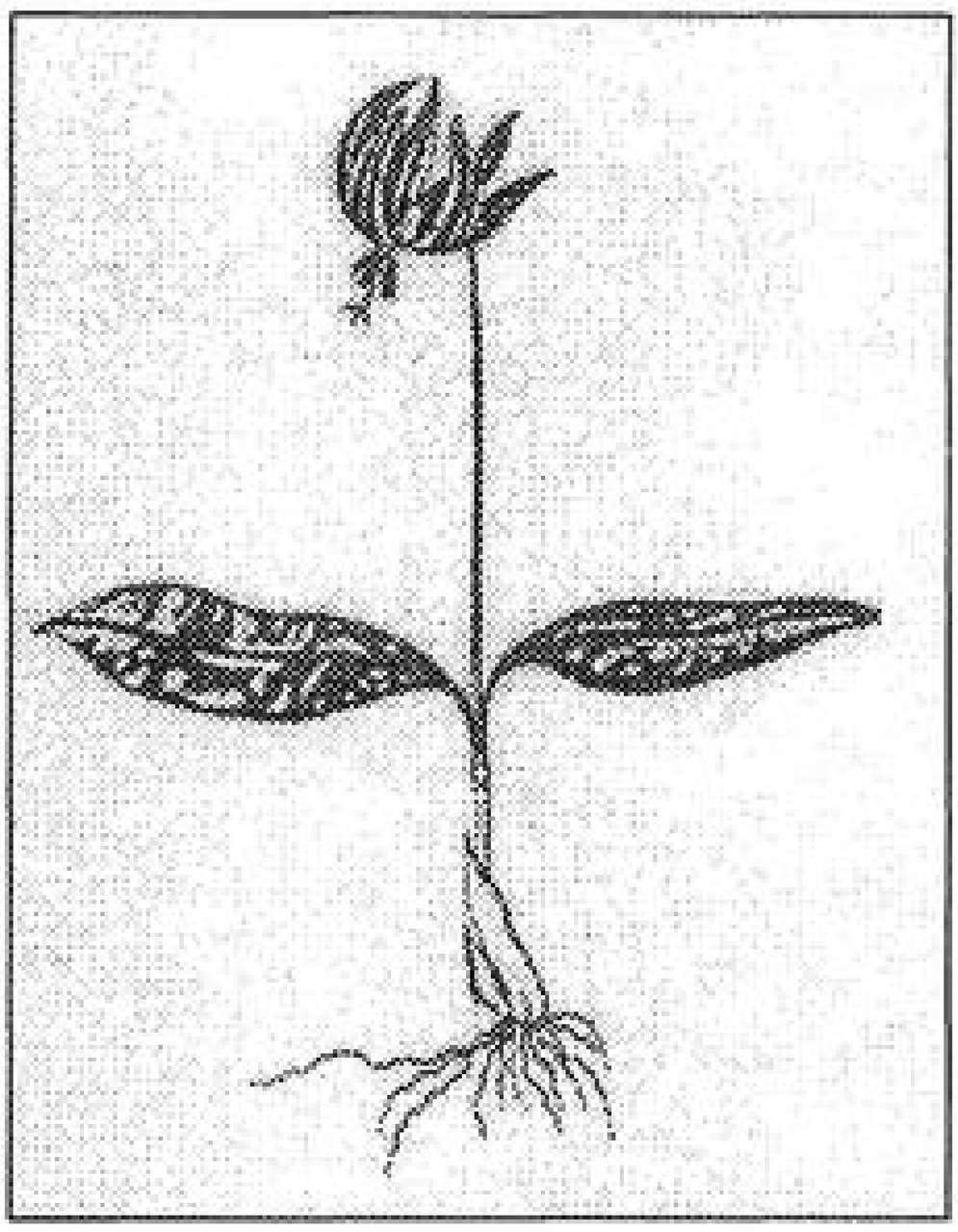
THE BULB

NEWSLETTER



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The Bulb Newsletter No. 13

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Giant Crocuses

It has been a splendid autumn-winter season for bulbs so far, after a long warm dry summer in the U.K.(subscribers in other countries will be getting tired of Brits going on about it, but it is a rarity!). Autumn crocuses were especially good in 1995, free-flowering and in fine condition. One in particular caught my eye. With crocuses, big is not necessarily beautiful but in the autumn months a good splash of colour is always welcome. At the end of October - which is mid to late autumn in Britain - I noticed a large lilac something pushing up through a prostrate *Daphne*, poor Daphne, she was about to be dominated by the biggest and most robust *Crocus* in the garden, a variant of the amazingly variable *C. serotinus* ; this one was collected a long time ago in North Africa by Beth Chatto. *Crocus niveus* is big but it has nothing on this plant which measured in at: leaves 30 cm long at flowering time (they will expand, of course), perianth tube (the above-ground part) 15 cm long with another 10 cm underground, perianth segments 7.3 cm long, flower diameter when open in the sun 11 cm, corms 4.5 cm in diameter .....yes, this is a big one! I have seen specimens of *C. speciosus* as large, and *C. niveus* and *C. goulimyi* can have very long perianth tubes, but the overall impression of this one is of a plant of great substance, with bold tufts of well-developed deep green leaves; even these are wide for a crocus. Unfortunately the perianth segments are rather narrow in relation to their length, so the flower has not quite so much impact as it might. *Crocus serotinus* is a troublesome plant, taxonomically speaking, although one can recognise three subspecies, largely based on features of the corm tunics; two of these, subsp. *serotinus* and subsp. *clusii*, are more or less geographically distinct in Portugal but the third, subsp. *salzmannii* is much more widespread in Spain and North Africa. Within this area there are certain trends: for example, the smaller often darker-flowered northerly plants from Asturias have been called *C. asturicus*. In southern Spain, there are large pale-flowered plants , one variant of which was referred to as *C. granatensis* . Other plants are stoloniferous, as in *C. nudiflorus* , some have developed leaves while others are almost

leafless at flowering time, and there is great variation in perianth segment shape and size, depth of lilac-purple colour, the colour of the throat, the length of the perianth tube, the width of the leaves and the corm size. It may be possible to subdivide subspecies *salzmannii* in some way, but one needs to look at the whole range of variation, and the variation within individual populations, not just a few collections from here and there over its wide area. Meanwhile, I shall continue to be impressed - enjoy is not quite the word - by this 'big salzmannii' as I will have to refer to it, since it has no formal name.

