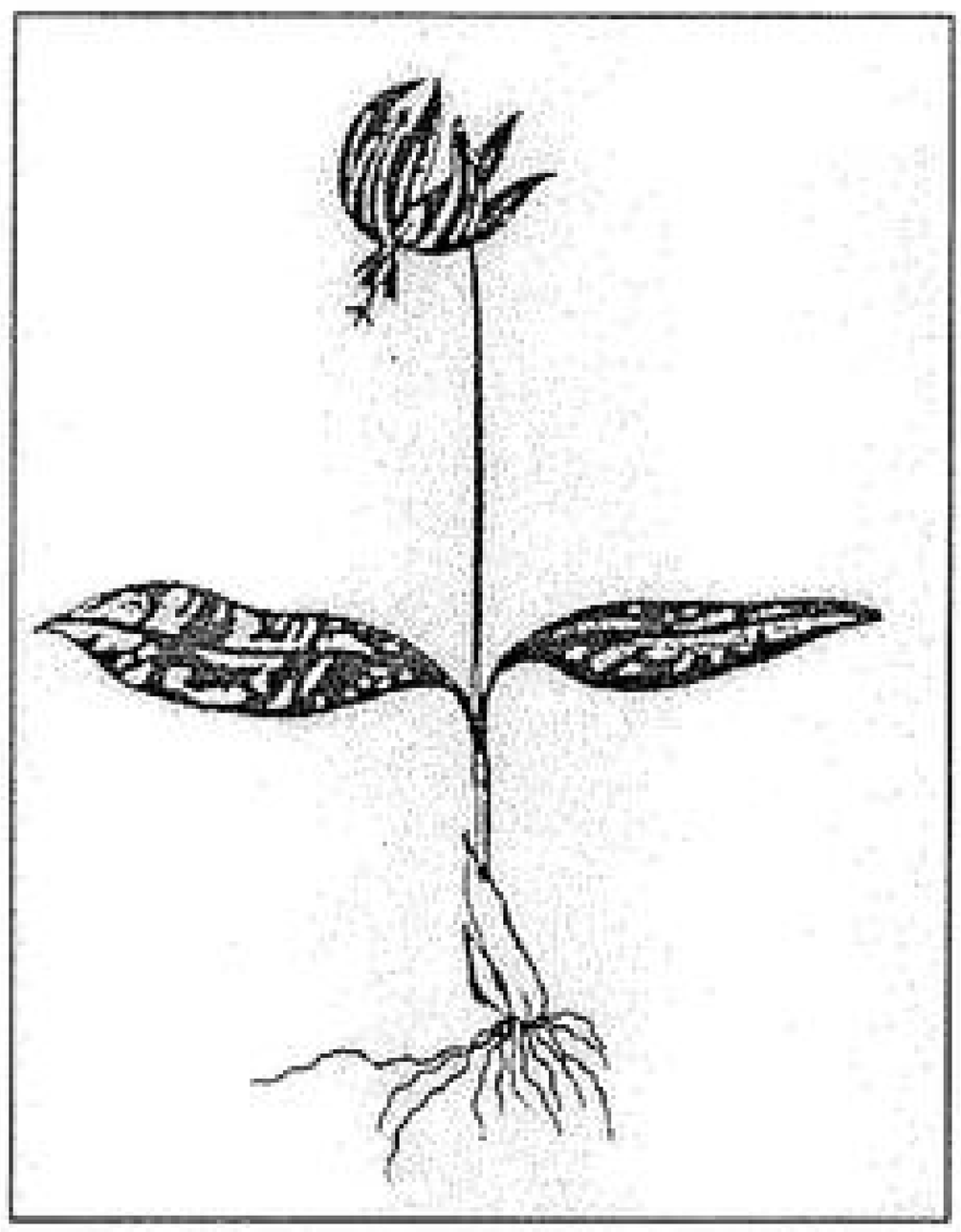
THE BULB

NEWSLETTER



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

IMPORTANT NOTICE!

The BN Team has decided to take a year's sabbatical in order to release some time for other projects. This issue will be the last for a while, so please do not send any subscriptions for next year. Those who have paid in advance for 2002 or beyond will be refunded. If we decide to continue after next year we will of course let you know.

In view of this break, we are publishing a cumulative index in this issue. Thanks go to Chris Jones for preparing this.

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Thank you for your support for the BN over the last 9 years. We hope you have enjoyed it as much as we have.

Brian & Margaret

Two excellent lilies - but what are they?

