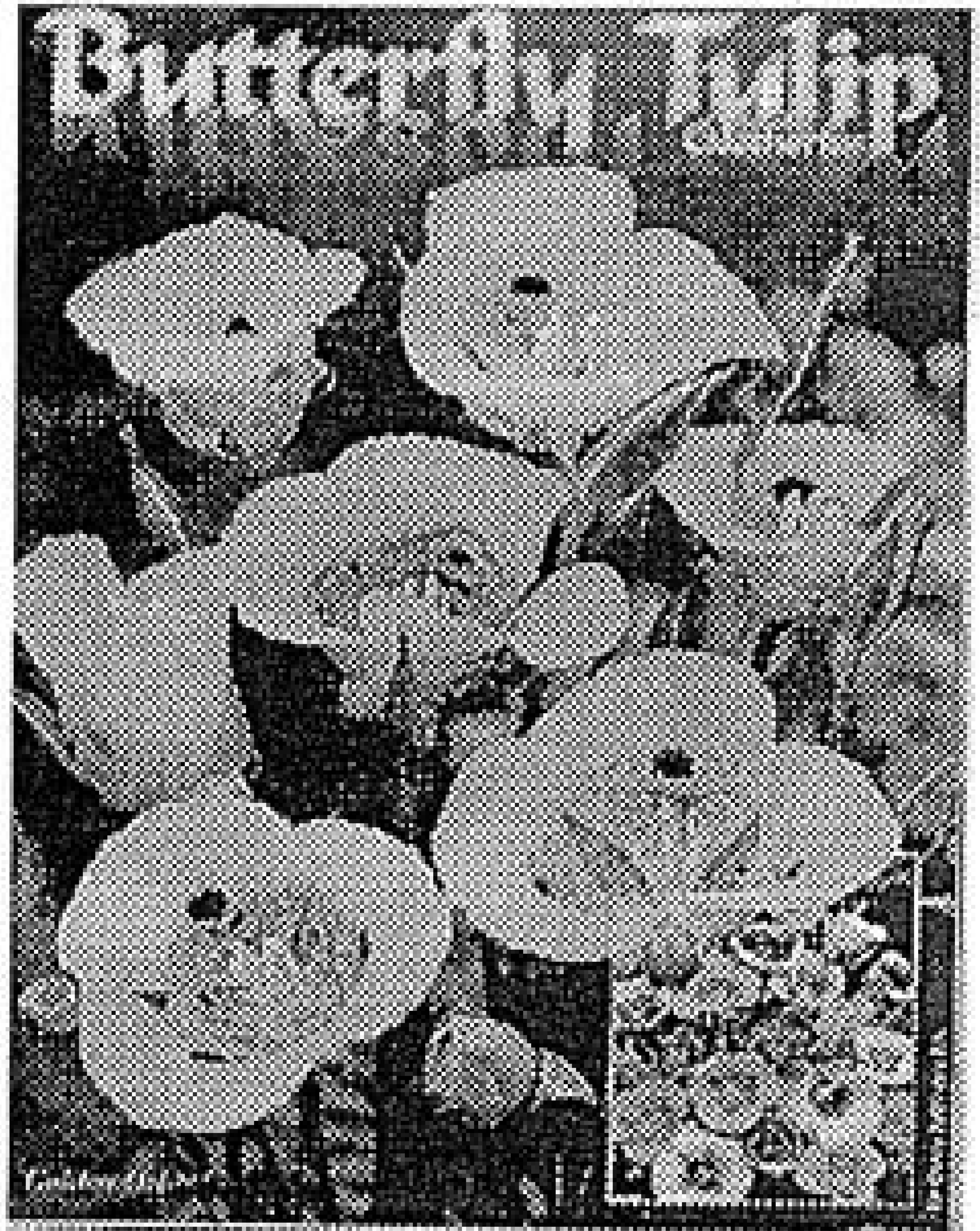
Recently in Britain two men were jailed for 15 and 21 months for collecting *Galanthus* bulbs. On the face of it this might be regarded as a fairly harmless occupation, but in this case the bulbs happened to be in a conservation area and it is alleged that 300,000 were removed, hardly a trivial little amount - but then stealing is stealing whether it is one or 300,000. We make that just over 2 minutes 'inside' for each bulb lifted (what a very apt term in this instance!).

Maybe it would be worth them learning how to do twin scaling whilst detained at Her Majesty's pleasure?

Calochortus at the Chelsea Flower Show 2000

What promises to be a spectacular new display of *Calochortus* at this year's 'Chelsea' is the result of an association between De Goede Bulbivaria in Holland and Broadleigh Gardens in the UK. The Dutch nursery of De Goede (Wim and Hanny De Goede have become familiar visitors here in England) is well known for introducing many species of *Fritillaria* and other 'special' bulbs. In recent years they have been working on *Calochortus*, particularly of the Mariposa group, propagating them in huge quantities; Wim has been showing us photos of the fields of them and it is an extraordinary sight. Broadleigh Gardens will be exhibiting them 'in a naturalistic setting' on their stand. Visitors to the show will see six different species:

C. 'Golden Orb'®, *C. splendens* 'Violet Queen'®, *C. venustus*, *C. superbus*, *C. monophyllus* and *C. uniflorus*. These amazing plants are being marketed under the name of 'Butterfly Tulips' and will be listed in the 2000 catalogue which becomes available in late May (for 2 x 1st Class stamps). Broadleigh Gardens, Bishops Hull, Taunton, Somerset TA4 1AE, Tel: 01823-286231, fax: 01823-323646, www.broadleighbulbs.co.uk



??? What is an Oziroë ???

