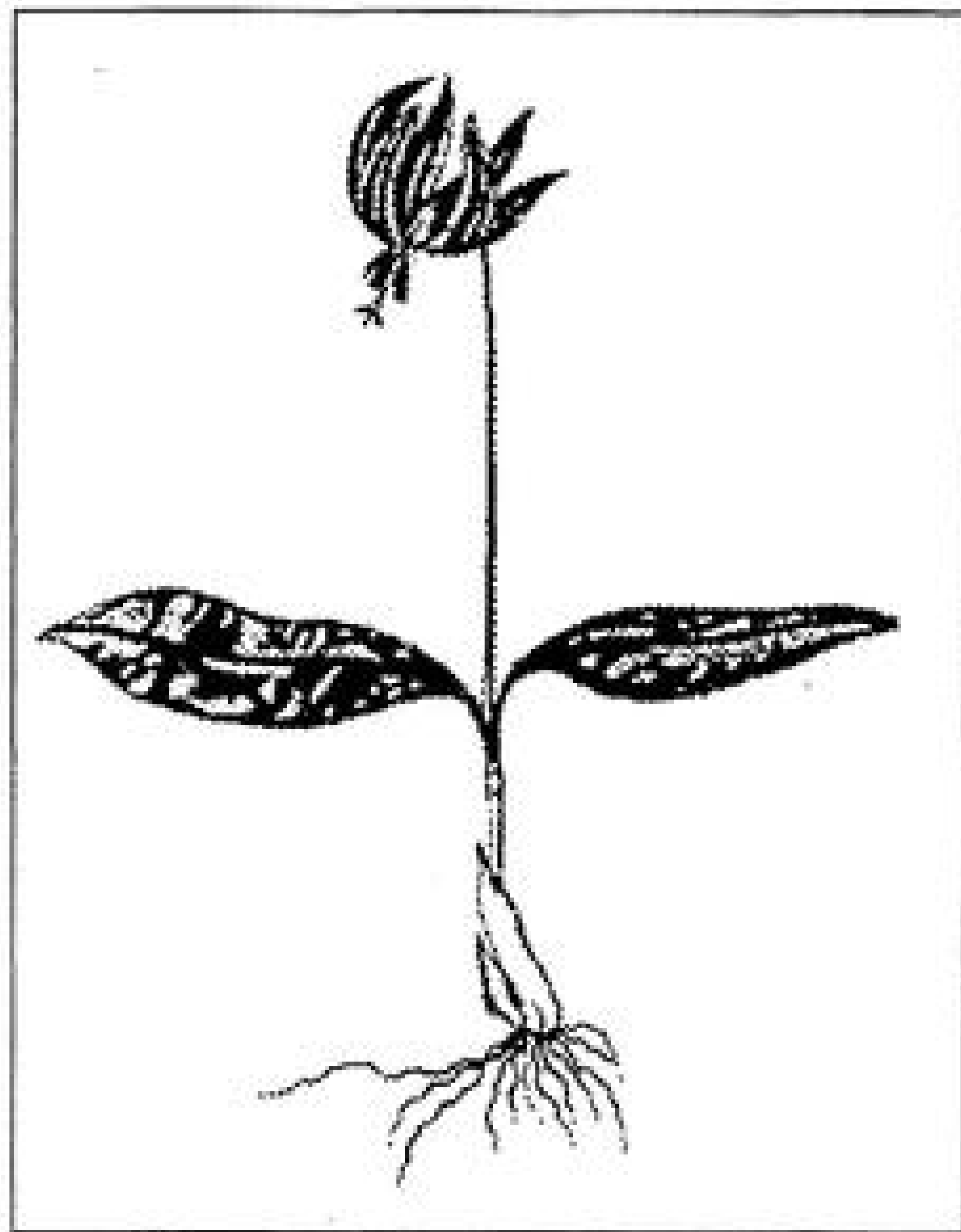


***THE BULB***  
***NEWSLETTER***



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## The Bulb Newsletter No. 16

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### ***Cost of Tulipa sprengeri: I don't understand!***

*Tulipa sprengeri* is, to me, one of the most desirable tulip species of all, and certainly the easiest and most persistent in the garden in a wide range of conditions, but it is hard to find in the catalogues and fairly expensive. We have a colony which has grown and seeded itself over the years from just a few at the beginning and this year there were 147 flowers out all at the same time, quite a show. As usual, they all produced fat seed pods without any encouragement and ripened at the beginning of August. A friend specialising in dried flower arrangements is always a willing recipient of the elegant seed pods after they have split open and, before passing them on, we counted the seeds which came out of one of the capsules. There were 245, so this means that our crop of seeds amounted to some 36,000! Even with a poor germination and survival rate this would be enough to retire on (well, it would help!), given the current catalogue price of £2.70 to £3.75. So why is it so unusual and expensive?

### ***Arum creticum***

Whilst on the subject of seeds, I have grown *Arum creticum* for about 30 years, having bought it from W.E.Th.Ingwensen in the early 1960s; this was the really good yellow clone with a slightly sweet scent. It has done really well and has increased over the years into a good clump in spite of being dug up whenever we moved house, and tubers have been given away from time to time. It has been in its present position without disturbance for some 10 years. Not once in those 30 years has it produced seeds, until this year; for some unaccountable reason every inflorescence produced a great fat spike of red fruits, which were carried up on a stout stem to about 60 cm before it bent over to touch the ground. Now why should this be, I wonder? I know that aroids can behave in a bizarre way, like changing sex as they get older (in some *Arisaema* spp.), but this is a well-established clump, flowering freely every year. There is so much we do not know about plants- - - - .

## ***Non--flowering Lycoris***

Bruce Beattie from Devonport, Tasmania, has raised the thorny old problem of how to get *Lycoris* - in this case *L. aurea* - to flower. He has tried growing them in a glasshouse during winter to get a fine crop of foliage, then drying off for the summer, but still no success. He is not alone, of course, and it seems that there is no definitive answer; if there is, please write in and let us know!

It is worth considering the climate of the places where they do grow and flower well; we have heard of success in, for example, in the some parts of the southern/eastern United States, North Island New Zealand and, of course in their native China, Korea and Japan; they are naturally fairly low-altitude plants. The most noticeable point is that the summers in these areas are warm to hot but not markedly dry, at least as far as humidity is concerned; the winters are relatively cool and dry. The implication is that the summer 'rest' period should be warm but not be too dry and it might be worth trying a regular spraying of the leafless bulbs during the summer dormancy. Growth is stimulated in autumn by watering, and watering is continued through winter and spring until the foliage dies back, but in winter the temperature need not be very high, frost-free but little more than this is necessary; once-a-month feeds of a potash-rich fertiliser are likely to encourage flowering, even sulphate of potash itself. Some of the species occur in limestone regions, so a soil mix containing crushed limestone is certainly worth a try. Ours are grown in a very sandy mix (sharp sand) with a little loam and no humus; lime is added in the form of crushed dolomite limestone but there is no special reason for this - ordinary horticultural lime or chalk may be just as effective.