Some exciting *Lilium* introductions have been appearing in recent years, mostly of Chinese origin and often rather loosely identified; some not named at all and others with dubious names attached. One problem in sorting out their correct identities is that species were usually described (and often still are) on the basis of just one original wild collection with little idea of the natural variation. The question arises: are these newcomers just variants of species with which we are already familiar, or are they truly new introductions of species not previously seen in the living state in cultivation.

One of these has arrived under the name *Lilium sempervivoideum*, a

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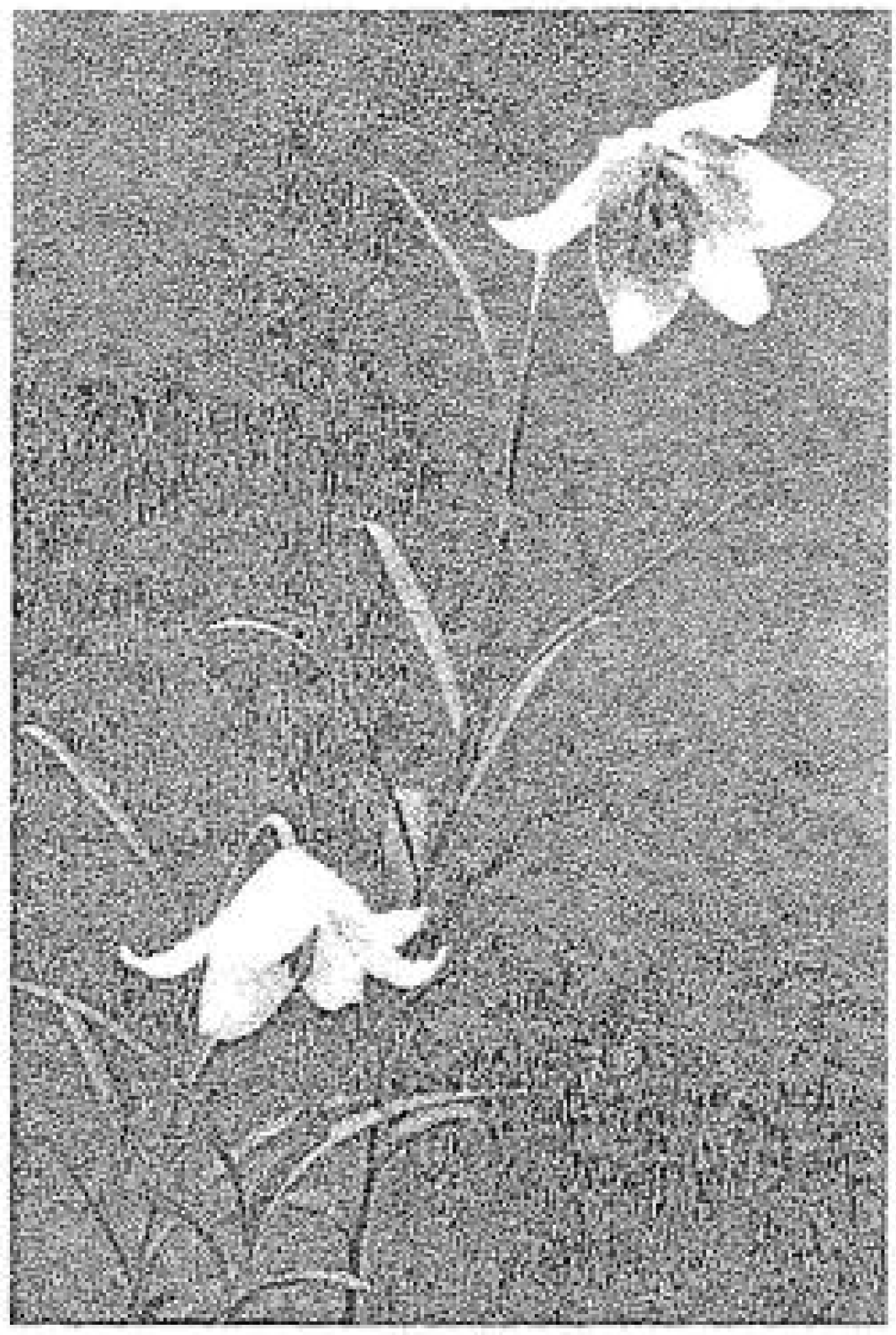
somewhat surprising epithet until one realises that the botanist who named it thus (Léveillé) was referring to the appearance of the dried, squashed bulb, with its tightly packed overlapping scales! It was described in 1915 from a specimen collected in Yunnan by E.E.Maire. The descriptions that are available indicate a small plant about 15 cm tall with narrow leaves only 1-3 mm wide and up to three drooping white flowers spotted or freckled inside with minute red or purple spots; the segments are about 3.5-4 cm long, so it is a relatively small flower. Some details of the plant that flowered in the BN garden do not tally exactly with the description - for example, our plant has rather few, well-spaced leaves on the stem whereas the 'original' *L. sempervivoideum* has many leaves crowded together. However, on the whole this seems to be the closest and it is reasonable to assume that there would be a certain amount of variation in the wild. Another possibility has to be considered: that this is a white form of another little-known species, *L. amoenum*, also described from Yunnan (see BN 23:3, 1998); however, this has pink flowers and much wider leaves, up to 8 mm. Until there is much more information about these lilies in the wild we cannot be sure whether there are two clearly separate species or one which is very variable in leaf, flower colour and in several other aspects.