A small genus from South America in the *Liliaceae* (but more likely in the *Hyacinthaceae* 'bit' of *Liliaceae*), much better known as *Fortunatia*. A few bulb enthusiasts may well have grown, and been disappointed with, *F. biflora* which looks like one of the taller *Ornithogalum* species - a bulb with long narrow leaves and a raceme of white flowers. However the most obvious immediate difference is that there is more than one flower at each 'joint' of the inflorescence whereas all *ornithogalums* (and probably all true members of the *Hyacinthaceae*) have only one. Rather more showy is *F. arida* which is also around in some collections, shorter with much larger white flowers and worthy of a place in the frost-free glasshouse. There has always been much disagreement as to where they actually belong, so inevitably they have been shuffled around in their classification; they have been placed in *Ornithogalum*, *Scilla* and, most recently, have been merged with *Camassia*. This last view has not yet

found much of a following and the group is usually treated as a separate genus, *Fortunatia*. However, P.F.Ravenna has located an earlier name for the genus, *Oziroë*. Several new ones have been described, so there are now 8 species: *O. arida*, *O. biflora*, *O. argentinensis*, *O. sessilis* (syn. *Nothoscordum sessile* or *Allium sessilis*, but not to be confused with *Ipheion (=Tristagma) sessile*), *O. acaulis*, *O. correntina* and *O. totorensis*. They all have white flowers, mostly with a green or brown vein along the centre of each of the six perianth segments.

With regard to cultivation, I noted in *Growing Bulbs* (1997) that they 'behave as winter growers, dormant in summer and flowering at any time during the autumn-winter-early spring period; they have been grown in a just frost-free glasshouse in long pots of a sandy soil mix, dried off in summer.' Nothing has changed to alter this recommendation and I have not yet tried them outside in the open ground. I would not expect the rather soft fleshy leaves to survive the frost.

The references to Ravenna's work are in *Onira Botanical Leaflets* 3,14: 40 (1998), where the transfer of the names to *Oziroë* takes place (including a new species described), and in *Onira* 3,18: 68-69 (1999) where two more new species are added.

Thomas Gage's neglected genus

At a recent RHS Show in London, Rannveig Wallis came along with a bulb identification problem - this is usually serious, for if Bob and Rannveig have difficulty then it is likely not to be straightforward! This time it was a small white-flowered bulb from Lebanon. We agreed that it looked like a *Gagea*, but they have yellow flowers, except for the ex *Lloydia graeca*, now known as *Gagea graeca* - but this did not look like that either. It was, however, clearly something to do with *Gagea*. As always, a query sets off a chain of events, in this case leading to thoughts as to why this is such a neglected group of plants.

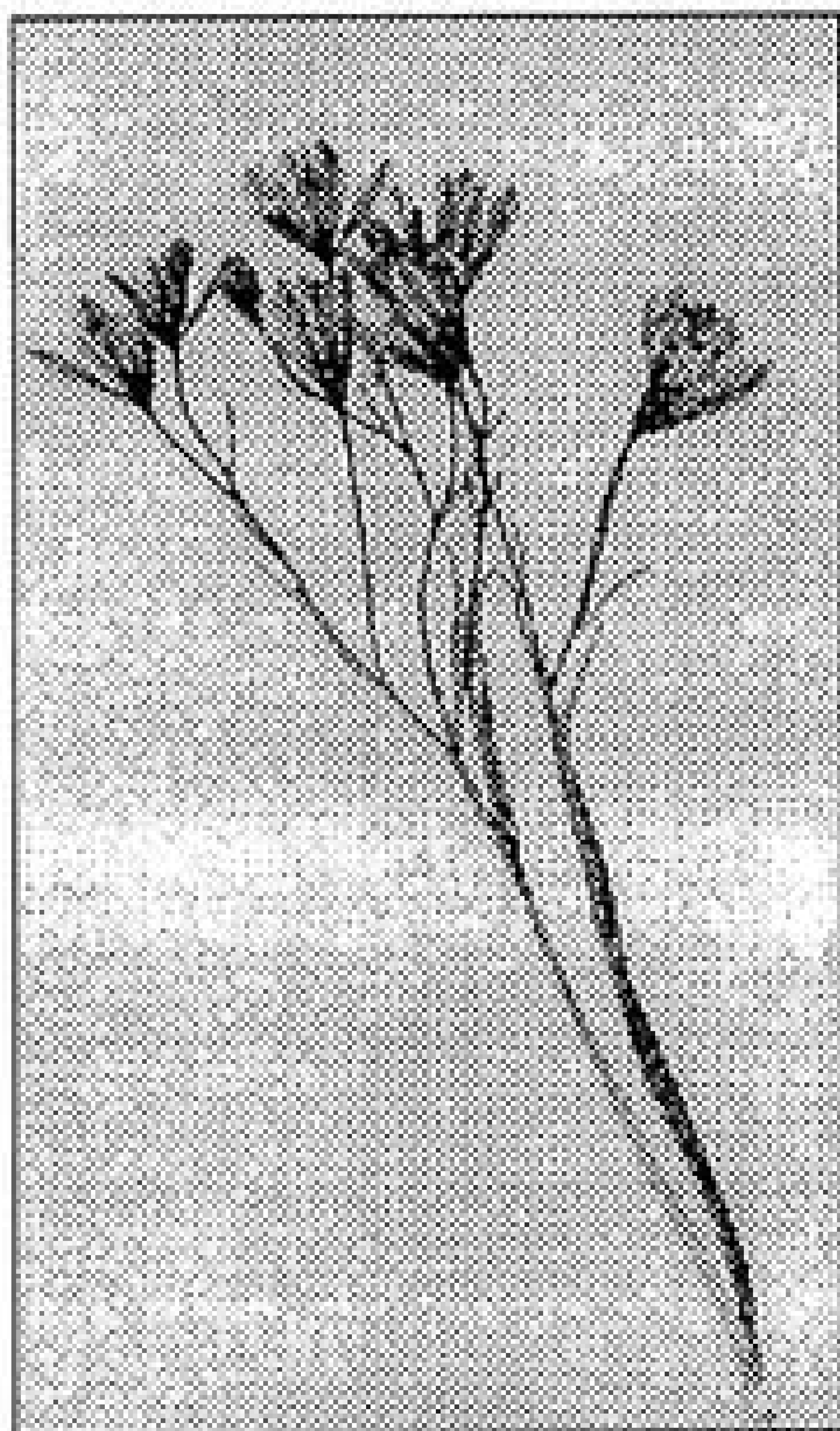
Members of the large genus *Gagea* (*Liliaceae*), which may have around 50 species, are a very common sight when travelling in the early spring throughout southern Europe, western and central Asia. They often occur in huge numbers and not infrequently several species growing together. Perhaps the fact that they are nearly all small with starry yellow flowers, and are extremely tricky to identify, has resulted in this being one of the most overlooked of all the small hardy bulbs. In the field, people often walk past them with a little more than a cursory glance and a bored 'not another *Gagea*'. But they are really quite attractive in a diminutive way, particularly when seen in drifts and colouring the damp alpine meadows. Sir Thomas Gage (1761-1820) has no cause to be miffed that the genus was named after him, although they are perhaps not as useful as the 'greengage' plum (Reine Claude) that was brought from France to England by Sir Thomas's grandfather.