They appear to thrive best when planted directly into the ground rather than in pots; if in pots these need to be long to allow for the vigorous roots. However, the bulbs, whether planted or in pots, should not be deep - the neck should reach soil level. Some bulbs of *L. radiata* which I planted too deeply (about 10 cm/4") did the reverse of producing contractile roots - they moved up towards the surface by progressively re-forming a new bulb above the old one!

As far as I know, the summer temperatures at which buds are initiated within the dormant bulbs have not been worked out for *Lycoris* in the same way that they have for the major crop bulbs such as daffodils and hyacinths. My guess is that it a fairly high temperature is required (at least by our standards here in the U.K.), perhaps something like 25°C (bulb/soil temp., not air temp.)

It would probably be worth trying smoke treatment of the dormant bulbs, although *Lycoris* are not naturally plants of areas which are

subjected to bush fires. But then neither are Dutch irises and daffodils and they respond to smoke!

In our experience they are very attractive to narcissus bulb flies and are very susceptible to attack since the bulbs are planted near the surface. In the absence of really effective 'soil pest' chemicals at present, a physical barrier such as lightweight fleece material placed over the bulbs through the summer might be the best option in areas where they are a serious problem.

So there are a few ideas, but if anyone has more tips, even better if they are concrete facts, please write in. These are marvellous autumn-flowering bulbs but are very rarely seen here in the UK; if a reliable system of cultivation could be worked out they might become very popular.

### **Chinese Liliaceae**

For those with a better understanding of Chinese than your editor (and let's face up to it, there can be no-one worse!), there is a paper by Wu Zheng Yi, Li Heng and Yang Chong-Ren on the Cytogeography and Phylogeny of Liliaceae, published in *Acta Botanica Yunnanica Supplement* 6: 101-112 (1994). This Supplement is devoted to a study of the 'Flora of Dulongjiang Seed Plants', this particular paper concerning the Liliaceae in its narrow sense comprising *Lilium*, *Nomocharis*, *Fritillaria*, *Cardiocrinum* and *Notholirion*. There is a table comparing the chromosomes of over 20 species within these five genera showing that, although they all have a count of  $2n=24$ , there is quite a lot of variation in the shapes of the chromosomes (the karyotype). There is an English abstract which indicates that the authors consider *Nomocharis*, *Notholirion* and *Cardiocrinum* to be 'new' genera in evolutionary terms, based on an analysis of their chromosome types. There are some estimates as to when these genera arose, and where and how this came about: '*Cardiocrinum* originated in the late Miocene Epoch, *Nomocharis* originated in the Pliocene Epoch or later and *Notholirion* originated after the Pleistocene Epoch; [these] are monocotyledons [which] appeared in the late Cenozoic Era; *Cardiocrinum* originated in the north range of the Hengduanshan Mountains and diversified in mid China; *Notholirion* originated in northern Hengduanshan Mountains between 25° and 30° North latitude; *Nomocharis* originated in the sub-alpine and alpine belts of Hengduanshan Mountains and took there as its diversity centre'. The abstract continues [with a few adjustments to the English, hopefully interpreted correctly]: '*Lilium* is the most primitive genus of Liliaceae. The primitive species of *Fritillaria* [have possibly] originated from *Lilium* species with a karyotype  $2n=24=4m+10st+10t$ , while *Cardiocrinum* [has] evolved from related species of *Lilium* in Hengduanshan Mountains [such as] *L.souliei*

( $2n=24=4m+6st+14t$ ). The karyotype of [the related] *Lilium* species which *Cardiocrinum* [took] [has remained] unchanged. The original species of *Notholirion* [i.e. *N.bulbiliferum*] [arose by further diversification from the] *Cardiocrinum* population in the area of Hengduanshan Mountains. And the advanced alpine species of *Fritillaria* in Hengduanshan Mountains [such] as *F. cirrhosa* ( $2n=24=2m+2sm+8st+12t$ ) breeds [?gave rise to] the first species of *Nomocharis*. *Notholirion* is the most advanced and youngest genus of *Lilieae* [on the basis] of cytology.'

At a much more basic level, the BN Editor is rather envious of the fact that someone clearly had enough *Fritillaria yuminensis*, *Lilium souliei* and *Nomocharis basilissa* to chop off roots for chromosome counts!

### Another Family Split

It is not often we get a chance to report a new family of bulbs, but recently Mike Fay and Mark Chase of the Royal Botanic Gardens, Kew, published a paper on the *Themidaceae* which will be new to most enthusiasts, although it is in fact a name dating from R.A.Salisbury (1761-1829). Their paper is entitled 'Resurrection of *Themidaceae* for the *Brodiaea* alliance' and presents the case for removing the sizeable group of American genera related to *Brodiaea* from the onion family, *Alliaceae*, into their own family. The *Themidaceae* includes the well-known 'horticultural' genera *Brodiaea*, *Triteleia*, *Dichelostemma*, *Bloomeria*, *Muilla*, *Dandya*, *Milla* and *Bessera* (see BN6:13) as well as the more obscure *Androstephium* (see BN13:19), *Behria* (see BN13:6) & *Triteliopsis* (see BN3:3). In the same paper, *Agapanthus* is removed from the *Alliaceae* and placed in *Amaryllidaceae*, in a new subfamily *Agapanthoideae*. The paper is published in *Taxon* 45:441-451(1996).

### A New Asiatic Trillium

A new relative of *Trillium camschatcense* and *T. tschonoskii* has been described from Hokkaido, Japan by Ichiro Fukuda, John Freeman and Masakazu Itou. Like those, it has white flowers raised on a short pedicel above three large, broad plain green leaves. It is named *T. channellii* after Robert B. Channell, Emeritus Professor of Botany at Vanderbilt University, Nashville, Tennessee. The citation reads: 'His interest in *Trillium* and support of research on taxonomy, cytogenetics, chemistry, and ecology of this genus during the early 1960s account (directly or indirectly) for much new information published about these plants since that time-----''

The details of the new species are as follows: Height 30-50 cm. Leaves 9-12 cm long, 7-14 cm wide, broadly elliptic and shortly acuminate at the

apex. Pedicel 1.8-2.2 cm long, erect. Flowers held facing outwards or slightly upwards; sepals green, 19-44 mm long, 9-18 mm wide; petals white, 22-44 mm long, 11-27 mm wide, ovate. The authors provide a table showing the finer details of *T. channellii* compared with those of *T. camschatcense* and *T. tschonoskii*. The most obvious features seem to be the length to width ratios of the leaves and of the petals: *T. channellii* has relatively broader leaves and petals than the other two species. There are also differences in the ratio of stamen length to pistil length; *T. camschatcense* has long stamens exceeding the pistil, *T. tschonoskii* has short stamens, shorter than the pistil, while in *T. channellii* the stamens and pistil are more or less equal. It is noted that both *T. channellii* and *T. camschatcense* have purple markings near the top of the ovary whereas these are lacking in *T. tschonoskii*. The intermediate between *T. tschonoskii* and *T. camschatcense*, known as *T. x hagrae*, is also included in the table. There is chromosome data showing that *T. camschatcense* is a diploid ( $2n=10$ ) whereas *T. tschonoskii* and *T. channellii* are tetraploids ( $2n=20$ ); *T. hagrae* may be triploid (15) or hexaploid (30)

In addition to describing the new species, the authors present the case for accepting *T. camschatcense* Ker-Gawler as the correct name for the only diploid trillium from Asia; frequent mis-spellings are *T. camtschaticum* and *T. kamtschaticum*.