Another Narcissus

J.F. Ureña, in *Bot. Complutensis* 19:83-88 (1994), has described a new species of *Narcissus* from Montecorto, Malaga Province, Spain. It is *N. cerrolazae,* a member of the Jonquilla group, which is compared with the well-known *N. jonquilla* and with *N. baeticus*, a species described by Fernández Casas. The description shows that *N. cerrolazae* is a variable plant of 15-50 cm in height with 1-3 leaves which are flat or concavo-convex, striated on the keel and shorter than the flower stem; the flowers are usually solitary, but sometimes 2 and rarely 3-4 in the umbel, quite large at 26-39 mm in diameter; the pedicel is 15-45 mm long, shorter than or equalling the spathe; the perianth tube is straight or slightly curved, 22-28 mm long, the cup distinctly 6-lobed (the lobes 2-4 mm long), 5-7 mm deep and 11-16 mm across, and the six perianth segments are more or less equal, 11-18 mm long and 8-13 mm wide. The author provides a table showing how his new species may be distinguished from the two related species; the distinctions rely on a combination of features, since most of the measurements or characters overlap to some extent; the conspicuously 6-lobed corona seems to be one of the points regarded as significant, the other two species allegedly having irregularly crenate ones. *N. cerrolazae* is recorded from wet places on basic soils at about 450 metres; the habitat of *N. jonquilla* is stated to be wet places on acidic soils at 600-700 m and that of *N. baeticus*, rocky (basic) places at c. 1000 m.

Narcissus minor & its allies

The taxonomy and nomenclature of the group of *Narcissus* surrounding the name *N. minor* Linnaeus has come under scrutiny by Alfredo Barra Lázaro & Ginés López González of the Botanical Garden, Madrid. In a paper 'The identity of Narcissus minor and its allies' (*An. Jard. Bot. Madrid* 52(2):171-178(1994)), the authors say that in their opinion 'N. minor must be considered to be the correct name for the Spanish plants currently known as *N. jacetanus* Fern. Casas.' They go on to enumerate the various taxa

which they recognise and list the synonyms, as follows:

N. minor L. subsp. ***minor*** [Syn.:*N. exiguus* Salisb., *N. minimus* (Haw.) Heynh., *N. minor*var. *minimus* (Haw.)Pugsley, *N. minor*var. *humilior*Herb., *N. jacetanus* Fern. Casas, *N. asturiensis* (Jord.)Pugsley subsp. *jacetanus* (Fern.Casas)Uribe-Echebarría]

A variety of subsp. *minor* is recognised:

N. minor subsp. ***minor*** var. ***brevicoronatus*** (Pugsley)Barra & G. López [Syn.:*N. asturiensis* var. *brevicoronatus* Pugsley, *N. asturiensis* subsp. *brevicoronatus* (Pugsley)Uribe-Echebarria, *N. jacetanus* subsp. *vasconicus* Fern. Casas, *N. vasconicus* (Fern. Casas)Fern. Casas, *N. asturiensis* var. *vasconicus* (Fern.Casas)Uribe-Echebarría]

N. minor subsp. ***asturiensis*** (Jordan)Barra & G.López [Syn.:*Ajax asturiensis* Jordan, *A. cuneiflorus* Salisb., *N. asturiensis* (Jordan)Pugsley, *N. cuneiflorus* (Salisb.)Link , *N. pumilus* Salisb. (illegitimate name), ?*N. lagoi*Merino]

Within subsp. *asturiensis* they suggest that the following varieties are recognised:

N. minor subsp. ***asturiensis*** var. ***cuneiflorus*** (Salisb.)Amo
N. minor subsp. ***asturiensis*** var. ***villarvildensis*** (Diaz & Prieto)Barra & G.López

I include these notes, not because I think it is likely to be the last word on the treatment of the group but because it might assist those who are attempting to unravel the already complex classification of the genus to keep their lists of synonyms up to date!

Promotion for rare fritillary

In the latest *Curtis's Botanical Magazine*, Vol. 13, Part 1 (1996), *Fritillaria imperialis* var. *chitralensis* is upgraded to species status, is provided with a full description and attractively illustrated using a lovely watercolour by Joanna Langhorne. Although known for a long time - it received an Award of Merit in 1910 - *F. chitralensis* has never been cultivated widely and had probably disappeared from cultivation until Piers Carter, a former British Ambassador in Kabul, introduced the present stock from Afghanistan. The plant illustrated in the *Bot. Mag.* was cultivated at Kew but it is around in a few other specialist bulb collections. This is a lovely plant, distinct from *F. imperialis* in being shorter, usually less than 25 cm in height, with only 1-4 large (3-5 cm long) bright yellow flowers which have smaller nectaries; the plant appears to lack the fox-like smell which is so noticeable in the Crown

Imperial. *F. chitralensis* is confined to Kashmir and eastern Afghanistan whereas *F. imperialis* occurs over a much wider area, from south-east Turkey to Central Asia, Afghanistan and Kashmir; as far as I can ascertain the two species have not been recorded growing together in those areas where their distributions overlap.

Curtis's Botanical Magazine can be obtained from Blackwell Publishers, 108 Cowley Road, Oxford, OX4 1JF, UK or 238 Main Street, Cambridge, MA 02142, USA.

A New Roscoea from Nepal

Several interesting new roscoeas have been described in recent years, mainly as a result of the studies by Jill Cowley at Kew. The latest, described by Jill Cowley and William Baker in the same issue of *Curtis's Botanical Magazine* as *Fritillaria chitralensis* (see above item), is *R. ganeshensis*. This is a newly-discovered one from the Ganesh Himal in central Nepal, collected by William Baker and his colleagues in 1992 whilst on an Oxford University expedition; on the same expedition they also collected the red-flowered variant of *R. purpurea* which was described in the *Botanical Magazine* in 1994 as 'Red Gurkha'. *R. ganeshensis* is a very compact roscoea with broad leaves packed tightly together, so that the whole plant is only 12-15 cm at flowering time. The flowers are purple in varying shades, and are notable because of the large attractively crimped and wrinkled lip, rather like a piece of crumpled silk, a texture which is captured beautifully by the artist Christabel King.

Other monocots in Bot. Mag.