Many of the species of *Gagea* would look really good if grown in quantity in a pot, on the rock garden or in a woodland setting, and there are species that would fit into any of these categories. Those who knew the rock garden at Wisley in the 1960s might recall a really striking drift of *G. lutea* beneath an old *Larix* tree. A few people grow one or two in private collections for interest's sake and *The Plant Finder* lists two nurseries selling *G. lutea* (John Shipton Bulbs, Y Felin, Henllan Amgoed, Whitland, Dyfed, Wales, SA34 0SL and Potterton & Martin, Moortown Rd, Nettleton, Caistor, Lincs., UK, LN7 6HX, who also offer *G. pratensis*). But they are never likely to be a great commercial success, so at best we must hope that a few bulb devotees might take them on and publicise them a bit.



Gagea villosa

As to the white-flowered one that Rannveig Wallis brought along, it did



not prove to be too much of a problem. A species with white flowers was described from the region, firstly as *Lloydia libanotica* in 1845, then as *Gagea rubroviridis* in 1859. Since the former epithet has priority, and it is now accepted that the plant is a species of *Gagea*, the correct name is *Gagea libanotica*.

As can be seen from the accompanying scan of a specimen of *G. libanotica* (left), it has several quite large funnel-shaped flowers, rather larger than those of *G. graeca*; they are about 15 mm long. The colour is essentially white but there are green or purplish veins and can be tipped with a purplish suffusion (presumably this green and purple tint is what gave rise to the epithet *rubroviridis*). The species is known from Israel, Lebanon and Syria.

It is difficult to give cultivation requirements for gageas as a whole since they vary so much in habitat; some (e.g. *G. lutea*) are woodlanders, some grow on dry slopes that get sun-baked in summer (e.g. *G. reticulata*), while others are alpine plants of snow-melt areas. Whatever their origin and habitat, the bulbs are very small and are easily killed by over-drying in summer, so a little water from time to time is necessary to keep them plump.

***Ranunculus asiaticus*, a fine and historic "bulb"**

It was, as far as I know, Ken Aslet, a former Superintendent of the rock garden department at Wisley garden, who coined the phrase 'honorary bulb' for those dicotyledons that have swollen rootstocks and behave as if they were bulbous monocots. Into this grouping went *Cyclamen*, *Eranthis*, some anemones, etc. *Ranunculus asiaticus* also fits into this category and Brian Halliwell has been looking into its history in cultivation. He writes:

"Because *Ranunculus asiaticus* has tiny root tubers, although a dicot, is usually considered with bulbs. Although immensely popular in earlier centuries, curiously it has never acquired a common name. Instead the generic name has been used with the addition of an adjective; as well as Asian ranunculus, they have been known as Turkish, Persian and even African ranunculus.