The full paper can be found in *Novon* 6: 164-171 (1996).

### **Brian Mulligan**

We do not normally publish obituaries - fortunately none of our close bulb friends have died since we began the Newsletter - but I would like to mention Brian Mulligan who died earlier this year at the age of 88. Although not a bulb man - he was primarily a tree and shrub expert - Brian will be remembered by us every spring when the lovely little *Narcissus* 'Picarillo' is in flower. This was raised whilst Brian was still in England; he was born in Northern Ireland but trained in horticulture at Wisley in the late 1920s and worked there until 1946 when he became Director of the then University of Washington Arboretum. 'Picarillo' went with them and is to be seen in some of the specialist gardens in the area, but he also left some on this side of the Atlantic and it is around in a few specialist collections; it gained an R.H.S. Award of Merit on 30 March 1982 (see next item).

I had the pleasure of visiting Brian and Margaret at their home and 2-acre garden in Kirkland last year, just at the time when *Cyclamen coum* was in flower, an incredible sight with thousands of the intense carmine flowers carpeting the ground around some shrubs and conifers - apparently people would crawl past in their cars just to have a look at the spectacle

during the flowering season. A few days later, in Betty Lowry's fascinating garden, I saw a nice clump of 'Picarillo' in flower. So, I have some warm memories of Brian and Margaret from that visit, as well as of many other bulb friends.

### ***Narcissus* 'Picarillo'**

This delightful dwarf *Narcissus* hybrid was raised in about 1940 by Brian Mulligan whilst working at Wisley; it is a cross between *N. minor* and *N. watieri*. The pollen parent was *N. minor*, from bulbs given to him by Mr Walter Butt (who is commemorated in *Iris unguicularis* 'Walter Butt') of Chalford, Gloucestershire, an enthusiastic collector of, among other things, *Galanthus* and *Narcissus*. The hybrid first flowered in 1944 and bulbs were subsequently passed to Wisley and to Mrs Gwendolyn Anley, another of the great growers of the period. Mrs Anley in turn gave bulbs to Alec Gray, the raiser of many dwarf *Narcissus* hybrids and author of *Miniature Daffodils* (1955) and it was he who named and registered it as 'Picarillo'.

'Picarillo' is 10-15 cm in height when in flower, with narrow grey-green leaves and wholly pale yellow flowers which have a short trumpet, flared out widely and crenate at the mouth; the rather pointed perianth segments stand out at right angles to the trumpet. It appears to be quite uncommon in cultivation and is not listed in the current U.K. *Plant Finder*.

### ***Haylockia***

A flurry of flowers on *Haylockia pusilla* (Amaryllidaceae) a short while ago prompted me to visit the Kew Library to attempt to find out who Haylock was, since this is not a familiar name in botanical or horticultural circles as far as I am concerned. The answer was easier to find than I was expecting, for all was explained in the original place of publication. The famous William Herbert (see BN 14:9) had been active once more, this time describing the genus *Haylockia* as well as the species *pusilla*. In the *Botanical Register* of 1830 he provided a description and colour painting of *H. pusilla*, and a footnote to the article gives the following information:

'Mr Herbert informs us [i.e. the editorial staff] that he has named this genus in compliment to Mr Matthew Haylock, who has the care of the collection of plants at Spofforth [Herbert's garden]; and both there, and previously at Mitcham, in the course of the last twenty-two years, has brought no small number of plants, especially of this natural order [Amaryllids] to blossom for the first time in this country.'

Some may be asking: What is a *Haylockia*? Think of a small, stemless, leafless *Zephyranthes* and you have a fairly clear image; in fact, think of a *Crocus* or *Colchicum* and you are also more or less there, although unlike the other two *Haylockia* has six stamens and an inferior ovary showing that it is in the Amaryllidaceae. In outward appearance there is very little difference from *Zephyranthes*, apart from the stemless-ness of *Haylockia*, and some botanists have sunk the latter into *Zephyranthes*, although it is significant that they have continued to recognise the group of species which constitute *Haylockia* as a subgenus within *Zephyranthes*, so they are in effect saying that it is still recognisable as a group. Others have moved only some of the species into *Zephyranthes*, so the position is far from satisfactory - but let us be honest, the classification of plants is seldom satisfactory, they vary too much for that; if one sets out to, it is very easy to find fault with every classification that has been published, but where would we be without classification - in a total mess is the answer! But to return to *Haylockia*, it seems best to me to retain it as a genus until some 'genetic fingerprinting' has been carried out on all the species, and on the species of related genera, before moving them about from one genus to another. So, I will retain Mr Haylock's memorial for the moment and give a resumé of this intriguing little genus.

The names which have been used in *Haylockia* are as follows:

*H. andina* R.Fries (1905). Collected originally in the northern Argentina, Jujuy Province, but appears to be more widespread in the Andes, possibly in both Bolivia and Peru, at altitudes of 3800-4500 metres. Various descriptions as white with pink on the outside, white with a greyish-blue exterior, white with pale mauve outside and pale violet with purple and grey reverse. It is also said to be sweetly scented. Flowering in the wild is early spring, the flowers being produced before the leaves.

*H. americana* (Hoffmansegg)Herter (1956). This requires looking into in more detail since it has nomenclatural implications; it was first described as *Sternbergia americana*, based on a specimen said to have been collected in Brazil by Sellow. Herter and Traub both transferred the species to *Haylockia*, while Ravenna has transferred it to *Zephyranthes*, since he does not recognise *Haylockia* as a genus. There is the possibility that this is the same as *H. pusilla* from Uruguay, the original *Haylockia* described by Herbert when he named the genus in 1830. Unfortunately, it means that if the two are one and the same, *H. americana* is the oldest name and therefore takes precedence over *H. pusilla*.