Although non-bulbous, there are two other interesting monocots in the above Vol. 13 Part 1 of the *Botanical Magazine*, one is a large tropical aroid from French Guiana, *Philodendron billietiae*, named by Tom Croat after its discoverer Frieda Billiet, a botanist at the National Botanic Gardens in Belgium. This has very bold foliage in a curious shade of blue-green with contrasting yellow-orange stalks and may therefore be of ornamental value as a house plant. The other, a spectacular bromeliad from Chile, *Ochagavia elegans*, could find a following among growers of unusual near-hardy plants, suitable for that currently acceptable piece of garden equipment known as a 'frost-free alpine house'! This is one of the most southerly-occurring bromeliads in South America, confined to the island of Masatierra, and is thus one of the hardier species; the plant illustrated by Mark Fothergill was cultivated in the Alpine House at Kew, but it does in fact require just frost-free conditions if it is to survive. Kew botanist and bromeliad specialist Paul Wilkin describes this striking

species, its history, relationships and cultivation, in great detail; it is a rock plant in the wild, growing in crevices and on ledges, forming dense spiny rosettes with a large stemless head of tubular bright pinkish-purple flowers in the centre.

News From Turkey

A project to encourage the propagation of native bulbs in Turkey, organised jointly by the Istanbul-based Society for the Protection of Nature and Fauna & Flora International, is progressing. Andy Byfield, who helped to set up the project - The Indigenous Propagation Project - tells us that the first bulbs might be harvested this year from their commercial growing site in the Toros Mountains.

These two organisations have also started another project in Turkey, not specifically devoted to bulbs, called the IPA - Important Plant Areas of Turkey. To quote from the *Fauna & Flora News* No.4: "The aim of the .....project is to identify botanical 'hotspots' and to promote their conservation. With a flora comprising around 10,000 species, including 3000 endemics, and a land surface approximately three times greater than the U.K., this is an ambitious project. We initially identified c. 160 candidate sites and are now in the process of visiting each one to assess floristic interest and to document site characteristics and threats. To date we have surveyed some 60 sites, ranging from the smallest of sand dunes to the largest of mountain ranges." These surveys are, of course, quite likely to result in new finds - either new species or new records for Turkey - and BN has already reported on *Fritillaria sibthorpiana* subsp. *enginii* (BN 11:8) which was discovered during one of the surveys. One of the rarest of the 'bulbs' so far investigated is *Crocus olivieri* subsp. *istanbulensis* which I described as a new subspecies in 1982. The *F & F News* reports this as being restricted to a single site on the edge of Istanbul and seriously threatened, the population consisting of as few as 300 individuals. A case has been submitted to the Bern Convention Secretariat to add this, and eight other plants, to CITES Appendix 1. Various threats to plants have been identified, such as mining, drainage schemes, planting of new forests (thus destroying open habitats), overgrazing, peat extraction and building (especially in coastal sites) of houses, hotels and roads; although not mentioned, one could add to this list, the flooding of valleys for reservoirs and plant collecting - all the usual threats, of course, not just applicable to Turkey. The clever part comes in trying to achieve an acceptable balance between all the various interests.

The Good Bulb Guide

Fauna & Flora International have produced a leaflet called *The Good Bulb Guide 1995* in which the above bulb propagation in Turkey project is described in more detail. There is also information about the labelling agreements which have been arranged with the Dutch bulb industry; all bulbs grown in or re-exported from the Netherlands will now bear a label giving an indication of their origin, either 'Bulbs from Wild Source' or Grown from Cultivated Stock'; there is a similar agreement in the U.S. between the nursery industry and the Federal Trade Commission. The Guide also includes lists of nurseries which have pledged to either 'never knowingly sell wild collected bulbs' or to clearly label all wild bulbs as "From Wild Source". The leaflet is obtainable from FFI, Great Eastern House, Tenison Road, Cambridge, CB1 2DT (£1, and please include an A5 s.a.e.).

Behria-hunting in Baja California

Some years ago, Dr Lee Lenz, then of the Rancho Santa Ana Botanic Garden in California sent me a colour slide of *Behria tenuiflora*, a curious *Brodiaea* relative from Baja California with tubular red flowers, but I have never had the opportunity to try cultivating this rare plant, until now. Sally and Tim Walker, source of so many unusual North and Central American plants (see Catalogues, this issue p. 17) have just sent in details of the plant with the good news that they have visited Baja California and successfully gathered some seeds, which are included in a Supplement to their seed list. Sally writes: "In mid November we both flew down to La Paz and rented a V.W. bus. We had heared that southern Baja received three hurricanes, so surely there would have been enough moisture for *Behria* to sprout. We found the plant right away. It was really too late & most seeds had shed, though it had obviously flowered so abundantly that we got enough seed."

As with all the members of this group of genera, *Behria* has a corm, narrow basal leaves and a wiry stem bearing an umbel of flowers. In the case of *Behria tenuiflora*, which was described by E.L. Greene in 1886, these are 1.8-3 cm in length, somewhat expanded at the base with six 'bumps', presumably corresponding to the position of the nectaries inside the base of the long tube (they must surely be humming-bird pollinated, being red, tubular and Mexican!); above the swollen part, the tube narrows slightly then continues almost parallel-sided to the apex where there are six short lobes, only a few (c.5) millimetres long. Projecting well beyond the lobes are six very conspicuous stamens with red filaments and what appear (from

Lee Lenz's slide) to be blackish-blue anthers with yellow pollen. Sally says that the field notes on one of the dried specimens in the herbarium of the University of Arizona describes the anthers as 'dark blue-green'. Although the colour of the perianth is basically an orange-red shade the whole flower is made brighter still by six yellow stripes which run from the lobes almost down to the base of the tube. The one umbel shown on the transparency I have shows about 12 flowers but the range given in literature suggests that there might be up to 20 or as few as 5. *Behria* was at one time 'sunk' into *Bessera*, both by J. Macbride in *Contributions from the Gray Herbarium* 56:11 (1918), and by H.E. Moore in an extensive article on the genus *Milla* and its allies (*Gentes Herbarum* 8: 263-294, 1953). However, it seems that it is now cosidered better to regard it as belonging to the allied but distinct monotypic (i.e. containing only one species) genus *Behria* once more. Many thanks to Sally and Tim Walker for doing the homework on this fascinating plant, and for gathering some seeds which will hopefully lead to it becoming more widely known in cultivation. On the subject of cultivation, little is known, of course, and it will be a question of experimentation, starting with the basic question as to whether to treat *Behria* as a summer- or winter-grower. Most Mexican bulbs are summer-growers, but this is from Baja California so may behave rather differently; in fact Sally reports that the dried specimens she has seen show varied flowering times, in October and March. Could it be that *Behria* responds primarily to availability of moisture rather than to winter v summer, so will grow whenever enough water becomes available, regardless of time of year? Time will tell, we hope.