Ranunculus asiaticus occurs around the edge of the Mediterranean in Europe, Asia and Africa. It was probably introduced into England by returning crusaders but it did not become established. Ogier Ghislain de Busbeq, the Austrian ambassador to the Turkish court, is usually credited with its introduction - in the diplomatic bag along with the tulip, circa 1550. Tulips quickly became fashionable during the 17th century until they were ousted from their pinnacle by *Ranunculus asiaticus* in the 18th century. It has as great a diversity of form as the tulip with perhaps a more extensive colour range: from white through pinks to red, some so dark as to be almost black, and in shades of yellow varying from cream to orange. In addition to self colours there were bicolours with petals edged with, or spotted, marked or blotched with other colours. Less favoured were singles to doubles that were fringed or anemone-centred.

Seeds sown early in the year under protection produced a few flowers within 6 months, allowing sorting before the plants became dormant. Selected forms would be grown on for a year and, following dormancy, tubers could be separated as they restarted into growth. Many were selected: for example in the last quarter of the 18th century, John Maddock's nursery at Walworth, then outside London, was offering 800 cultivars.

The 17th century saw the foundation of 'Florists' Societies' where the gentry met to discuss favourite flowers and to exchange plants. During the year they held Floral Feasts where plants were exhibited in competition to be judged by head gardeners from local gentry estates; the prizes awarded were in the form of pieces of silver. During the 17th century, plants exhibited were: auricula, anemone, carnation and tulip. During the 18th century, added to these were: polyanthus, hyacinth, pinks and Asian ranunculus. John Maddock was to publish in 1792 *The Florists Directory* which provided cultural notes and explained the points for which judges should look when making their deliberations.

It had taken about 150 years for *R. asiaticus* to achieve fashion status, but its decline was much quicker. In 1810, some 30 years after John Maddock had listed 800 cultivars, only 400 were available and by the last decade of the century this number had shrunk to 60.

During the 20th century named cultivars disappeared, to be replaced by mixed seedlings. Although out of favour in Britain they were more widely grown in Australia and New Zealand where they were considered to be important 'bulbs' in spring bedding. Australasian breeders had produced strains that bred true to colour and form.

From total obscurity in Britain they have reappeared over the last 20 years, containerised for the house plant trade. If, instead of being discarded after flowering, they are put out into the garden, they will establish and continue to produce their spring flowers. I know of a garden in cold Halifax [for North American subscribers, the one in Yorkshire!] which has a border of Asian *Ranunculus* that have survived three winters and each year the floral display has been better and better."

A new Cretan Bellevalia

The white-flowered *Bellevalia brevipedicellata* was described by W.B.Turrill from western Crete in 1941 but in recent years the presence of a similar *Bellevalia* has been noted at the other end of the island in the region of Sitia. In their very useful checklist, N.J.Turland, L. Chilton & J.R.Press [*Flora of the Cretan Area*: 182 (1993)] clearly did not know of the eastern population, but in the *Flora of Crete Supplement*: 108 (1997) they did record it, although including it under *B. brevipedicellata* with the note that it 'may represent a new taxon'. It appears to have been overlooked because fruiting specimens had been mis-identified as *Muscari macrocarpum*. Greek botanists have now studied the populations in eastern Crete and have ascertained that they represent an undescribed species of *Bellevalia* and that *Muscari macrocarpum* probably does not occur on Crete at all. Zacharias Kypriotakis (School of Agricultural Technology, Iraklion) & Dimitrios Tzanoudakis (Patras University) have published their findings in *Botanica Helvetica* 109(1): 85-90 (1999), where the new species is described as *B. sitiaca*.

A table is provided to compare the two species, showing that *B. brevipedicellata* has 2-3 leaves up to 4 cm wide whereas in *B. sitiaca* they are more numerous (4-5) and only up to 1.5 cm wide. The former has a significant group of sterile flowers at the apex of the raceme while *B. sitiaca* has few or none, and the fruits of *B. brevipedicellata* are obovoid to ellipsoid, those of *B. sitiaca* being suborbicular (slightly broader than long). In addition to these features there is a genetic difference, *B. brevipedicellata* being a diploid ($2n = 8$) and *B. sitiaca* a tetraploid ($2n = 16$).

Bellevalia sitiaca grows in limestone rocks in a few localities including

the Phaneromeni promontory where it flowers in February or March. Its flower stem reaches to 12-20 cm in height with a cylindrical raceme of up to 40 whitish flowers, each about 1 cm long and carried on a pedicel only 1 mm long.

And a *Bellevalia* enquiry

The description of the new species of *Bellevalia* came at about the same time that we received an enquiry from Henning Christiansen in Portugal. Henning wished to know whether *Bellevalia brevipedicellata* from Crete differed in any way from *B. nivalis* from Cyprus - at a glance they are not dissimilar.

In fact when one begins to delve into it and look at a range of herbarium specimens there are some clear differences, especially in the leaves. The Cyprian plant has narrow (less than 1 cm) leaves that are very long-tapering at the apex whereas those of *B. brevipedicellata* narrow very abruptly to the tip. Also, the seed pods are much longer in *B. brevipedicellata*.

IBSA

For those who might be developing a liking for South African 'bulbs' and need to acquire some more to fuel their interest, the Indigenous Bulb Association of South Africa is for you. Apart from issuing a very informative and authoritative *Bulletin* which is full of interest there is an excellent seed list offering packets at only \$1 each. Being particularly 'taken' with *Romulea*, I looked through the list and found 16 species, some of them very choice; there are 32 *Lachenalia* species that should be enough to start anyone off, not to mention all the *Gladiolus*, *Moraea*, *Freesia*, *Sparaxis*.....lots of treasures, from *Albuca* and *Zantedeschia*. IBSA can be contacted at PO Box 12265, N 1 City 7463, Republic of South Africa. Tel: 2721 558 1690 (fax only between 21.00 and 0600 GMT).