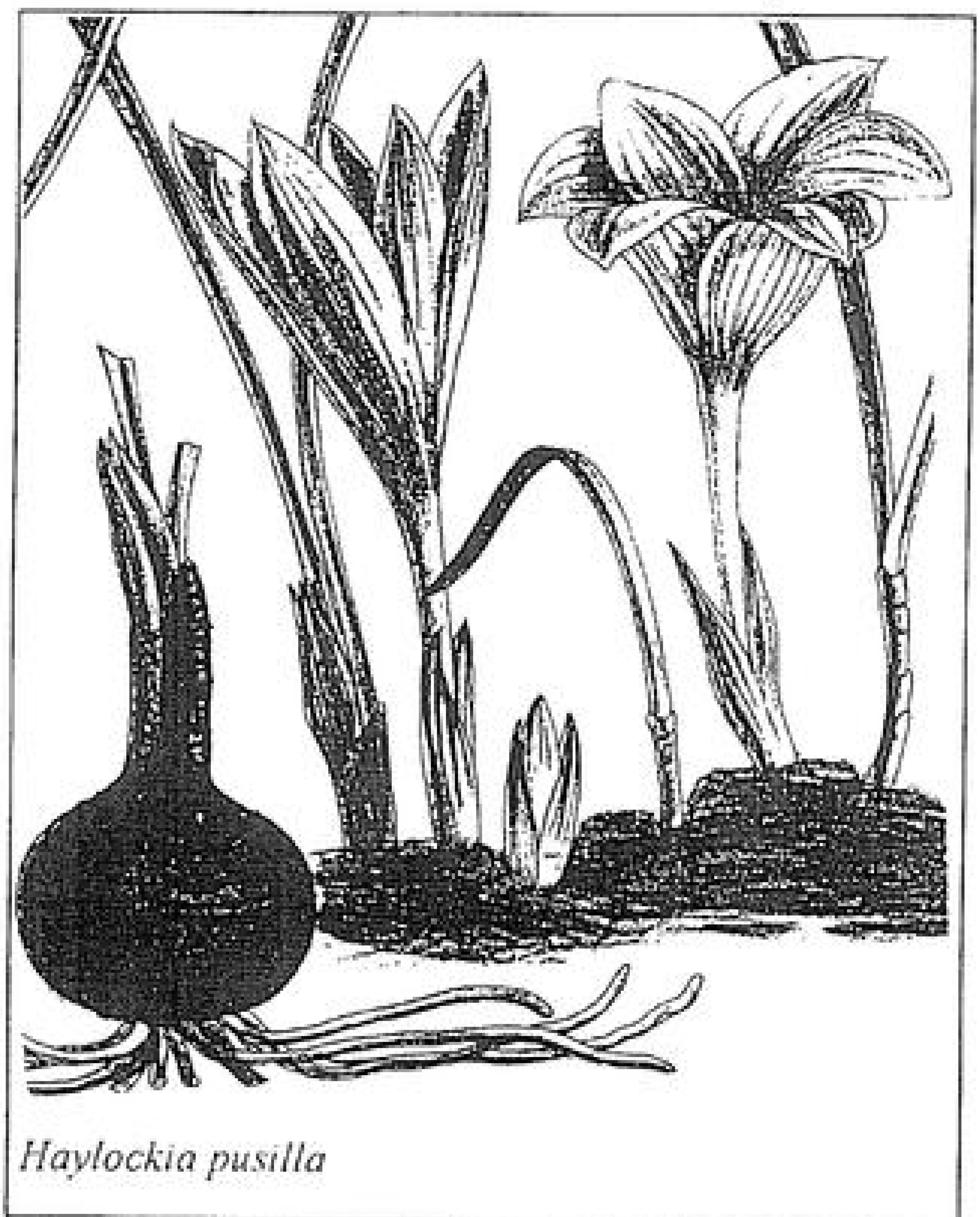


*H. briquetii* (Macbride)Hume (1938). Described as a *Zephyranthes* by Macbride in 1931, this was subsequently moved to *Haylockia* by Hume. It was collected by Weberbauer in southern Peru where it was in flower in February (late summer/early autumn). According to the description it is a dwarf plant with 2-3 leaves only 1 mm wide, and white flowers, violet-spotted on the outside; these have a tube 5 cm long and segments 2 cm long. Weberbauer observed that both leaves and flowers were prostrate, a curious feature in the case of flowers, one might think, but the miniature, scarlet-flowered amaryllid, *Crocopsis fulgens* (also from the Peruvian Andes) does this;the flower turns at right angles as it emerges from the ground and lies flat on the soil. *Stenomesson humile* is also very similar to this and does, in fact, raise another problem which needs investigation in the wild: to determine whether this and *Crocopsis* are the same thing, described twice under different names.

*H. canterae* André. This is a name written on herbarium specimens collected by Dr Cantera in Uruguay; it appears not to have been published formally and it also looks as if the specimens represent *H.pusilla*.

*H. chihuanhuaya* Cardenas (1973). Described from southern Bolivia. It has funnel-shaped orange flowers about 5.5 cm long, produced before the leaves in spring or early summer.

*H.cochabambensis* Cardenas (1973). Central Bolivia. Said to have lilac flowers 7.5 cm long with a tube 3.5 cm long and segments 4 cm long, produced with the leaves; the latter are 2-3 mm wide and 10-20 cm long.



*Haylockia pusilla*

*H. parvula* (Killip) Hume (1938). Described originally described by Killip in 1926 as a *Zephyranthes*, based on a collection by Herrera at Cuzco, Peru; almost certainly a synonym of *H. andina*.

*H. pseudocolchicum* (Kraenzlin)Hume (1938). This was described in 1914 by Kraenzlin as a *Zephyranthes*, from a specimen collected by Herzog in Bolivia (Cerro de Onero). The description indicates a large orange flower, with a tube 8-9 cm long and segments 3 cm long; it was placed in *Zephyranthes* section *Pyrolirion* (= genus *Pyrolirion*) and subsequently transferred to *Haylockia*, but it probably does belong in *Pyrolirion*.

*H. pseudocrocus* Solms-Laubach (1907). Described from Bolivia, from the cordillera south-east of Sucre (Chuquisaca), flowering in November (i.e. spring) and having white flowers, suffused violet on the outside, so the initial impression must be of a plant very similar to *H. andina*.

*H. pusilla* Herbert (1830). This was the first *Haylockia* to be described, although the epithet *americana* may take precedence (see above). It is from Uruguay and is summer/autumn flowering, before the leaves appear. The flowers are very crocus-like, about 5-7 cm long, white or pale sulphur-yellow with a greyish-purple stippled exterior. Herter provided names for the two colour variants: var. *aurea* and var. *cremea*. The bulbs which flowered here a few weeks ago (mid-late summer) were grown from seed and turned out to be a mixture of both colour forms.

**Cultivation of *Haylockia*.** The method of cultivation will depend upon the species; *H. pusilla* is certainly a 'winter-grower' and can be treated in a similar way to the Mediterranean and South-west Cape bulbs. I grow it in a frost-free glasshouse in a pot of a sandy-loam soil mix, dried off in summer; the flowers appear in late summer after a light watering and the leaves follow later on in autumn, lasting through winter until late spring.

The others, which are mainly from the Andes of Bolivia, Peru and northern Argentina, I would expect to behave as summer-growers, dormant in winter and flowering in spring or summer. Of these, I have tried only *H. andina* (and have now lost it) and that definitely made its growth during the summer.

## Stamps

Thank you, Wayne Roderick, for the 35 cent Snowdrop from the United States. A difficult one to identify (aren't they all!); the flowers have only one green blotch on each inner perianth segment and the leaves are green, suggesting *G. latifolius*.

## Personalities in the Bulb World - 5

Edward Augustus Bowles (1865-1954) is one of the best-known names in British horticulture. Although bulb enthusiasts will associate him with the genera *Crocus*, *Colchicum* and *Narcissus* through his books *A Handbook of Crocus and Colchicum* (1924, revised 1952) and *A Handbook of Narcissus* (1934), he had many other interests, especially *Galanthus* and *Cyclamen*, and his books *My Garden in Spring* (1914), *My Garden in Summer* (1914) and *My Garden in Autumn and Winter* (1915) give an indication of his very wide knowledge of garden plants. Bowles was born at the house which is still very much associated with his name, Myddelton House in Enfield. He took a degree in theology at Jesus College, Cambridge in 1887 but was never ordained, although he did remain very active in his local parish throughout his life.