Recognition for a real stinker

Aroid specialist Peter Boyce of the Royal Botanic Gardens, Kew has taken a close look at *Dracunculus* and has concluded that the incredible *D. muscivorus* from the Balearic Islands, Corsica and Sardinia should be re-instated into a genus of its own, *Helicodiceros*; *Flora Europaea* Vol. 5 (1985), included this species in *Dracunculus*, as did Parlatore in 1857. According to Peter Boyce there are a whole string of differences supporting the case for the separation of these two genera. *Helicodiceros muscivorus* is perhaps not everyone's idea of fun, but all would have to admit that it is impressive. When in flower, the spathe may be as much as 45 cm long, lying on the ground or held only slightly above it, and is pale green suffused and blotched pink and covered with purple hairs, especially dense around the entrance to the tubular basal part; I doubt that I need to say that it has a most foul smell, of 'rotting fish, dung or carrion', to quote Peter's own perception of the aroma. I find that, although this grows very readily, it is

quite difficult to get it to flower, but perhaps this is all to the good! *Dracunculus* is now left with two species, the common Balkan-Greek-Turkish *D. vulgaris*, which normally has a purple spathe and purple spadix, and the less well known *D. canariensis* from the Atlantic Islands of Gran Canaria, Tenerife, La Palma and Madeira which has greenish white spathes and a pale yellow spadix. Peter Boyce notes the occurrence of plants of *D. vulgaris* from Crete with white, yellowish or purple-and-white marbled spathes, but considers them to be sports of *D. vulgaris* with no real taxonomic status; these retain the purple spadix, although there is a record of a plant with a white spadix from Turkey. The full paper by Peter Boyce is to be found in Thaiszia - Journ. Bot., Košice 4:175-182(1994).

A Gallonia in an odd spot

A few years ago Maurice Boussard sent me some seeds which a surgeon friend of his had collected on the island of Socotra. They were grown in a pot in the greenhouse, since I assumed that they would be rather tender, and they grew so rapidly that the resulting bulbs took only two years to flower, in summer 1995. I was very surprised to find that they were, apparently, *Gallonia candicans* - at least, I can see no real difference, other than size, and that can be accounted for by the fact that they are crammed into a small pot. There are three possibilities: 1. this is a mistake, the seeds having been muddled somewhere since collection. 2, it has been introduced to the island of Socotra sometime in the past, or 3, it is a range extension for the genus *Gallonia* which is thought to be confined to the Eastern Cape region of South Africa. This last is not an entirely crazy suggestion since the island is known to have one species of *Babiana* (*B. socotrana*), a genus otherwise wholly Southern African; *Ledebouria* also occurs there, again primarily a Southern African genus. I contacted Maurice, who could not supply much further information, but what he did have was interesting. His friend had reported that the plant was rather tall (80 cm), bulbous, with foliage looking like a stout leek, and large white, bell-shaped flowers; three specimens were found in an isolated place. The seeds were found in dry pods, left over from the previous season. This rules out the question of a mistake, so we have made progress, but whether the plant is native there or was introduced by someone in the past we may never know. I cannot imagine that there have been many gardeners on Socotra and, even if there had been, it is more likely that they would have created a garden near to a town or village; and surely they would have introduced something horticulturally rather more exciting than *Gallonia candicans*?

Requests

Paul Chapman is seeking *Cyrtanthus* enthusiasts with whom he can correspond and exchange plants. He is especially interested in obtaining *C. montanus* but would be pleased to purchase (or exchange) any unusual species. Address: 19 St Michael's Mount, Wallington, Surrey SM6 8QD, U.K.

Wan-Pyo Hong of Reading University is seeking help in obtaining seeds or live plants of *Tricyrtis* for a Ph.D. project at Reading University. There are taxonomic and nomenclatural problems in this currently popular genus and it is hoped that a detailed study will help to solve these and also clarify the relationships between the species, thus assisting in any future breeding work. Please write direct to Wan-Pyo Hong, *c/o* Dr S.L. Jury, Dept. of Botany, School of Plant Sciences, University of Reading, Whiteknights, P.O. Box 221, Reading, RG6 6AS, U.K.

Ernst Markus has an interest in the variations of Fritillaria persica, including all those other ?species/variants which have been lumped into it, such as F. arabica, F. libanotica, F. eggeri etc. In particular he would like to obtain bulbs or seeds of any variants originating from Iran; there is a lot of variation in colour there, purple, brown, yellow and so on. If you can help, please contact: Ing. Ernst Markus, Hausergasse 3, A-3400 Klosterneuburg, Austria.

Variations of the Glory Lily

There is a general tendency to 'lump' all the variants of *Gloriosa* into one species, *G. superba*, but, even if one accepts this view, from a horticultural standpoint several of the variants are worth cultivating because they are strikingly different. This note is intended partly just to promote interest in these very rewarding plants, partly as an appeal for a spare offset from anyone who is growing any of those listed below, and partly an attempt to accumulate information. This long standing interest has been re-kindled by Wessel Marais who contacted me recently about one which was collected in Ethiopia some years ago; it is certainly different from the standard *G. superba* which is currently very widespread in cultivation, and it may represent an undescribed species. Although there is much to be done before all the published information has been accumulated it might be useful to provide a list of those names tracked down so far.

abyssinica. Non-climbing, 1.5-2 feet (45-60 cm) in height, not branched; one reference says, 'flowers with broader segments [it is compared with

virescens], not at all crisped at the margins.' Hooker describes the perianth segments as being very broadly lanceolate, apparently of a uniform orange colour, and the leaves with only small weak tendrils.

carsonii. Non-climbing. Described in 1895 from the neighbourhood of Lake Tanganyika.