Whilst on matters South African----a rediscovery

For some years the little member of the *Hypoxidaceae*, *Saniella verna* has been cultivated in a few specialist collections. It is from the Drakensberg mountains of Lesotho and neighbouring South Africa and, like *Rhodohypoxis*, is a summer grower, liking damp conditions during its growing season and a dryer resting period in winter. It has tufts of erect deep green leaves and small white, long-tubed flowers that have a bunch of yellow stamens protruding from the centre, rather more crocus-like than *Rhodohypoxis*.

In 1914 a plant belonging to the family *Hypoxidaceae*, from Hantam Mountain in the western Cape region was described as *Forbesia occidentalis* but, in a paper recently published, B.L.Burtt argues the case

for referring this to the genus *Saniella* as a second species, *S. occidentalis*. There is an excellent drawing by Auriol Batten accompanying the paper which is published in the *Edinburgh Journal of Botany* 57: 63-70 (2000). This illustration shows a very compact plant of only about 5 cm in height with several narrow leaves arching outwards, and starry white flowers about 2.5-3 cm in diameter. The flowering time is in spring; in the wild this is August-September which would translate to approximately February in the Northern Hemisphere. It appears that this would fit into a regime of winter-growing, summer-dormancy, but as far as we know it has not been tested in cultivation here in the north.

A new Colchicum species from Morocco

A paper published in the *Bulletin Mensuel de la Société Linnéenne de Lyon* 68: 251-278 (1999) by Alain Fridlender describes a new *Colchicum*, *C. fharii*, from the Middle Atlas in Morocco. In fact this follows on from other studies in the genus by the same author who has described *C. actupii* from Sardinia and *C. arenasii* from Corsica.

This is a long and detailed paper, so we cannot repeat it in depth here, but it is worth quoting from the summary: 'It is characterised by large flowers with tessellated tepals, leaves arranged on an aerial stem and fruits with acuminate carpels.' It is said to be related to *C. lusitanum* and a key is provided to distinguish several of the species in this group from the region, including Sardinia. There is a drawing of *C. fharii* showing the flowers to be distinctly tessellated, with perianth segments averaging in the range of 4-4.5 cm long; the anthers are yellow, this being used as one of the characters to separate it from the *C. bivonae* group. It was collected in fruit in June and flowered in cultivation in October. The species is known from one locality near Ksiba in the Middle Atlas at 1850-1950 m.

The two other species mentioned above, *C. actupii* and *C. arenasii*, are described in earlier papers in the same journal.

Secondhand books from Anthony Huxley's Library

Mike Park's catalogue no. 76 contains the latest 'release' from the late Anthony Huxley's collection, featuring authors from N-R. Although it is a complete miscellany of titles in the field of plants there is a fair amount of interest for bulb enthusiasts. Just a few of those noted are: George Rodionenko's *The Genus Iris*, a broken run of the *RHS Daffodil & Tulip Year Book*, a first edition of Martyn Rix's *The Bulb Book*, and his interesting *Growing Bulbs* which has a lot of valuable information in it not readily found elsewhere. There are some books based on Redouté's works, including *Les Liliacées*, and Alan Rees's informative *The Growth of Bulbs*. Although broader in scope, several of the Oleg Polunin 'field guide' books are included, some in a range of languages; most of these are now out of print.

Mike Park, 351 Sutton Common Road, Sutton, Surrey SM3 9HZ, UK. Tel: 020 8641 7796; Fax: 020 8641 3330.

Personalities in the Bulb World - 13. Max Leichtlin

Few bulb growers can have overlooked the name of Max Leichtlin, for his name occurs in botanical epithets over and over again. He was born in Karlsruhe in Germany on 20th October 1831 and died, after a very influential career in the world of plant introduction and study, in 1910. His wide interest in plants, not just bulbs, was a result of studying at Karlsruhe Botanic Garden and following this by employment as a gardener in various places in Europe including the highly regarded nursery of Van Houtte in Ghent. He also undertook several botanical journeys, including to South America. He is most famed for the private botanical garden that he founded in Baden-Baden in 1873, where he introduced and re-distributed very many bulbous plants, sometimes from his own expeditions into the Balkans and western Asia. Inevitably at that time, some of these turned out to be undescribed species that were either described by him or named after him by other botanists.



Max Leichtlin (1831-1910)

Examples of bulbous plants that commemorate Max Leichtlin are *Crocus leichtlinii*, *Iris leichtlinii*, *Tecophilaea cyanocrocus* var. *leichtlinii*, *Camassia leichtlinii* and *Calochortus leichtlinii*.

Cultivation notes: *Eucrosia*

There are three reasons for the inclusion of this particular note, the first being that a 90 cm inflorescence has just burst forth from a bulb (which is thought to be of a *Eucrosia*) on the windowsill of our kitchen and, since the buds are still minute, looks as if it is good for another decimetre or two; secondly, we have little experience of growing eucrosias (Amaryllidaceae) but have presumably been doing the right thing - so will pass this on for other tender bulb enthusiasts. Thirdly we are hoping for some comments back from those who grow them to perfection to the extent that they have to give bulbs away to keep the numbers down - only one of our bulbs is flowering, so we are not all that successful.