Bowles' book about *Crocus* has been - and still is - a bible for anyone with an interest in the genus, for it is eminently readable, written for the gardener but packed with valuable observations. Bowles' detailed knowledge of the genus was acknowledged by Reginald Farrer, who referred to him as 'Crocorum Omnium Rex Imperator'. He raised many seedlings and selected those he considered to be superior, for example *C. korolkowii* 'Dytiscus' and a whole series of *C. chrysanthus* cultivars named after birds: 'Yellow Hammer', 'Golden Plover', 'Snow Bunting', 'Golden Pheasant', 'Bulfinch', and 'Siskin'. 'E.A.Bowles', one of the most famous of all, was raised by Hoog of van Tubergen and named in his honour. One



Edward Augustus Bowles (1865-1954)

of the plants raised and described by him as *C. jessoppiae* is a splendid white spring crocus but of unknown origin; it is assumed to be a hybrid but the parents are not recorded [it is probably *C. reticulatus* x *C. pestalozzae* or a *C. biflorus* form]. The superb *C. niveus* was described by

him and he regarded it as 'far and away the most beautiful of all white-flowered autumnal species'.

In the genus *Colchicum*, *C. bowlesianum* was named by B.L.Burtt in recognition of Bowles' valuable contribution to the knowledge of the genus. In *Narcissus*, a few people are growing an excellent little early trumpet daffodil known as 'Bowles' Early Sulphur', although as far as I know he did not name it that.

It is clear from his writings that Bowles was much more than a gardener: he had an enquiring mind which led him into other spheres of the plant world. One of his botanical contacts was Agnes Arber, a famous plant anatomist, and they corresponded on the subject of the origin of the corona in *Narcissus*; Bowles supplied living material for her studies of unusual species such as *N. broussonetii*, *N. viridiflorus*, *N. serotinus* and *N. (Tapeinanthus) humilis*. In a letter dated 20 November 1938 she thanked Bowles for flowers of *N. broussonetii*: 'I am delighted to have the opportunity of examining it... As you say, it is difficult to trace the exact relation of the rim to the stamens, but I hope that [anatomical] sections will clear this up It is most interesting to see this example of the detachment of the rim from the stamens in alternate segments - it is indeed a telling piece of evidence of the correctness of your view that the corona is not a dependent of the stamens.' Another friend, Major Albert Pam (after whom the amaryllid *Pamianthe* is named) also referred to this topic in a letter to 'My dear Bowlie' on 24 January 1940; Pam sent Bowles some *Narcissus* papers (1859) by the botanist J. Gay, remarking that: 'I know that you have been working on the corona and this paper may by chance have escaped your notice.' Bowles did dwell on this topic at some length in his *Handbook* of 1934, but it is clear that, several years later, he was still gathering information.

Bowles was also a very competent artist and some of his water-colours are reproduced in his books; so good that he received an RHS gold Grenfell Medal for an exhibit of paintings. He served on the Council of the Royal Horticultural Society from 1908 to 1926 and was a member of the Scientific Committee and Chairman of the *Narcissus* and Tulip Committee; in 1926 he was elected the first Vice-President of the Society. In recognition of his valuable contributions he was awarded the RHS Victoria Medal of Honour in 1916, the Veitch Memorial (Gold) Medal in 1923 and the Peter Barr Memorial Cup (1934) for work on *Narcissus*.

The overall impression of E.A.Bowles is of a person of many talents; his books show that he was an excellent communicator with the ability to impart a great deal of knowledge in a form palatable to all levels of interest. He was working on monographs of *Galanthus* and *Anemone* and it is our loss that he did not complete these.

## ***Colchicum pannonicum***

Last year at an RHS Show in London, Christine Skelmersdale of Broadleigh Gardens \* was exhibiting an attractive *Colchicum* labelled *C. pannonicum*; it pays to show interest - I was generously given a corm of this and it is now flowering in our garden, a leafless autumnal species with medium-sized bright purple flowers with a long slender tube, also stained purple; it is very similar in size and stature to *C. autumnale*, and it has much the same overall appearance, but the colour is much richer than is normal for *C. autumnale*. On a recent and most enjoyable visit to the National *Colchicum* Collection at Felbrigg in Norfolk there were large patches of a very similar plant also labelled *C. pannonicum*, so similar that they could be part of the same clone. Another patch, labelled 'Nancy Lindsay', looked much the same, but that is a matter for the Committee members who are assessing this particular collection to decide upon.

Apart from its undoubted garden value I thought it would be of interest to check what the original description said about *C. pannonicum* and, for that matter, where is Pannonia? The latter is easy, and I should have known - it is an ancient name for a part of what is now Hungary, although at least one of the original localities cited for *C. pannonicum* is now in Romania. The description by Grisebach and Schenk in *Wieg. Archiv.* 18, 1:359 (1852), as expected, indicates a plant very like *C. autumnale*, and that is the species with which the authors compare it; the points of distinction are given as: perianth segments alternately long and short, wider leaves and the stigmas more strongly hooked; the flowers are described as pink with oblong or oblong-spathulate, obtuse segments 3.75 cm long and a tube 4-6 times longer.

The localities given for the species were (1) Banat, 'auf dem Berge Serbana bei den Herculesbäden' and (2) Siebenbürgen, 'in den Wiesensthälern am Fusse des Zakkelsbergs bei Gr. Scheuern unweit Hermannstadt' [the latter is now Sibiu, just north of the Transylvanian Alps in Romania]. It would be interesting to find these sites just to check on what is growing there, and the range of variation to see if anything similar to the cultivated "pannonicum" is there.

It is not surprising that Chris Brickell, in his account of *Colchicum* for *Flora Europaea*, decided to 'sink' the species into *C. autumnale*.

So, unless new field studies of colchicums in this area indicate otherwise, the situation is that the excellent plant which is being distributed as *C. pannonicum* appears to be a very nice colour variant of the very widespread *C. autumnale*.

\* Broadleigh Gardens, Bishops Hull, Taunton, Somerset TA4 1AE.

## ***Bomarea in Argentina***

A.M.Sanso and C.C.Xifreda have published\* a revision of *Bomarea* (Alstroemeriaceae) in Argentina. Four species are recognised as occurring there: the very widespread Central and South American *B. edulis*, the endemic *B. macrocephala*, and *B. boliviensis* and *B. stans* which occur in both Argentinian and Bolivia. There is a lengthy discussion about the genus, drawings and full descriptions of the species, lists of specimens seen with their localities and habitat details.

*Bomarea edulis* is a twining species up to 2 m tall with oblong leaves 5-18 x 2-5 cm, scattered up the stem; 4-30 flowers are carried in loose umbel-like heads and are pinkish-red with green tips, 2.3-3.7 cm long and narrowly funnel-shaped. It is recorded from Mexico, Cuba, Brazil, Bolivia, Paraguay and Argentina. The tubers are edible, hence the name. We grow this one here in Surrey, from a Mexican collection and it is very easy to cultivate; it just needs frost-free conditions in winter while the tubers are dry and dormant, and is then started into growth in late spring by repotting and watering; it needs a trellis or twigs for support and makes an interesting, although not particularly showy, subject for the conservatory. In mild areas it would probably grow outside since its tubers are dormant in winter and protected deep in the soil.