The same comment might be applied to another small lily that has arrived from China in recent years and has been equated (by several people) with *L. rosthornii*. It is, in effect, a smaller version of the tall, orange-flowered *L. henryi*, with many narrow leaves packed closely together on the stem which is (in our plants) about 35-45 cm tall. The original specimen was collected in Sichuan province in 1891 by A. von Rosthorn and when later described in 1900 by Diels (from these dried specimens), it was suggested that it was related to *L. callosum* and *L. pumilum*, presumably on account of the 'martagon-type' flowers. However, it has a feature which is indicative of a

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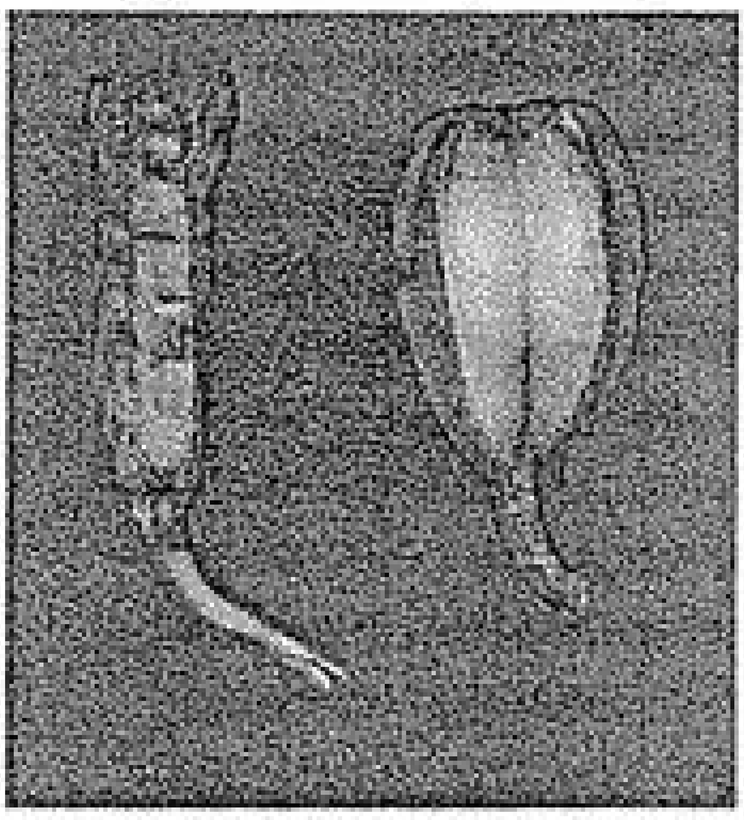
relationship with *L. henryi*: the upper stem leaves are much-reduced and bract-like, distinct in appearance from the lower 'proper' leaves, a characteristic shared with *L. henryi*. The flowers of the plants recently introduced are very like those of *L. henryi*, orange and covered with papillae on the lower part of the perianth segments; possibly the segments are rather narrower and more undulate at the edges than in the normal commercial *L. henryi*, but there is not a lot of difference.

Grown in pots In the BN garden, this ?*L. rosthornii* has produced several capsules that are distinct from those of *L. henryi*. Whether or not these are consistent differences it is impossible to say at present but on the basis of the capsules formed in the present (2001) season, one can say that those of *L.* ? *rosthornii* are straight-sided (below, left) and not very triangular in cross-section, so they are almost cylindrical; those of *L. henryi* (right of photo) are very noticeably triangular to the point of being almost winged at the angles, and are either ellipsoid (widest in the middle) or club-shaped (thicker towards the apex); they are also much fatter than those of the former. The seeds from these capsules are also different, those of *L.* ? *rosthornii* small and thick, those of *L. henryi* large and flat like most other lilies.