Eucrosia is a South American genus of seven species according to Alan Meerow who has monographed them ('A monograph of *Eucrosia*', published in *Systematic Botany* 12: 460-492, 1987); they all come from Ecuador and Peru which is where the bulb that we have originates from, although exactly which species remains to be seen when it flowers - it may even be a previously unknown one since Gwilym Lewis at Kew (who saw it in the wild) has shown us photos and it does not seem to fit those

described in Alan Meerow's account of the genus in *Flora of Ecuador* 1990).

With bulbs from the tropics I have always taken the view that they are not going to have 'fixed' cold and warm seasons to respond to so will react only to being dry or wet, and they need to be relatively warm all the time. This is the reason for the shelf over the radiator in the kitchen: it has been successful in the past with bulbs that sulk in the glasshouse. A further point is that it makes more sense to keep them dry in winter when the light intensity is poor and then water them in spring when (normally) there is more sun about. Amaryllids, especially tropical ones, do seem to prefer an open soil mix with plenty of air in it, so a proprietary brand of potting soil was used (one with a fair amount of bark chips) to which perlite was added, about 1/4 by volume. This drains very rapidly - the water goes straight through very quickly, so there is little chance of suffocation of the fleshy roots. It seems to be working, but, as mentioned above, if anyone has any advice, please let us know; hopefully, if all goes well and this *Eucrosia* flowers before it reaches the ceiling, we will include a photo in a future BN.

Don't write off the Bellevalias - some may surprise you

It has to be admitted that quite a lot of the species of *Bellevalia* are dowdy, with racemes of dirty white flowers that rapidly change to a putty colour or brown. Compared with most *Muscari*, which they somewhat resemble (and especially the *Leopoldia* group), they really don't seem to have much going for them. However, just a few are worthwhile and are recommended for adding interest to a hardy bulb collection in late spring.

The dusky dark blue *B. pycnantha* is well known, a common plant from damp meadows in Turkey and Iran and a very easy garden plant. Less so is the vivid paler blue *B. forniculata* which colours water meadows in eastern Anatolia, looking like a blue lake from a distance. This is not quite so straightforward in its cultivation requirements and has yet to prove itself as a 'good garden plant'; dramatic as it is, there is no point in having it if it is a struggle to get a decent spike of flowers. But there is a much easier alternative in the brilliant blue range, and that is the European *B. dubia* which



Bellevalia dubia

is one of the easiest of all to grow. We have it in a raised sunny bed of reasonably well-drained soil and there it thrives, and has increased into a good tight clump. It is in flower now, as I write, in mid April and is one of the more striking plants in the bulb bed. It is the buds and young flowers that are such a vibrant colour, up to the time they open out fully; soon after they have past anthesis (perhaps after they have been pollinated), they change colour and, as with most *bellevalias*, turn brown with paler stripes.

There are others of merit as well, for example *B. atrovioacea* from Afghanistan and the adjacent Central Asian republics to the north; this has deep indigo blue tubular flowers, well worth cultivating but difficult to obtain and probably best treated as a bulb frame plant, dried off in summer. The Iranian *B. tabriziana* (*Hyacinthus tabrizianus*) is rare in cultivation now, although at one time it was regularly in the bulb catalogues; it is more like *Muscari azureum* with short dense spikes of bright blue bell-shaped flowers. Then there is the little Greek species *B. hyacinthoides*, better known as *Strangweia spicata*, with more widely open blue bells which makes a good alpine house plant where it can be seen in closer detail.

So, thank you, Pierre de Belleval, your modest genus is giving us much pleasure.

An impressive treatise on Cyclamen - now in English

Our German friends are probably wondering what all the fuss is about: a book on *Cyclamen* that has been around since 1898, written by Dr Friedrich Hildebrand in German, and therefore easy enough to read. However, this extraordinary work has been largely overlooked or ignored by English-speaking (or rather non-German speaking) enthusiasts and botanists. Now it is available, thanks to Erna Frank and the Cyclamen Society who have translated and published an English-language version. There are probably two main reasons that it has been avoided, firstly it is quite rare in the original version anyway and secondly it is written in a very precise and detailed manner, often using obscure botanical phraseology and terms coined by Hildebrand for the purpose. So, it was not a straightforward matter to translate it - I doubt that a 'standard' translator could have achieved much success, but in Erna Frank the Cyclamen Society found the perfect combination, a person with an excellent command of both the English and her native German languages, and an understanding and love of *Cyclamen*. This is truly a remarkable piece of work by Hildebrand, one of the most detailed studies of a group of plants one can imagine, not only as specimens but as growing plants. I can thoroughly recommend it, not only for those who are keen on the genus *Cyclamen* but as a lesson in how to be thorough! Available from The Cyclamen Society, 5 Dower Avenue, Wallington, Surrey SM6 0RG, UK. £28.00.