grandiflora. Climbing. Described by Hooker in 1860 in the *Botani_cal Magazine* from a tubers sent to Kew from Fernado Po (now part of Equatorial Guinea) by Gustav Mann. It grew rapidly and 'the rafters of the stove [greenhouse] were soon clothed with the leafy branches'. The flowers were said to be nearly twice the size of those of *G. superba* or *G. virescens* and wholly sulphur yellow, except for a green centre at the base of the claws of the segments, which were narrowly lanceolate and scarcely wavy at all at the margins. Unfortunately we have no **BN** subscribers on Bioko Island (Fernando Po)!

leopoldii. Climbing. Yellow flowers.

minor. Dwarf, non-climbing, At most 20 cm in height with very narrow leaves. Desert and semi-desert areas of northern Kenya and southern Ethiopia. [see also BN9:2]

plantii. Climbing. Flowers have wavy segments

rothschildiana. Climbing. In 1903 James O'Brien described *G. rothschil-diana* in *Gardeners' Chronicle*. 'A magnificent new spe cies of Gloriosa has flowered with the Hon. Walter Rothschild, M.P., at Tring Park, Tring, from tubers collected by Major H.B.Rattray, in the Uganda district, near the Lake Victoria Nyanza, Tropical Africa, and which proves to be by far the hand somest of the genus.' Much of the formal description could apply to other gloriosas so I have just extracted the more interesting bits: it is a climbing variant with tendrils at the apex of the leaves, the flowers have oblong-lanceolate segments, acuminate at the apex, slightly wavy at the margins and over 3 inches (7.5 cm) long. The colour is described as glowing crimson with a dark purple mark at the base. The accompanying illustration is very misleading in that it shows the pendent flowers as bell-shaped with just the tips of the segments turned back, which suggests that it was either in the stage of opening, before the segments had fully reflexed, or had just wilted.

simplex. Some have regarded this as the correct name for *vires_cens* but David Field, who studied the genus at Kew some years ago, considered that the name should be rejected on the grounds that it could not be attributed with any degree of certainty to any *Gloriosa* in particular

superba. Climbing. Yellow and red flowers, the segments of which are narrow (about 1 cm wide), much undulated at the margins, and sharply reflexed.

virescens. Climbing. Variable in colour from yellow to various tints of yellowish-red. The segments are not as undulate or crisped as in *G. superba* and are rather broader than those of 'familiar' *G. superba*, at about 2 cm wide. Cythna Letty, in *Wild Flowers of the Transvaal* , considers this to differ from *superba* by its less crisped segments which are broader towards the middle and curve inwards in the upper half, forming a turk's cap shaped flower.

In addition to these there are other names in literature which need further investigation, such as *lutea*, *verschuurii* and x *rockefelleriana*. More in due course.

The Crocus Sack

In BN 12:12, Wessel Marais posed the question: what is a 'crocus sack'?, mentioned in a story set in Georgia, USA. We have received two very similar replies, one from Judy Glattstein of Frenchtown, New Jersey who says: "I believe what is meant is a croaker sack, which was a large, coarse-woven burlap sack. There was a risque reference in one novel set in the South, mentioning a well-endowed young woman who swayed when she walked- like two bobcats fighting in a croaker sack. For the etymology of croaker sack I'd look in a dictionary of American slang." [Sorry, if you did not intend me to print the latter piece, Judy! - BM]. From Estacada, Oregon, Jane McGary writes: "I'll look up 'crocus sack' next time I'm near a good dialect dictionary. I do know it is usually spelled 'croker sack', and my impression is that it's what we northerners call a 'gunny sack'. It is rather a large sack, so probably would not be used for either corms or saffron. I suspect McCullers, or her editor, used the spelling 'crocus' because the phrase is not in the standard dictionary, and in Southern speech the two versions I cite above would be indistinguishable." Crocus enthusiasts will probably be interested in the rest of Jane's comments: "I don't know if they ever grew saffron commercially in the South, but they did grow it in Pennsylvania. Once I had a visit from the local Mennonite minister and his wife, both octogenarians, and seeing all the plants she asked if I had ever heared of saffron. I was able to dig a cluster of corms for her, and she was delighted at the prospect of cooking some dishes she remembered from her childhood in Pennsylvania. Her family had brought some to Oregon, but it had died out decades ago. The Mennonites, an Anabaptist sect, follow old-fashioned ways and use a lot of herbs for both cooking and medicine."

The New Plantsman: new Iris, Crocus etc.

Craig Anderson writes from Chicago to say that he has heared that *The Plantsman* has been revived, and could we give details. Certainly: *The New Plantsman*, replacing the previous 'old' one, and now including colour illustrations, is published by The Royal Horticultural Society* and Vol. 2 has just been completed. The two most recent parts contain items of monocot interest: Vol. 2, part 3 includes a new Turkish subspecies of *Crocus biflorus*, described by B. Mathew (oh, him!) as subsp. *watliorum* in honour of Peter and Penny Watt who first drew my attention to this interesting plant. It is an autumn-flowering variant with lilac flowers, strongly striped on the outside and with almost black anthers; the three style branches are long and red which makes them more reminiscent of those of the 'Saffron Group' of crocuses than of the 'Biflorus Group'. In the same part, Stephen Jury of Reading University gives an interesting account of *Urginea* (*Drimia*) *undulata*, a plant which is seldom seen in cultivation; to a bulb enthusiast it has undoubted attraction, with racemes of starry flowers in autumn followed by wavy-edged leaves. For the iris fanciers, some new ones from China (Yunnan Province) are described by Henry Noltie of Edinburgh Botanic Gardens; In the *Pseudoregelia* section there are two: *I. cuniculiformis* (meaning like a rabbit, because the standards are very prominently erect, as in an alert [3-eared!] rabbit), which is related to *I. goniocarpa* but much larger-flowered and more robust, and *I. dolichosiphon* subsp. *orientalis* ; the latter has smaller flowers (both overall spread of flowers and length of the tube) than the more westerly occurring subsp. *dolichosiphon* (W. Bhutan & SE Tibet). In subgenus *Nepalensis* - *I. decora* and its allies - Henry Noltie has distinguished a stemless variant of *I. colletii* as var. *acaulis* and has described another species as I. barbatula, on account of the bearded crest on the falls; this not unlike *I. colletii* in growth habit, having very erect, conspicuously ribbed leaves which taper gradually to a very pointed apex, and has near-stemless long-tubed flowers.