Requests

Continuing on the subject of lilies, a letter arrived from John David of Staines, Middlesex, containing a plea for information as to the possible whereabouts of two lilies, both of which seem to be elusive. He writes: "I have had some difficulty in acquiring the true *Lilium brownii*. I have bought small plants on two occasions purporting to be this species and both times they have proved to be *L. regale*. Sadly, confirmation of the identity is only possible when it flowers but the rust-brown anthers and the papillose nectaries are quite clear on the real plant, as I have seen on plants in flower in the Savill Gardens. I wrote to one nursery featured recently in The Garden from where I had bought a plant but received neither an apology nor even a reply. I hope that

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people can be made aware of this problem for I'm sure I am not alone in not wanting to pay over the odds for *L. regale*!"
[NB: *L. brownii* is currently listed by Nicole & Robert Pardo's nursery La Pivoine Bleue. Address: A Sechan Dessus, 32550 Montegut, France; tel/fax 05-62-65-63-56].

John's second 'desideratum' is for *Lilium* 'Sulphur Queen', a *L. sulphureum* hybrid which he notes is "most memorably illustrated as the frontispiece to E.B.Anderson's *Seven Gardens or Sixty Years of Gardening*." He asks "Is it still available or has it been superseded by more recent hybrids?" Before other subscribers reach for their copy of *The Plant Finder*, please note that John has already checked this and says it appears that this fine lily has never been listed in this useful work.

If anyone can shed light on the availability of these two lilies, please contact either the BN office or John David at 10 Pelham Court, Kingston Road, Staines, Middlesex TW18 1AL, UK.

The Prince of the Lilies

There are many notable lily specialists, past and present, who would qualify for this title, but the one referred to here is the very fine fellow on a fresco in Crete, dating from several thousand years ago. Earlier this year the BN team had the pleasure of viewing this wall painting - or rather a reproduction of it - at Knossos in Crete whilst on a 'botanist's holiday' (one can never get away from plants!) with Chris and Jeanette Brickell. We have seen and admired this famous illustration before, published in a book, and, just in passing had thought that the bulbs depicted looked more like irises than lilies. In the setting of Knossos it was conducive to meditation for a little longer. This really confirmed the very Iris-like appearance, possibly more like a Xiphium than any other, although no native irises of this sort occur on Crete. [In fact Crete is rather poor in *Iris* species considering the number that occur in neighbouring countries - there is only the

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'Juno' *I. planifolia*, *I. unguicularis* ssp. *cretensis* and the related genera *Gynandriris* and *Hermodactylus*].

However, the fact that had not occurred to us before was that the (?) Minoan artist who painted the plants was very astute and had included an important distinguishing feature between the *Liliaceae* and the *Iridaceae* - the position of the ovary. Quite clearly, the ovary is shown as a swelling just below (behind) the flower, so it is said to be 'inferior' and a defining characteristic of the whole Iris family; in lilies the ovary is carried within the flower, above the perianth segments (so is 'superior').

All this is, of course, not very important, as the title 'Prince of Lilies' is just a trivial name that has become attached to the work. 'Lily' is a word that has been used for many monocots, and Redouté's famous multi-volume *Les Liliacées* illustrates this point well This included lilies, irises, amaryllids, gingers and a host of other monocots. Nevertheless, with the modern concept of these monocot families, it does make one wince a little and we feel that he might be renamed 'The Prince of Irises' in order to acknowledge the botanical accuracy of that ancient illustrator!

The RHS Lily Group

The autumn 2001 Newsletter of the Lily Group has various interesting items of news. There is, for example, an offer of a CD Rom from Chris North, raiser of the now famous North Hybrids, giving information about his breeding programme, complete with some photographs. This is available to Lily Group members at £6 including postage; send cheques, payable to C. North, to Newmill of Knapp, Inchture, Perthshire, Scotland PH14 9SW.

Of course, to benefit from this and other offers and events such as the auction of bulbs, seed list and Group outings, it is necessary to join!

Subscription is £10 per year (there is a credit card facility for payment). Contact: Membership Sec. Rose Voelcker, Wolverton, West Meon, Petersfield, Hants GU32 1LQ, UK.