*Bomarea macrocephala* sounds more interesting, the epithet meaning 'large headed'. The authors show this as an erect plant with the stem turned over at the apex so that the head is semi-pendent. It grows to 2 m in height with many narrowly linear leaves 8-15 cm long and only 2-3 mm wide. The umbellate inflorescence is densely-flowered and about 8-10 cm in diameter with many narrowly bell-shaped flowers 3.5-5 cm long; these are pinkish-red, green at the apex and spotted darker inside. It is recorded from the Argentinian provinces of Jujuy, Salta, Tucumán and Catamarca, growing at altitudes of 1800-3000 m.

*Bomarea boliviensis* is erect and only 30-70 cm tall with lanceolate leaves 4-10 x 0.3-1.2 cm and has 3-15 flowers in a loose head; these are 1-2.4 cm long and yellow or orange. It is from Bolivia and Argentina, from the same provinces as *B. macrocephala*.

*Bomarea stans* (*stans* means standing upright) is up to 1.5 m tall and has densely leafy stems 5-18 x 1.5-3.5 cm. The loose umbel-like flower heads carry 5-20 flowers and these are funnel-shaped, yellow-orange with black spots inside. It is from Bolivia and Salta Province, Argentina, at 2000-3000 m.

\* El genero *Bomarea* en Argentina is published in the journal *Darwiniana* 33(1-4):315-336 (1995).

### ***Amaryllid un-extinguished!***

It is unusual, but very encouraging, to report on an extinct bulb which has been re-discovered. In a paper about *Plagiolirion horsmanii*, amaryllid expert Alan Meerow related how this has turned up again in Colombia, 94 years after the last time it was seen; it had been listed by the World Conservation Monitoring Centre in Cambridge as extinct but, although it can be taken off this list, the author considers that it should still be regarded as endangered.

*Plagiolirion horsmanii* was first described in the *Gardeners' Chronicle* 20:38 (1883) by the Kew botanist John Gilbert Baker (see BN 11:8). He noted that 'It has just been flowered by Messrs F. Horsman & Co. of Colchester from bulbs imported from Colombia.' I have not heard of anyone growing this, so presumably it had died out in cultivation and, since it had not been seen for nearly a century, it was presumed to have vanished from the wild as well; the author notes that the forests where it grows are remnants only. In 1989 some non-flowering bulbs of an amaryllid were collected in the Río Cauca valley and these subsequently flowered in 1992, showing that *P. horsmanii* had turned up once again.

This is the only species in the genus *Plagiolirion* (*plagio-* = oblique). It has 1-5 evergreen, stalked leaves up to 45.5 x 15.5 cm and a scape (leafless stem) up to 66 cm tall bearing 10-41 flowers in an umbel about 10 cm across. The white flowers are individually small, only 2.5-3 cm long, and are unscented, but a whole head of them must give quite an attractive display. Each has six petals which spread out on the upper side of the flower, while the six stamens curve downwards, so they are very irregular in shape and maybe this is where the 'oblique' part of the name comes from; the segments are joined into a short green tube and the filaments into a short cup at the base. The habitat is given as mid-montane rain forest at 940-2000 m, with an average annual temperature of 23.5°C.

For those interested in the Amaryllidaceae in general, there is a discussion about the generic relationships as well; it is considered that *Plagiolirion* is related to *Eucharis*, *Caliphruria* and *Urceolina*.

Alan Meerow's paper is published in *Brittonia* 47(4):426-431 (1995).

### ***Haemanthus grandifolius - So that's what it is!***

Many years ago, whilst curating the herbarium specimens at Kew I came across the type specimen of *Haemanthus grandifolius*, described by Isaac Bayley Balfour from the island of Socotra; unfortunately the plant was collected out of flower and the genus was a guess: the specimen consists of one large leaf on the sheet of paper! My colleague, Wessel Marais and I

puzzled over this from time to time but had to accept that it would have to stay where it was, in *Haemanthus*, even when Inger Nordal, who was researching the genus at the time, said that it could not be a *Haemanthus*. And so it remained until recently, when Edinburgh botanists A.G. Miller and D. Alexander visited the island and found the plant in flower. In a paper: '*Haemanthus grandifolius* Balf. f.: an enigma resolved' [*Edinburgh Journal of Botany* 53(1):43-47] they explain that it is a *Ledebouria* (a genus formerly included in *Scilla*) which has two large leaves lying flat on the ground (each leaf can be as much as 23 x 15 cm!) with a raceme of 30-100 small pinkish-purple flowers; each flower is cup shaped at the base with six spreading segments, tending to reflex at the tips. They describe it as growing among limestone or granite rocks under trees and on cliffs at 50-600 m with the bulbs 10-30 cm deep in the soil. *Ledebouria grandifolia* flowers in October-November, at the start of the winter rains.

Thank you, for clearing up this 100-year mystery!

### **A New Greek Autumnal *Allium***

The thought of another autumnal *Allium* is always of interest, although they are not the most striking of plants and the latest certainly appears to fall well into this category. It is *A. ritsii*, described from the area around Monemvasia in the southern Peloponnese. It has the overall 'look' of *A. cupanii*, with a small shuttlecock-shaped umbel of small pale pink urn-shaped flowers; in the case of *A. ritsii* the umbel has 6-10 flowers and they are described as having a green vein along the centre of each segment. The whole plant is about 12-15 cm in height and the 3-5 leaves are so slender as to be thread-like. The bulb tunics of these small alliums of this group (section *Brevispatha*) are sometimes diagnostic and in this case they are netted-fibrous rather than papery. The flowering time in the wild is October-November. A curious feature, shared with a few other species of *Allium*, although they are not related to this new one, is the way in which the leaves sheath the stem all the way up to the umbel of flowers, and the upper leaf extends above the flowers like a spathe; in this feature it differs markedly from *A. cupanii*, but this is not the only difference; the authors say that *A. ritsii* is 'well differentiated ecologically, morphologically and cytologically from the other Mediterranean taxa of this group.'

Gregory Iatrou and Dimitris Tzanoudakis, who are from Patras University, have named the new species in honour of the poet Yiannis Ritsos (1909-1991) who was born and grew up in Monemvasia. His poems have been set to music and translated into more than 18 languages. I wonder if he did a little number about onions?

Their paper is published in *Phyton (Austria)* 35(2): 247-253(1995).



## ***Gladiolus serpenticola*, *G. pavonia* and some new names**

New African species of *Gladiolus* seem to be turning up at regular intervals and Peter Goldblatt and John Manning are the ones finding or describing them. Two which they have described in *Novon* Vol. 6, Part 2 are *G. serpenticola* and *G. pavonia*. The first, *G. serpenticola*, is nothing to do with African snakes - it likes serpentine rock, apparently; it is 75-150 cm tall with 8-10 narrowly sword-shaped grey-green leaves only 7-10 mm wide. The one-sided flower spike has up to 30 pale pink to nearly white flowers, the lower lateral segments of which have central yellow streaks outlined purple; the overall length of the flower, including the curved tube is in the region of 3.5 cm, so this is a quite small-flowered species. It occurs in eastern South Africa, Mpumalanga Province in Barberton District and is a native of soils which often contain high ratios of magnesium/calcium and often high levels of chromium, nickel, iron and copper. It flowers in February-March (summer) in the wild.