Of these, I have grown *I. colletii* var. *acaulis* for some years and this does very well, just as long as the thick fleshy roots are kept dry during the winter months while the plants are dormant; it is therefore grown in long pots and kept under the greenhouse bench, without water or heat, for the winter. Another one which I grow, possibly *I. cuniculiformis* or *I. sichuanensis*, I find less accommodating since it dislikes being both too dry or too wet during its winter rest period; in fact the section *Pseudoregelia* irises as a

* The New Plantsman is published quarterly and is obtainable from: P.O. Box 38, Ashford, Kent, TN25 6PR, U.K. Cost: £25 (British Isles), £29 (Elsewhere).

whole seem to be rather temperamental. As Henry Noltie implies, there are probably other irises yet to be described from this region but it is essential to study them as living plants since decisions cannot be made using old and often very badly pressed herbarium specimens, so he ends his account of these new irises with some hints on how to collect useful specimens.

Volume 2, part 4 of *The New Plantsman* has an account of the genus *Nomocharis* by Victoria Matthews. There is a key to the six species in cultivation with descriptions and discussions about them and their hybrids, followed by a tantalising piece devoted to the 'missing' one, *N. basilissa*. Cultivation is dealt with quite thoroughly and I will go through this carefully to see if there are any hints regarding their culture here in our relatively low-rainfall corner of Britain; they are not easily pleased and I suspect that mist nozzles in summer might be the answer, to raise the air humidity.

Stamps

A postcard received recently from our wandering friend John Whitehead was fun, not only to find out where in the world he had managed to get to next, but also because of the beautifully printed stamps. A set of two from the Marshall Islands (ours are number 3,012 in a 'limited edition' of 40,000!) show yellow *Paphiopedilum armeniacum* and red *Masdevallia veitchiana*, they are labelled 32 - probably cents, I imagine. Two of the Marshall Islands might ring bells in the memories of those of advancing years: Eniwetok and Bikini, the former for a long series of atomic bomb tests and the latter for similar tests, and a certain small garment.

Japan has a 350 (Yen?) stamp showing *Erythronium japonicum*, perhaps a bit redder than the ones which flower in our garden, but convincing enough and quite pleasant.

Wayne Roderick has sent a 29 cent US stamp illustrating a *Calochortus* and labelled the 'Sego Lily', a name usually applied to *C. nuttallii*, I believe, although also to *C. bruneaunis* in one book I have.

Coins

Well, we have flowers on stamps so why not on money as well!. John Ingham spotted an *Iris* on a shiny 1995 coin from Hungary, value 20 Forints. It is very well executed, representing I am quite sure, *I. aphylla*. Although only 17 mm high, one can see that it is a bearded iris with the inflorescence branched low down, and has leaves with conspicuous ribs; all are features of *I. aphylla*, which is a native Hungarian species.

From the Postbag

Mike Salmon of Jacklands Bridge, Tickenham, Avon, notable as a *Narcissus* specialist but grower of almost anything bulbous, has some comments on the flowering of autumn bulbs after the long hot period in late summer 1995 in the U.K.: 'The autumn blooming bulbs have been remarkable in the numbers and quality of their flowers. *Narcissus, Colchicum, Merendera, Scilla* and *Crocus* have been absolutely superb due no doubt to the splendid summer. An unusual feature has been the number of abnormal scapes and flowers which could well be attributed to the high temperatures. The temperature of the sand in my plunge beds frequently surpassed 100 deg. F during their dormancy. Many *Crocus* and *Colchicum* produced flowers with 4-10 petals, *Narcissus serotinus* and *elegans* with branched scapes and *Sternbergia* produced 6-8 flowers in an umbel on a shortly elevated peduncle (rather striking). It would be interesting to know if others have had similar occurrences.' He continues, 're. your comments on flower bud initiation in summer-growing bulbs. *Crinum* x *powellii* and *C. yemense* (*C. album*) have produced up to 4 consecutive scapes which is twice the number I usually get, which would indicate that buds are initiated during growth if conditions are favourable.'

On the second point raised by Mike, I am sure now that it is the case that, with summer growing bulbs, flower buds are formed during the current season's growth period, not during the winter rest period. There are some examples which actually prove it: *Tigridia pavonia* can be grown from seed to flowering in a few months without a dormant period, and so can *Lilium longiflorum*. Of his previous comments, the one which really surprises me concerns the *Sternbergia* with an umbel of flowers! I have heared of a twin-flowered *S. lutea*, but this is extraordinary.

Unfortunately, the article on *Nomocharis* by Victoria Matthews in *The New Plantsman* (see p. 13, this issue) does not help me to answer a query by Mr F. Larsen, a *Lilium* and *Nomocharis* enthusiast from Trondheim, Norway: 'What is *Nomocharis alpina*?' The name is absent from all the literature sources I have checked, so I have failed so far in this particular quest. There was a *Lilium alpinum*, described long ago, but that was from Hungary and could well be a synonym of *L. martagon*, so that does not help at all. Any ideas please? [Sorry to be a spoilsport, but maybe someone mis-read a badly-written *N. aperta*, which is how some of these unusual names arise!]

We have received a request for help from David Victor of Hockliffe, Bedfordshire, who has been sent some seeds of *Phalocallis coelestis* but says that he cannot trace the genus in any of the main encyclopaedias or

standard books. In this case, help is at hand: this member of the Iridaceae from South America (Uruguay /Brazil /Argentina) is better known as *Cypella plumbea* and you will find it in most literature under that name. The genus *Phallocallis* had been 'sunk' into *Cypella* but recently the Argentinian botanist P.F. Ravenna resurrected it as a genus in its own right, distinct from *Cypella*, and including the species *C. plumbea*. If this opinion is followed, the valid name for this species in *Phalocallis* is *coelestis* rather than *plumbea*. Since most reference works will have it as a *Cypella* I think that, to avoid any confusion, for the moment it might be best to refer to it as *Cypella plumbea* (*Phalocallis coelestis*). I am hopeful that sometime in the future, molecular studies ("genetic fingerprinting") will cast light on problems such as these, where at present the recognition or not of a genus is just a matter of opinion depending upon the level at which one draws a line and says 'this is a different genus'.