New Review of southern Romuleas

In *Adansonia* ser. 3, 23(1): 59-108(2001), John Manning and Peter Goldblatt have provided a new treatment of the genus *Romulea*, for the African species, south of the Sahara - primarily this means Southern Africa, although there are a few species in Tropical Africa. It is now 30 years since Miriam de Vos published her excellent monograph of the South African species, so it was time for a revision in view of the new species that have been discovered in the intervening period, and other more recent studies. This new review has enabled the authors to come up with a revised classification of the 76 species that are now recognised in sub-Saharan Africa. The

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genus is split into subgenera and sections and there is a key to these, followed by an identification key to the species. Each species is provided with a description and a discussion about relationships. There are 5 new species described: *R. rupestris*, a white-flowered species from the Northern Cape, in the Richtersveld and Kamiesberg regions, *R. maculata*, also white-flowered, from the Western Cape, *R. discifera*, a yellow-flowered one from the Bokkeveld Plateau, *R. lilacina* from the Cold Bokkeveld in the Western Cape with pale lilac flowers and *R. albiflora* with white, very long-tubed flowers from the Calvinia area. There are drawings of some of them and a colour plate showing several of these beautiful South African romuleas.

Galanthus hybrids in north-western Turkey

The hybrid between *Galanthus nivalis* and *G. plicatus* was named *G.* x *valentinei* by G. von Beck in 1894. In north-western (European) Turkey, there are populations of snowdrops that do not fit into either *G. nivalis* or *G. plicatus*. These plants were observed by Chris Brickell in 1975 and he later noted (in 1984) that, on the basis of their characteristics, they appeared to be hybrids between *G. nivalis* and *G. plicatus* subsp. *byzantinus*. However, they were subsequently described in 1988 by the Turkish botanist N. Zeybek as *G. plicatus* subsp. *subplicatus*. In 1995, Zeybek and Sauer presented a different view, that these were variants of *G. nivalis*, and they made the combination *G. nivalis* subsp. *subplicatus*.

In a paper in *Kew Bulletin* 56: 639-647 (2001), Aaron Davis, Andrew Byfield, Neriman Özhatay and Kerry Taylor present the facts and also conclude that this is a hybrid swarm. Since the plants are neither referable to *G. nivalis* or to *G. plicatus* subsp. *byzantinus* a name is required. The name *G.* x *valentinei* exists for all hybrids between the two species, so they can be called *G.* x *valentinei*; but in this case they suggest that a further name is needed in order to indicate that subsp. *byzantinus* is involved in the parentage. There is a concept, which has some following, that when two species hybridise, in effect a new species (or 'nothospecies') is created; and, in turn, if a subspecies is involved in hybridisation a new subspecies ('nothosubspecies') is formed. Using this concept, the authors are now referring to the hybrid swarms in north-western Turkey as *G.* x *valentinei* nothosubsp. *subplicatus*. The plants are, understandably, very variable in their features, wavering between the two parents. An identification key to the two species and their hybrid offspring is provided, there is a full description of the hybrid, some photographs showing the variation, and a distribution map.

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An Overlooked Journal

A wide number of sources are scanned for items for the BN, and we try to include all those journals that are likely to contain new discoveries and revisions of the more popular genera. John David has drawn our attention to a periodical from South Africa that we have seldom featured, although it really should be included for the sake of its stunning photographs alone. It is *Veld and Flora*, the Journal of the Botanical Society of South Africa*. Although this deals with the flora in general, take any issue off the shelf and there is almost certain to be some monocot interest, such is the importance of this plant group in Southern Africa.

For example, Volume 86, Part 1 for March 2000 has on the cover a very striking photo of *Nerine huttoniae*, a rare endemic of the Fish River area of the Eastern Cape, and inside there is an accompanying article about this species by Tony Dold and Dez Weeks.

The journal also has a review of *Sparaxis* by Peter Goldblatt and John Manning, with some interesting observations about the pollinating agents. The genus is divided into those species with regular flowers (e.g. *S. pillansii*, of which there is a photo, *S. tricolor*, *S. elegans*, etc.) and those with irregular, 2-lipped flowers like *S. auriculata* (also a photo); the latter group was formerly recognised as a separate genus, *Synnotia*. Those with regular, brightly coloured flowers, usually with a very dark contrasting eye in the centre, are mostly beetle pollinated, while the 2-lipped ones, usually with a coloured lower lip (as in many *Gladiolus*) are mostly bee pollinated.