Catalogues

Nigel Rowlands' Long Acre Plants does not set out to specialise in bulbs, (they have a tempting range of perennials) but there are quite a few monocots which will surely be of interest to bulb enthusiasts. Dipping into the 2000 Spring List I find the excellent *Corydalis elata*, a relative of *C. flexuosa* with just as much appeal, several *Dierama* species, five different *Polygonatum* species and the Solomon's Seal allies, *Disporopsis pernyi* and *Disporum maculatum*. It is good to see the unusual *Libertia caerulescens* which has blue flowers - a nice change from all the white ones - and several *Ophiopogon* species which have great merit as evergreen ground cover and are definitely 'catching on.' In fact we have a very compact, dense one here in Surrey which is becoming a bit too much of a good thing, but it flowers and berries rather well. *Roscoea* is becoming a popular genus as well, but to date the range has been fairly restricted. Long Acre are offering several including a white form of the hybrid *R. x beesiana* which sounds good. Other woodlanders to be found here are *Tricyrtis* in a good range of cultivars and a dozen species of *Trillium*, always popular. Long Acre Plants, South Marsh, Chariton Musgrave, Somerset, BA9 8EX. Tel/fax: 01963-32802.

The Tasmanian Woodbank Nursery of Ken and Lesley Gillanders is now in its 25th year - Congratulations from the BN team! The Silver Anniversary edition of the catalogue seems a lot thicker than usual and certainly has a large number of really good plants. Bulbs are not there in great numbers, but there are some interesting monocots not often seen in catalogues. The native *Astelia alpina*, for example, a small alpine species known as the Pineapple flower because of its tuft-like habit, the unusual blue South American *Libertia caerulescens* and two native species *L. peregrinans* (fascinating stiff, coppery leaves) and the dainty *L. pulchella*. The climate at the nursery seems suited to temperate South American plants, so it is not surprising to see *Philesia magellanica* (does it flower well?) and two less familiar relatives, *Luzuriaga polyphylla* and *L. radicans*, which have white bell-like flowers followed by orange berries. The *Tigridia* ally (sometimes included in *Tigridia*) *Rigidella orthantha* is well worth having, a Mexican Irid with brilliant red flowers - we used to grow it outside here in Surrey until a really cold winter finished it off, so it is near hardy. I also spotted *Saniella verna* from the Drakensberg, the plant mentioned on page 12 of this issue of BN. I have seen several *Iris unguicularis* in various shades of 'pink' under the name of 'Starker's Pink', but the one offered here is described as 'a lovely soft pink form', so maybe this really is it. Another native that is rarely seen here in the UK is *Herpolirion novae-zealandiae*, a blue-flowered alpine species. Plus many, many interesting dicots. Woodbank Nursery, 2040 Huon Road, Longley 7150, Tasmania, Australia. Tel/Fax: (03) 6239-6452.

Janis Rukšāns' amazing list of bulbs grown in Latvia is always - amazing! The new one for the autumn 2000 crop (orders are requested before August 1st) is packed with all sorts of interesting items. The *Allium* collection alone is extraordinary, consisting of 64 species and selections; I like the sound of *A. lipschitzii*, bright blue with violet veins on 40 cm stems - in fact I like the sound of quite a lot of them but the ones I choose always seem to be in the \$20-\$30 (each) bracket!

Corydalis has been a strong point with the nursery for some time and several have been put into the *Corydalis* trial at Wisley; the very early-flowering *C. angustifolia* 'Georgian White' has certainly been performing well and seems to be superior to the usual form both in appearance and sturdiness. There is a long list of *C. solida* forms with enticing cultivar names: 'First Kiss', 'Evening Dream', 'Blushing Girl', 'Apple Snow'.....! The gorgeous yellow *C. schanginii* subsp. *ainae* did extremely well in the Wisley trial but the Far Eastern *C. turczaninovii* (5 selections in the list), which should be a quite outstanding *Corydalis*, did not excite me; maybe it requires colder winters in order to perform well; the prices (\$15-\$50) indicate the esteem in which Janis holds this species, or maybe he doesn't want to part with them! The *Crocus* list is impressive too, choice species such as *C. michelsonii* and others with enticing names like *Crocus tauricus* 'Black Sea Foam' - *C. tauricus* is the Crimean version of *C. biflorus*. *Erythronium sibiricum* is a struggle to grow in Surrey but it is worth the effort; given a cold spot in the garden it does fairly well.

Fritillaries abound in the list, many of them well-known among the 'Frit crowd', but some are seldom seen here in Britain - the Caucasian *F. collina* for example, a *F. latifolia* ally with yellow, brown-checked flowers. I am not sure about *F. persica* 'Ivory Bells'; in my experience of the species in Iran most are pale straw coloured (?= ivory) rather than the deep plum of 'Adiyaman' - it would need to be a very good white to merit the outlay of \$100. There are many other treasures among the irises - Juno and other bulbous ones such as *I. winkleri* and *I. kolpakowskiana*, and a white *I. winogradowii* is promised for the future. Several of the junos are collected in their type localities, so should certainly be true to name (e.g. *I. albomarginata*, *I. capnoides*, *I. maracandica*, *I. parvula*, *I. rosenbachiana* and *I. zenaidae*). In our Surrey garden *Muscari pallens* is in flower at present and I find it one of the most enticing - but then, the BN team is going through a grape hyacinth phase! Similarly, we have *Tulipa vvedenskyi* in flower, bought from Janis a while ago, and what a splendid dwarf plant his form is compared with the huge ones that were going around some years ago under that name.

This catalogue should carry a health (of bank balance) warning!
Jānis Rukšāns, Bulb Nursery, Rozula, LV-4150 Cēsu distr. Latvia.
Tel/fax 371-4132260.