In case there are any biochemists reading this, with a bit a spare time on their hands, I am repeating a comment from Desmond Meikle, formerly a taxonomist at Kew, who has an interest in ...well, more or less anything to do with plants, their taxonomy, cultivation, history and nomenclature! On the subject of *Gloriosa* (sorry, that genus again), Desmond says: "I have had *Gloriosa superba* in cultivation here for many years, and despite comments to the contrary in the New R.H.S. Dictionary have never known it to be attacked by aphids, red spider or any other pest. It might provide the 'wonder' insecticide - a maybe produce welcome polyploids at the same time. I wrote to XXX* on the subject, but answer came there none". Now it has been brought to my attention, I must say that ours are trouble-free as well, even last year when most other things were crawling with pests.
[*Edited in the interests of peace & harmony in these troubled times - BM!]

Prompted by talk of rice grains in *Fritillaria*, Wayne Roderick has written from California to say that in his part of the world the squirrels have learned that rice grains are edible and in one place *F. affinis* has nearly all gone due to their activities; however, they are messy eaters and leave all the rice grains. Wayne says: "At first this was alright, but then they started on the two-year old ones and, the last time I stopped to see how the patch was, there were no blooming plants and only 4 or 5 small ones; it seems to be the same with *F. brandegei*, plus the Forest Service and their bulldozers. With one stand of *F. liliacea* it is gophers that have taken a liking to the bulbs. I have not seen many other places where the bulbs are relished but sometimes flowers and all the seed pods are 'fair game' to every creature."
[I think Wayne includes humans in this case-BM!]

In Seattle last year I met George Krasle, an enthusiast who mentioned the

fact that there are often interesting bulbs to be found in areas which are not normally associated with bulbous plants. In particular we discussed the somewhat overlooked bulbs of the Southeastern United States. George followed this up with a letter, drawing attention to specific examples: 'I am most enthusiastic about *Hymenocallis caroliniana* (*H. occidentalis*) but there are several other very interesting bulb species native to the Southeastern U.S. that should be hardy. Many of them are, of course, woodlanders, so would be appropriate in areas with too much shade for many of the common garden varieties. In addition to the above beautiful species, native to swampy to moist woods, there is another, *Hymenocallis crassifolia* from wetter places in the warmer coastal regions. Both species have showy flowers ..... *Trillium, Lilium, Erythronium, Iris* and *Yucca* need no further discussion, except for *Lilium michauxii* which has large flowers on a fairly small plant, and *L. catesbaei* which has unusual grassy foliage, and usually a single flower that points straight up and unusually-shaped tepals. Both of these might be useful in breeding (one for smaller plants, the other for flower orientation), but it's also interesting that this is the only genus that has species commemorating these two big botanical explorers of the region. Species that are gardenworthy, but lack the prestige of famous relatives include *Clintonia* spp., *Zephyranthes atamasco* (and its relatives), *Amianthium muscaetoxicum* , *Melanthium* , *Stenanthium* and the aroids (*Arisaema*, *Peltandra*). *Amianthium* has dense 5-10 cm racemes of white flowers that turn green by fruition, but don't wither. This, along with the 30-60 cm stalk may make them excellent cut flowers.' Many thanks, George, for drawing our attention to these; some of them will no doubt be of great interest to enthusiasts.

Melanthium

George Krasle's mention of *Melanthium* (see Postbag, this issue, p.15) reminded me of this close relative of *Veratrum*, and the fact that I have, for a long time, wanted to try growing it because of a long-standing interest in its more familiar relative. It has been suggested that *Melanthium* and *Veratrum* should be merged into one genus, although they do look rather different, not least because the former has narrow leaves and *Veratrum* species, certainly those in North America and Europe, have broad, pleated foliage; but there are narrow-leaved veratrums in eastern Asia. However, *Melanthium* has perianth segments which are abruptly narrowed to an obvious claw at the base, and the stamens are strongly incurved, so there are some distinguishing features. These two genera, together with *Stenathium*, *Amianthium*, *Zigadenus*, *Narthecium*, *Tofieldia*, *Xerophyllum*, *Helonias*, *Heloniopsis*, and several others, constitute the family Melanthia-

ceae if the Liliaceae is fragmented, as is the modern tendency. There are two Melanthiums which might well be worth trying; *M. virginicum*, the bunchflower, has linear-lanceolate leaves and stems up to 1.5 m in height carrying striking pyramidal inflorescences of many fragrant creamy flattish flowers, each about 1-2 cm in diameter; each of the six perianth segments has a pair of conspicuous nectaries at its base; it grows in boggy places, wet woods and meadows in the Eastern U.S., from New York southwards to Texas and Florida; *M. hybridum* has smaller flowers 1 cm or less in diameter and the nectaries on each segment are more or less joined together rather than appearing as a pair; also, the narrow claw of the segments is much longer in *M. hybridum*. It is also a native of the Eastern States, from Connecticut south to Georgia, and tends to grow in dryer situations, on wooded slopes and rocky places.

Helonias

And the mention of *Helonias*, the swamp pink, reminds me of a note seen in *Oryx*, the journal of Fauna & Flora International (formerly the Fauna & Flora Preservation Society). *Helonias bullata*, the only species in the genus, was listed in 1988 as being threatened, mainly due to habitat loss. Now, an area of wetland in New Jersey, which supports a large and vigorous population of this species, has been purchased and is included within the Edwin B. Forsythe National Wildlife Refuge.

Red-eyed Anomatheca (sorry, Freesia!-see BN12:10)

Also in George Krasle's letter was a note stimulated by Don Lee's letter (BN9:17) about the white *Freesia laxa* with a red blotch in the centre. George says that he obtained some seeds of this from the International Bulb Society as *Anomatheca laxa* 'Albamaculata', so it is possible that there is a valid cultivar name for this plant. It depends on the date when the name was published; under the *International Code of Nomenclature for Cultivated Plants* (see next item) it is inadmissible to have cultivar names in latinised form unless they were published before 1959.

ICNCP

There is now a new, completely revised issue of the *International Code of Nomenclature for Cultivated Plants*, the 6th edition. This is quite separate from, although is complementary to, the *ICBN* (the *Int. Code of Botanical Nomenclature*) which deals with the naming of botanical categories - genera, species etc. - but not garden selections such as cultivars. In the

new *ICNCP*, apart from the actual Rules, there is a very useful 'nomenclatural filter', a sort of key which is intended to enable the user to decide if a name is correct or not; there is a guide for the formation of new cultivar names, a resume of how Latin names of plants are constructed, checklists of cultivar names and a glossary of terms. This 192-page book is available from Quarterjack Publishing, Hampreston Manor, Wimborne, Dorset BH21 7LX, U.K. at £18.50 (+ £1.50 p.& p. In U.K., £2 In Europe & world surface mail, £3.50 air mail outside Europe, £4 air mail to Japan, Australia, New Zealand. Please mention BN if ordering).