Another photo shows *Tulbaghia acutiloba* ('red garlic') with its bright red corona, a plant of interest to those who practise traditional medicine in KwaZulu Natal. Not surprisingly, the local conservationists are concerned about the extent to which these wild plants are being exploited in the area.

Veld and Flora 87(2) for June 2001 has an article on *Scadoxus* (*Amaryllidaceae*) by Graham Duncan of Kirstenbosch, with photographs of the three Southern African species, *S. puniceus*, *S. membranaceus* and *S. multiflorus*. Barrie Low continues the amaryllid interest with an article on *Boophone haemanthoides*, with photos showing its arid, rocky habitat and the plant in full flower; it is leafless at flowering time, with deep red flower stems and pedicels.

Another issue, taken at random off the shelf (Vol. 86, part2), has the very striking *Bulbinella latifolia* on the cover, quite as good as any *Kniphofia*, and inside the fascinating 1-leaved *Lachenalia zebrina* with its dramatic zebra-striped leaves. There are photos also of the amaryllids *Brunsvigia orientalis* and *Crossyne guttata*, the latter another of the many species that have a large 'spoked' inflorescence

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acting as a tumbleweed for seed dispersal. An article in this issue explores the effect of fire on the 'fynbos' vegetation, showing the orange *Watsonia vanderspuyiae* from the Cedarberg area which is encouraged to flower after burning.

Other items noted by John David include, in Vol. 87(1), an article by Peter Goldblatt and John Manning on *Babiana* and, in 86(4), items on *Nerine masoniorum* and the newly discovered *Cyrtanthus wellandii.* Thanks go to John for drawing our attention to this omission from the pages of BN; it is a wonderful source of monocot illustrations and information.

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* The Botanical Society of South Africa, Private Bag X10 Newlands, 7725 South Africa. Membership for those outside South Africa is 200 Rand

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New African Amaryllids

In a recent issue of the South African journal *Bothalia* [Vol. 31, No. 1: 31-37 (2001)], the South African specialist in the *Amaryllidaceae* Dee Snijman has described a new species of *Cyrtanthus* and a new *Brunsvigia.*

The first of these, *Cyrtanthus debilis*, is from the Oudtshoorn area in the Outeniqua Nature Reserve where it grows in seasonally moist stony and sandy soil and flowers in summer between November and April - depending upon fire, followed by rain; the leaves usually appear later. The author notes that the bulbs go into a prolonged state of dormancy until fire sweeps through the area - this can be once every 12 to 18 years! It is a slender species up to 22 cm tall when in flower with 1-4 trumpet-shaped rose pink flowers 35-70 cm long.

The new *Brunsvigia* is *B. elandsmontana*, a species found in the Worcester region in the Elandsberg Private Nature Reserve at the low altitude of only about 100m. It has up to 18 flowers in the umbel which is 8-13 cm across, and these are bright pink and regular in shape whereas most brunsvigias have irregular-shaped flowers. It flowers in late summer/early autumn, between March and May. The leaves follow after flowering and lie flat on the ground, each up to 7 cm wide. It is said to be most like the fairly well-known *B. marginata*, but this has red flowers, a longer perianth tube and stamens that are longer than the perianth segments (shorter than the perianth in the new species); It also inhabits higher altitudes, up to 1200m. There are good drawings of both species, and the paper contains much information about such matters as their habitat, distribution, phenology and rarity.

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More on Tulipa sprengeri 'Trotter's Form'

Thanks to Elizabeth Parker-Jervis, we now have some fruiting specimens of *Tulipa sprengeri* 'Trotter's Form' (Dick Trotter was her father) and, even more generously, they still have their bulbs attached!

We featured this lovely, and very interesting, Turkish species in BN 34: 8-9. It is said that this variant is more robust than the 'normal' form and certainly this is a huge specimen with a stout stem 62 cm (just over 2 ft) long and seed pod 5 cm (2") long. Fortunately we hadn't given away all our dried ones (to a neighbour who does superb dried arrangements) so we immediately went out into the garden and collected a range of them (there were several hundreds this year) - dried stems with their seed pods still attached. The smallest of these was about 42 cm (17") tall, the slender stem only about half the diameter of Elizabeth's, but there were all sizes up to a robust 52 cm (21") with a capsule 5 cm long; presumably the size depends upon variables such as the richness of the soil, moisture availability, age of the bulb, etc.