The other new species, *G. pavonia*, is 40-80 cm tall with 6-7 leaves, the widest of which are 8-14 mm wide. This has only 2-7 pale pink flowers which are stained red in the tube and the lower segments marked with purple lines. Although the overall length (including tube) is only about 4 cm, the segments are widely flared and result in a flower about 5 cm across. This is also from Mpumalanga Province, flowering in late spring/early summer. The authors explain that they have chosen the name *pavonia* = peacock in allusion to the dark eye in the centre of the flower.

In addition to describing the two new species, Drs Goldblatt & Manning have given species status to the orange-flowered, Western Cape *G. floribundus* subsp. *miniatus*, so it becomes *G. miniatus*. The unusual-coloured *G. debilis* var. *variegatus* from the Western Cape is given species status as *G. variegatus*; this has white or pale pink flowers, conspicuously spotted red in the lower part. Similarly, *G. gracilis* var. *latifolius* (also from the Western Cape) is given species status but, for nomenclatural reasons, this means that a new name has to be provided - the name chosen is *G. caeruleus* because of the pale blue flowers.

The paper includes interesting information about pollination, ecology and taxonomy of the fascinating South African *Gladiolus* species. Hopefully these new ones will find their way into cultivation; there are a great many species and it would be good to see them cultivated much more widely than they are; we are currently enjoying the large, bright pink funnel-like flowers of *G. carmineus* which is the first of the 'winter-growers' to flower here, in early autumn.

## **The Crocus Group**

A superb seed-list dropped through the letter box a few weeks ago, full of tempting *Crocus* species - 186 accessions altogether, representing 57 species plus their subspecies and other variants; this excellent seed distribution is organised by David B. Stephens, one of the NCCPG National Crocus Collection holders. The Crocus Group is an offset of the Iris Species Group which is a subgenus of the British Iris Society; their Bulletin No. 24 describes the members as 'a very loose assemblage of people with a shared interest in the genus *Crocus*.' The Group has no constitution and there is no subscription for membership, although there is a joining fee of £5. The main activities of the Group include the production of a Bulletin and Newsletter, spring and autumn visits to Crocus collections, a sale/exchange of Crocus corms, the seed exchange and an award for the best pot of a Crocus at one of the shows of the Alpine Garden Society. The recent Bulletin has notes on 'A Crocus trip to Turkey, Spring 1996' by Ray Cobb (another Collection holder), 'Crocus cvijicii and *C. pelistericus* in Greece' by Alan Edwards and 'Crocuses in Crete' by Peter Bird.

The Secretary of The Crocus Group is Ann Borrill, 153 Lime Tree Avenue, Wymondham, Norfolk NR18 0TG, UK.

## **Requests**

Dr Peter Bachmann is searching for tubers and/or seeds of *Leontice* and *Gymnospermium* species (Berberidaceae) for a scientific study of the biosynthesis of secondary plant compounds (quinolizidine alkaloids). He would be very grateful for any help since success at obtaining them has been very limited at present. Please contact us at the BN office, or write direct to Dr Bachmann, Institut für Pharmazeutische Biologie, Technische Universität Braunschweig, Mendelssohnstrasse 1, D-38106 Braunschweig, Germany.

## **From the Postbag**

John Grimshaw has picked up on the mention of *Drimiopsis* (BN15:3) and other Hyacinthaceae and has sent us the following notes about some of those he has seen in recent years in Tanzania:

'*D. botryoides* is indeed well worth having, but is not easy to grow. Mine was late in starting into growth in 1995 and then rotted in the winter of '95-96, despite being kept dry. There are some sumptuous *Ledebouria kirkii* variants around Kilimanjaro; I had intended to bring one back but something ate it in its pot (while dormant) before I left [I'm glad it happens to other people as well - BM!]. *Ornithogalum gracillimum* is a

charmer, but very ephemeral in flower, with specialised edaphic requirements: shallow soil in rock basins subject to flooding.'

John has also corrected my spelling of *Tulbaghia cominsii* which has only one 'm'. Sorry for any confusion this may have caused - please change all labels back again!

## Catalogues

Lauw de Jager of Bulb'Argence has sent us the 1996 bulb list which includes many familiar ones as well as a few surprises. For instance, I haven't seen *Eustephia jujuyensis* on many lists before; this is a South American amaryllid, related to *Phaedranassa* and has similar pendent red tubular flowers. This particular species seems not to have been formally described - in the botanical sense, but it clearly must have originally been introduced from the wild to have been named after the province of Jujuy in Argentina. Like *Phaedranassa* and *Stenomesson*, and their relatives, this is frost-tender but they are all interesting plants for a heated conservatory or glasshouse in areas where they will not survive outside. *Neomarica gracilis* is another seldom-encountered South American, this time an Iris-like evergreen, also tender and requiring extra warmth in winter. The flowers are rather like those of an *Iris* in general shape although the inner three segments - the 'standards' of an *Iris* - are rolled inwards in a sort of rams-horn fashion, as in *Tigridia* and *Cypella* flowers. Fascinating plants, but the flowers are very short-lived.

*Urceolina urceolata* (now included in *Stenomesson* by some botanists) is the less well-known of the urceolinas, *U. coccinea* being the most frequent one around in cultivation. the latter has urn-shaped orange-red flowers whereas in *U. urceolata* they are similar but yellow, tipped with green, and the leaves are very much wider.

I like to see the named selections of *Ixia*, *Babiana*, *Tritonia* and *Sparaxis* offered, as opposed to the almost inevitable hotch-potch of 'mixed'; it always suggests to me that the trade regards the public as being unable to cope with anything slightly out-of-the-ordinary, so they just tip the whole lot in together and call it a star-spangled harlequin mix, or something similar! I don't know *Hypoxis multiceps* but I guess it to be one of the robust African yellow, cluster-headed, species of which there are quite a lot; nice, but also tender here.

Bulb'Argence, Mas d'Argence, Fourques, 30300 Beaucaire, France.

The popularity of *Cyclamen* species seems to continue undiminished and will probably continue to do so, certainly as long as novelties in the form of new selections continue to appear on the scene, and in this lovely genus there seems no end to the permutations and combinations of leaf

shape and colour with flower colour and form. Because of this great potential to vary it is great fun to grow them from seed. Jill White is a good commercial source of a wide range and her 1996 list includes *C. parviflorum*, *C. rohlfsianum*, *C. cilicium album*, a selection of leaf forms of *C. coum*, *C. libanoticum*, and the hybrids between *C. creticum* and *C. balearicum*. Tubers of most species are also available and special items which catch the eye include *C. repandum album*, *C. graecum album*, *C. rohlfsianum* and *C. parviflorum*. These are all 'home-grown', of course, in the U.K.