Every year we try to add a few *Narcissus* cultivars to the collection, although it doesn't increase very much in overall size since the *Narcissus* bulb flies see to that. So, Ron Scamp's list is eagerly awaited, especially if we have just browsed around the show benches of the Daffodil competition at the RHS Show in London. I always marvel at the skill of the plant breeders (and cultivators) in the perfection that they manage to achieve. The *N. cyclamineus* and *N. triandrus* hybrids are among our favourites and 'St. Day' in the latter group looks particularly enticing, with 2-4 perfectly formed small white, yellow-cupped blooms. Mmmm - £15 per bulb is an expensive meal for a bulb fly grub. There must be over 700 cultivars listed in this catalogue! R.A.Scamp, 14 Roscarrack Close, Falmouth, Cornwall, TR11 4PJ. Tel: 01326-317959.

Liz and Peter Moore's Tile Barn Nursery is noted for quality plants of an extraordinary range of *Cyclamen* species and their selections. What is not so well known is that the nursery carries small stocks of other interesting bulbs, available for customers who visit (but the *Cyclamen* can be sent by mail order). So, whilst browsing through the *Cyclamen* (which include among the host of treasures such items as *C. colchicum*, *C. coum* 'Kusnetzovii', *C. repandum peloponnesiacum albiflorum* and *C. repandum vividum*), keep an eye open for other 'bulbs' - such as *Crocus mathewii*, *Erythronium japonicum*, *Fritillaria latakensis*, *Galanthus* 'Lady Beatrix Stanley', *Ipheion* 'Charlotte Bishop', *Muscari* 'Baby's Breath', *Narcissus calcicola* and *Polyxena ensifolia*. Tile Barn Nursery, Standen Street, Iden Green, Benenden, Kent TN17 4LB. Tel: 01580-240221.

Bookends

A very welcome arrival in the BN office is Graham Duncan's *Grow Bulbs*, the latest booklet in the Kirstenbosch Gardening Series. Previous 'bulbous' titles are *Grow Agapanthus* and *Grow Clivias*. This is, as expected, a great little book of only 64 pages and it is amazing what has been packed into this deceptively small space. The subtitle is 'A guide to the species, cultivation and propagation of South African Bulbs'. The introduction takes us through the various plant families in which 'bulbous' plants, in the broadest sense, occur - some of these will be unfamiliar names following the breaking up of the old *Liliaceae* which, in its strict sense (i.e. *Lilium* & its relatives), does not occur naturally south of the Sahara. So, we find general notes on *Agapanthaceae*, *Alliaceae*, *Amaryllidaceae*, *Araceae*, *Asphodelaceae*, *Colchicaceae*, *Haemodoraceae*, *Hyacinthaceae*, *Hypoxidaceae*, *Iridaceae*, *Oxalidaceae* and *Tecophilaeaceae* with an example of each family in full colour. Following this there are two sections, 'Cultivation of winter-growing species' and 'Cultivation of summer-growing species', again each section illustrated with a range of bulbous plants specially chosen to make one's mouth water, some of

them in the wild, some clearly illustrating the cultivation skills of the staff at Kirstenbosch and of the author in particular (for example the bulging pot of *Gethyllis linearis* in full flower). These sections include lists of species suitable for container growing and deal with topics such as the growing medium, planting time, aspect and watering. Gardeners in cool northern temperate regions need not worry too much about the change of seasons since most of these plants continue to behave as winter or summer growers; where months are mentioned by name, forget these and think of seasons - a bulb which commences growth in early autumn (April) in South Africa will continue to do so in autumn (September) in the UK. With newly imported bulbs there is a tricky period brought about by the 6-month change which is why on the whole it is much better to start with seeds. Some species are, of course, evergreen (some *Agapanthus*, *Tulbaghia*, *Clivia*, *Cyrtanthus*, etc.) and these are dealt with separately.

The propagation chapter runs through the various techniques - seeds, offsets, bulbils and cormels, division of rootstocks and leaf cuttings; there are some convincing photos of just how successful this last method can be in the case of *Lachenalia*. The pest and disease section mentions some old foes, whichever hemisphere you belong to, and there are some useful tips on 'environmentally friendly' treatments. I am not quite sure whether the control of red spider mite rates as friendly or unfriendly: 'soak 20 cigarette stubs in 1 litre of water for 1 week, add 2.5 ml liquid soap and spray'; and slugs and snails can be deterred by applying tobacco dust in a circle around the base of the plant. Ducks are also recommended for getting rid of molluscs, and bantams serve a dual purpose of cleaning up caterpillars, beetles and small snails whilst fertilizing the garden at the same time. There is an extensive list of further reading, useful addresses of organisations such as the Botanical Society of South Africa and IBSA, and some sources of supply. The photographs (on every page) are all by the author and of excellent quality, and there are a few line drawings by Jeanette Loedolff. The price is R49.95, but it would be as well for those outside South Africa to enquire first about the postage charges. National Botanical Institute, Private Bag X7, Claremont 7735, South Africa. Tel: (021) 762-1166, Fax: (021) 797-6903.

The Bulb Newsletter is published quarterly and is obtainable from:
Brian Mathew, 90 Foley Road, Claygate, Esher, Surrey KT10 0NB, U.K.
Rates are as follows: [Airmail postage is included]
• UK: £12.50 per year
• Europe: Eurocheque or International Money Order for £15 per year
• USA and other countries: US \$30 year (or Int. Money Order for £15)
Cheques payable to B. Mathew please, not the Bulb Newsletter