Elizabeth also sent dried remains of the flowers and these too showed that the perianth segments were large in 'Trotter's Form' - 70 mm long x 22-24 mm wide - but, here again, we get an enormous range of variation of flower size in the garden. As an observation, even the most robust specimens, both Elizabeth's and ours have, in spite of their vigour, only a solitary flower on each stem whereas Bob Brown of Cotswold Garden Flowers (catalogue review in BN33:20) reports that his plants of this form have more than one flower per stem.

So, at present, nothing very conclusive - Elizabeth's 'Trotter's Form' was 10 cm taller than our tallest form (at the ripe fruiting stage), but maybe this is a measure of better growing conditions; the soil here in the BN garden is a very fine-textured, slightly acid silt with very poor drainage and low in nutrients (why did they choose to live there, BN subscribers will be asking themselves!). The next stage is to plant our newly acquired bulbs of 'Trotter's Form' in with the others to compare them.

Henning Christiansen

Sadly, Henning died on June 6th this year and we have lost a long-standing good friend and correspondent. He was a great bulb enthusiast and had many contacts around the world. His exchange seed list always included something of interest and his letters were sure to contain some item of interest, or a query that would inevitably lead to something for the BN. He and his wife Birthe lived in Portugal where they had a fine collection of bulbs. Henning also travelled widely in search of bulbs in the Mediterranean region and introduced several choice items, including white forms of *Crocus serotinus* subsp. *clusii* and subsp. *salzmannii*.

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Gladiolus in Transcaucasia

One of the latest pieces of work by Eleonora Gabrielian, a very prolific botanist on the subject of the flora of Armenia and the Caucasus, is on the genus *Gladiolus* in southern Transcaucasia. The work is published in *Bocconea* 13: 445-455 (2001). The species recognised are: *G. dzhavakheticus*, *G. caucasicus*, *G. tenuis*, *G. kotschyanus*, *G. hajastanicus*, *G. italicus*, *G. atroviolaceus*, *G. szovitsii* and *G. menitskyi*; *G. szovitsii* has two subspecies, ssp. *szovitsii* and ssp. *pseudopersicus*, as has *G. kotschyanus*: ssp. *kotschyanus* and ssp. *distichus*. The first of these species - *G. dzhavakheticus* - sounds rather interesting, described by Nora Gabrielian as having beautiful, widely open, almost regular dark purple flowers; it is known from only two localities in Georgia.

This is a very thorough paper, with explanatory drawings, of a taxonomically very difficult group of plants Two new species and two new subspecies are described here for the first time.

One of the many variants of Scilla peruviana

John David wrote recently to say that he had successfully germinated seeds of *Scilla peruviana* var. *venusta* (from Monocot Nursery) but that he could not find out any information about this variety. We enjoy this sort of query, as it means that there is a good excuse to delve into books and to check on some herbarium specimens, a favourite occupation!

When it comes to variations of this particular *Scilla* the best place to start is in Maire's *Flore de l'Afrique du Nord* Vol. 5 (1958). This *Flora* recognised a very large number of 'splits' of almost everything, and this variable species is no exception! Indeed, in the case of the 'Peruvian' squill it proved to be the right place to check - there are 18 variants listed here, as subspecies and varieties, in a range of colours and sizes.

This particular one, var. *venusta*, was originally described as a species, as *Caloscilla venusta*, in 1870. It falls into the group of species that have ciliate floral bracts (i.e. hairy on the margins), stems and leaves that are not tinted or spotted with purple, leaves more than 1.5 cm wide and many bright blue flowers. This variety is said to be common in Algeria and Morocco. There is an illustration of the plant with a huge number of flowers (well over 100) in a very broad head, so it should be quite dramatic. Mike Salmon, in his Monocot Nursery catalogue (see page 15, this issue of BN), describes the height when in flower as 45 cm, so it is clearly quite spectacular. The epithet *venusta* means beautiful so John should be on to something rather good.

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Tristagma - several new species

In *Onira Botanical Leaflets* Vol. 6, No. 3 (2001), P. F. Ravenna has described 7 new species of *Tristagma* (*Alliaceae*). For those who are unfamiliar with this name, these are South American bulbs of the *Nothoscordum-Ipheion* alliance; in fact Ravenna regards *Ipheion* as belonging to *Tristagma* and the very familiar *I. uniflorum* as *Tristagma uniflorum*. It will be interesting to see what the molecular biologists make of this group of genera - there is currently a study in progress at Kew.