Jill White, 6 Edward Avenue, Brightlingsea, Essex, CO7 0LZ, U.K.

I wasn't sure whether to put this item under 'catalogues' or 'stamps', since it covers both. It is a stamp catalogue! Jim Almond has collections of flower stamps for sale, listed under their countries of origin; not just bulbs, although there are lots, as well as many alpiners. Collections which attracted my attention were Albania: 6 Lilies, 1970 (not all native ones), 10 Austria, 1948 (includes *Cyclamen* and *Crocus*), 7 Bulgaria, 1968 (includes *Crocus veluchensis*, *Iris sibirica*, *Erythronium dens-canis*), 6 Bulgaria, 1978 (*Lilium jankae*, *L. rhodopaeum*, *Fritillaria stribrnyi*, *F. drenovskyi*, *Tulipa rhodopaea*, *T. urumoffii*), 6 Cyprus, 1990 (including *Chionodoxa lochia*, *Pancratium maritimum*, *Cyclamen cyprium*, *Crocus cyprius* and *Tulipa cypria*), 6 Czechoslovakia, 1960 (includes *Cyclamen purpurascens*) and many more.

While you are sending for the stamp list, you really should ask for the plant list - or vice-versa! Although predominantly alpiners there are some good bulbs here as well - a range of *Cyclamen* (incl. *C. purpurascens* 'Silver Leaf'), *Erythronium* (including the splendid "cliftonii" version of *E. multiscapoideum*), *Incarvillea zhongdianensis* (well, all right, not a bulb but it has a fat root), *Iris kemaonensis* and some seeds as well. And then we come to the third list - the Bulb List! Lots of *Calochortus* and *Fritillaria*, and some oddities - *Albuca* aff. *polyphylla*, *Gladiolus flanaganii* -----.

Jim Almond, 5 Coolock Close, St Peters Park, Shrewsbury SY3 9QD, U.K.

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INDEX TO GENERA - 1996

- Agapanthus 16:4  
 Albuca 15:3,5  
 Allium 13:20;14:11;  
     15:9,13;16:15  
 Alrawia 15:5  
 Amianthium 13:16  
 Amphisiphon 15:5  
 Androsiphon 15:5  
 Androstephium 13:19;16:4  
 Anomatheca 13:17  
 Arisaema 16:1  
 Arum 16:1  
 Babiana 13:8  
 Behria 13:4;16:4  
 Bellevalia 14:7;15:5,10,17  
 Bessera 13:7;16:4  
 Bloomeria 16:4  
 Bokkeveldia 14:9  
 Bomarea 16:13  
 Bowiea 15:3,5  
 Brimeura 15:5  
 Brodiaea 13:6;16:4  
 Caliphruria 16:14  
 Calochortus 13:13;14:14  
 Camassia 15:5  
 Cardiocrinum 16:3  
 Chamelum 14:12  
 Chionodoxa 15:5  
 Chlorogalum 15:5  
 Colchicum 13:14;16:10,12  
 Crinum 13:14;14:11  
 Crocopsis 16:8  
 Crocus 13:1,5,11-12,14;  
     14:10,12,16;15:1,19;16:10  
 Cyclamen 15:12,16;16:5  
 Cypella 13:15;14:10,16  
 Cypripedium 15:14  
 Cyrtanthus 13:9  
 Dandya 16:4  
 Daubenya 15:5  
 Dewinterella 14:9  
 Dichelostemma 16:4  
 Dipcadi 15:3,5  
 Dracunculus 13:7  
 Drimia 15:3,5  
 Drimiopsis 15:3,5  
 Eriospermum 15:3  
 Erythronium 13:13;15:4,7,20  
 Eucharis 16:14  
 Eucomis 15:5  
 Eustephia 14:14  
 Eustephiopsis 14:14  
 Fortunatia 15:5  
 Freesia 13:17  
 Fritillaria 13:3-5,15;  
     14:4,6,16;15:1,4;16:3  
 Galanthus 16:9  
 Galtonia 13:8;15:5  
 Gemmaria 14:9  
 Gladiolus 15:9  
 Gloriosa 13:9,15;15:16  
 Haemanthus 14:9,15;16:14  
 Hastingsia 15:5  
 Haylockia 16:6  
 Helicodiceros 13:7  
 Helonias 13:16-17  
 Heloniopsis 13:16  
 Herbertia 14:10,16  
 Hesperocallis 15:5  
 Hessea 14:9  
 Hexaglottis 14:15  
 Hieronymiella 14:14  
 Hippeastrum 14:12  
 Homeria 14:15  
 Hyacinthella 15:5  
 Hyacinthoides 14:1;15:5  
 Hyacinthus 13:18;15:4,5  
 Hymenocallis 13:16  
 Ipheion 15:11  
 Iris 13:12-13  
 Lachenalia 15:6  
 Ledebouria 13:8;15:3,6;16:15  
 Lilium 13:14,16;15:4;16:3  
 Litanthus 15:6  
 Lycoris 14:13;16:2  
 Massonia 15:6  
 Melanthium 13:16-17  
 Merendera 13:14  
 Milla 13:7;16:4  
 Moraea 14:14  
 Muilla 16:4  
 Muscari 15:6  
 Muscarimia 15:6  
 Namaquanula 14:9  
 Narcissus 13:2,14;16:6,11  
 Narthecium 13:16  
 Neopatersonia 15:6  
 Nomocharis 13:13-14;16:3  
 Notholirion 16:3  
 Nothoscordum 15:11  
 Ochagavia 13:4  
 Olsynium 14:11  
 Ornithogalum 15:3,6,7  
 Pamianthe 16:11  
 Phallocallis 13:14  
 Philodendron 13:4  
 Plagiolirion 16:14  
 Polyxena 15:6  
 Pseudogaltonia 15:6  
 Pseudomuscari 15:6  
 Puschkinia 15:6  
 Pyrolirion 16:9  
 Rhadamanthus 15:6  
 Rheome 14:15  
 Rhodocodon 15:6  
 Romulea 14:8  
 Roscoea 13:4  
 Scadoxus 14:15  
 Schizobasis 15:3,6  
 Schoenolirion 15:6  
 Scilla 13:14;14:1,9;  
     15:3,6,12;16:15  
 Sisyrinchium 14:12  
 Stenanthium 13:16  
 Stenomesson 16:8  
 Sternbergia 13:14;14:13  
 Strumaria 14:9  
 Tedingea 14:9  
 Tenicroa 15:6  
 Thuranthos 15:6  
 Tigridia 13:14;15:16  
 Tofieldia 13:16  
 Tricrytis 13:9,18  
 Trillium 16:4  
 Tristagma 15:11  
 Tritoleia 16:4  
 Triteliopsis 16:4  
 Tulbaghia 15:7  
 Tulipa 14:4;15:4,15;16:1  
 Ungernia 14:12  
 Urceolina 16:14  
 Urginea 13:12;15:3,6  
 Veltheimia 15:6  
 Veratrum 13:16  
 Whiteheadia 15:6  
 Xerophyllum 13:16  
 Zephyranthes 16:7  
 Zigadenus 13:16