Catalogues

From time to time I have a dip into old catalogues, for a variety of reasons, either researching some old cultivars, for a bit of fun or just to remind myself that there is not really so much that is new. In bulb lectures I have sometimes made the observation that a few hundred years ago the Ottoman Turks had developed not only Tulips to a high degree but also Hyacinths. From the small few-flowered spikes of the single wild form of *H. orientalis* in Turkey (and very nice it is, too) they had developed large doubles. Now, doubles have reappeared on the Dutch bulb scene in the last decade or so, just a few varieties, and I had assumed that this was a reappearance after some considerable length of time but, perusing the 1867-1868 catalogue of **E.H.Krelage & Son**, I had a great shock. Hyacinths were one of their great lines, but even so----! The first six pages are devoted to single ones, with the opening comment that the firm 'have omitted several inferior sorts from their Catalogue, as they wish to purify their collection as much as possible.' Following this there are 82 double red cultivars, 54 double white, 20 double yellow and 77 double blue; imagine holding the National Collection of Hyacinths, even the National Collection of Double Red Hyacinths wou'd cause a grey hair or two! Delving further - I won't even comment on Tulips - we find more unusual items. There are, surprisingly, a lot of Cape bulbs: many species of *Babiana*, *Ixia* and *Sparaxis*, 10 *Haemanthus* (some are *Scadoxus* or *Boophane*), *Gethyllis*, *Galaxia*, *Massonia*, and some South Americans such as *Gelasine*, *Conanthera* (as *Cummingia*) *trimaculata*, even *Tropaeolum azureum* is there and I thought that was a recent introduction; at just over £1 for 12 it seems a bargain, but that was probably a month's wages! It just goes to show how careful one must be about claiming something to be new to cultivation. I'd love to know what *Tricyrtis hirta* 'Floribus Nigris' is (was).

I have mentioned Sally and Tim Walker's **Southwestern Native Seeds** before and will do so again, since I find their list fascinating; the seed germinates very well and is inexpensive ($2.95 per packet regardless of

rarity). The reason for this mention concerns one particular monocot, however, added in as a Supplement to the 1995-96 catalogue. It is *Androstephium breviflorum* *, formerly a member of the Liliaceae, but I think will soon fall into a family which will include the North American genera *Brodiaea*, *Bloomeria*, *Triteleia*, *Dichelostemma* and their relatives; this seems a logical move since these umbellate lilies did not really fit in with Alliaceae or Amaryllidaceae, into which some botanists have placed this group of genera in the past. But to return to *Androstephium*, this is a very unusual bulb - or rather corm - in cultivation, in fact I have never seen a flowering plant of it, so I am hopeful that in a few years time this will be rectified. It has narrow, channeled basal leaves and an umbel of 3-12 funnel-shaped white to pale violet flowers 1.5-2 cm long. Inside the tube, the stamens, or rather their filaments, are fused together to form a sort of corona or crown having tooth-like projections between the anthers; the name *Androstephium* translates as 'stamen crown'. Extracting the information from the Walker's very compact but valuable key to data, the seeds offered were gathered in San Juan County, Utah in the high desert or grass-oakland regions between 2000 and 6500 ft where the frosts are moderate to heavy. Of course, there are many other items in the list, non-bulbous, which are far more showy and quite impossible to obtain elsewhere, but, 'bulbitis', as Chris Brickell once described it, endows the afflicted with the capability of homing in on all the bulbs in a catalogue in an instant, ignoring everything else, rather like a pig searching for truffles I suppose. Southwestern Native Seeds, Box 50503, Tucson, Arizona, AZ 85703, USA are to be congratulated on their 21st year.

* Don't all rush to order this particular item since it is already out of stock for this season; obviously the editor was not the only one to covet it.

Bookends

Anatomy of the Monocotyledons VIII, Iridaceae by Paula Rudall. Oxford University Press, Oxford 1995. £75.00. Even the hardest-bitten of Iridaceae enthusiasts might prefer to refer to this at the nearest botanical library rather than spend £75 of compost-and-grit money, but, when one considers the work that has gone into it, it is very reasonable, equivalent to a pot full of *Tecophilaea cyanocrocus*, for example. This is part of the ongoing programme of anatomical research into the monocotyledons at Kew and is described as being the most comprehensive source of data on the subject. To quote the advertising 'blurb', this book 'comprehensively describes the anatomy of the leaves and stems of the Iridaceae..... The book contains much original information and like earlier volumes in the series it will be an essential reference work for plant scientists and horticulturalists'.

Bulb for the Rock Garden by Jack Elliott. Batsford, London. £17.99. Dr Jack Elliott is one of Britain's best growers of hardy bulbs - and of many other unusual plants- so anything written by him is likely to contain valuable information; this latest book by him on the subject of the smaller bulbs does not disappoint. It is 160 pages long with a lot of integrated colour photos, which I much prefer as a method of presentation; these show plants in garden situations or in pots, which gives the book a good practical 'feel' about it. The book is arranged in seasonal chapters preceded by sections on general information, cultivation in different parts of the garden and propagation. As one would expect from this author, most of the information is based on personal experience and, since many of the more unusual & rare bulbs are included, this makes it a very valuable reference work for the enthusiast, and at a very reasonable price by today's standards.

A Review of Allium section Allium by B. Mathew was published in early January 1996; this can also be obtained from Kew at £21. In this particular section 114 species are recognised, there is a description of each, details of their distributions and habitats, and a guide to their identification is provided. There are additional chapters on their cytology by Margaret Johnson of Kew and Neriman Özhatay of Istanbul University, anatomy by Mary Gregory of Kew, and chemistry by Christine Williams and Jeffrey Harborne of Reading University. Many of the species are illustrated in colour showing close-up views of the umbels but, don't be fooled, this makes them look much more garden worthy than they really are; most of them have smallish umbels on long bare stems! Section Allium is that group of alliums containing the leek and garlic; the survey was funded by the International Board for Plant Genetic Resources (IBPGR) and its aim was to identify all those species of Allium which were in some way related to these crop plants. I give warning to anyone who tries to use the key to the 114 species; it nearly drove me mad writing it and I suspect that it will do the same for anyone trying to use it!

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Cheques payable to B.Mathew please.