Whatever the eventual status of the genera, these new species have been described in *Tristagma*. They are: *T. fragrans* (Chile), *T. lineatum* (Chile), *T. staminosum* (Chile), *T. atreucoense* (Argentina), *T. nahuelhuapinum* (Argentina,), *T. sociale* (Argentina) and *T. malalhuense* (Argentina).

In addition, Ravenna creates 3 sections within his concept of *Tristagma*: Section *Tristagma* (*T. nivale*, *T. ameghinoii* and *T. fragrans*), Section *Nivella* (*T. atreucoense*, *T. bivalve*, *T. spegazzinii*, *T. violaceum* and several other related species), and Section *Ipheion* (*T. uniflorum*, *T. tweedianum*, *T. recurvifolium* and *T. peregrinans*).

Another interesting comment in this paper is that he regards *Tristagma (Ipheion) sessile* (described from Chile) and *T. (Ipheion) recurvifolium* (described from Uruguay) as two distinct species - with this I certainly agree and have already dealt with the matter in some detail (see BN 21:3, 1998). The dwarf white autumn to winter-flowering 'Ipheion' which is around in cultivation as *I. sessile* should almost certainly be referred to as *Tristagma recurvifolium* (or *Ipheion recurvifolium*, pending further molecular studies). This excellent little plant was written up (as *I. sessile*), with a colour photo, in the *Bulletin of the Alpine Garden Society* 65, 4: 409-411(1997) when it was awarded a Preliminary Commendation at an RHS show.

Bookends

The much-anticipated ***Bulbs of North America*** has just arrived through the post and is clearly going to be a very pleasurable and informative read. Published by the North American Rock Garden Society and Timber Press, this exciting volume is dedicated to Wayne Roderick. This is very fitting as the unforgettable Wayne has done so much in furthering the study of western North American bulbs and in promoting their cultivation and enjoyment. This is a multi-author work, calling on the expertise of botanists and gardeners who are specialists in individual genera or families. The whole volume has been skillfully blended together and edited by Jane McGary, herself an ardent and knowledgeable bulb enthusiast.

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The book contains 11 main chapters: The genus *Allium*, *Amaryllidacaeae* of North America, The *Brodiaea* alliance, The genus *Calochortus*, The genus *Erythronium*, The genus *Fritillaria*, Irids of the Southeast, The genus *Lilium*, Bulbs of the Northwest, Bulbs of the Southwest and Bulbs of Eastern North America. Under each of these the species are described in a fairly informal, readable manner (as opposed to a dry, purely botanical description) and there are additional details of such matters as habitat, history, uses, conservation and, of course, cultivation. There are 101 colour photographs of very good quality, mostly showing fairly close portraits of the plants which is a useful approach for identification purposes, many of them in their native environments. It is particularly instructive when the type of terrain is also shown - for example a meadow of *Calochortus eurycarpus*, *Hymenocallis coronaria* in its stream-bed habitat and *Fritillaria glauca* amid serpentine rocks.

This is a splendid new addition to the range of books for bulb enthusiasts, and at a very reasonable price of $34.95 or £25.00. ISBN 0-88192-511-X. Available from Timber Press, The Haseltine Building, 133 S.W. Second Avenue, Suite 450, Portland, Oregon 97204, USA Tel: 503-227-2878; e-mail: orders@timberpress.com Also from Timber Press, 2-4 Station Road, Swavesey, Cambridge CB4 5QJ, UK Tel: 01954-232959; e-mail timberpressuk@btinernet.com There are special deals for NARGS members on this and other Timber books. For details contact the NARGS Book Service, RR 5, Box 5820, Mohnton, PA 19540, USA. Tel: 610-775-9084 or nargs@voicenet.com

Flowers of the Eastern Mediterranean by Ori Fragman, Ran Levy-Yamamori & Pambos Christodolou. Although a general book on the flowers of the eastern end of the Med. Region, this has, understandably, a lot of monocot interest. It has 458 pages with up to 4 colour plates on many of these, so it is well-illustrated with good quality, informative photographs. The 'bulbous' interest begins on the frontispiece with the weird purple-black and green spathes of *Biarum auraniticum*. [book reviews] 648 photos and these quaint plants are also represented by the chocolate-coloured B. pyrami and the related *Eminium spiculatum* (Eminiums have dissected leaves, not undivided as in *Biarum*]. This is a book intended as an identification guide for those who do not readily know plants on sight, so it is arranged in groups according to flower colours and whether the flowers are radial (symmetrical and equal in all directions, like an *Anemone* flower) or not radial (asymmetrical). This means that the monocots are spread through the book, even some

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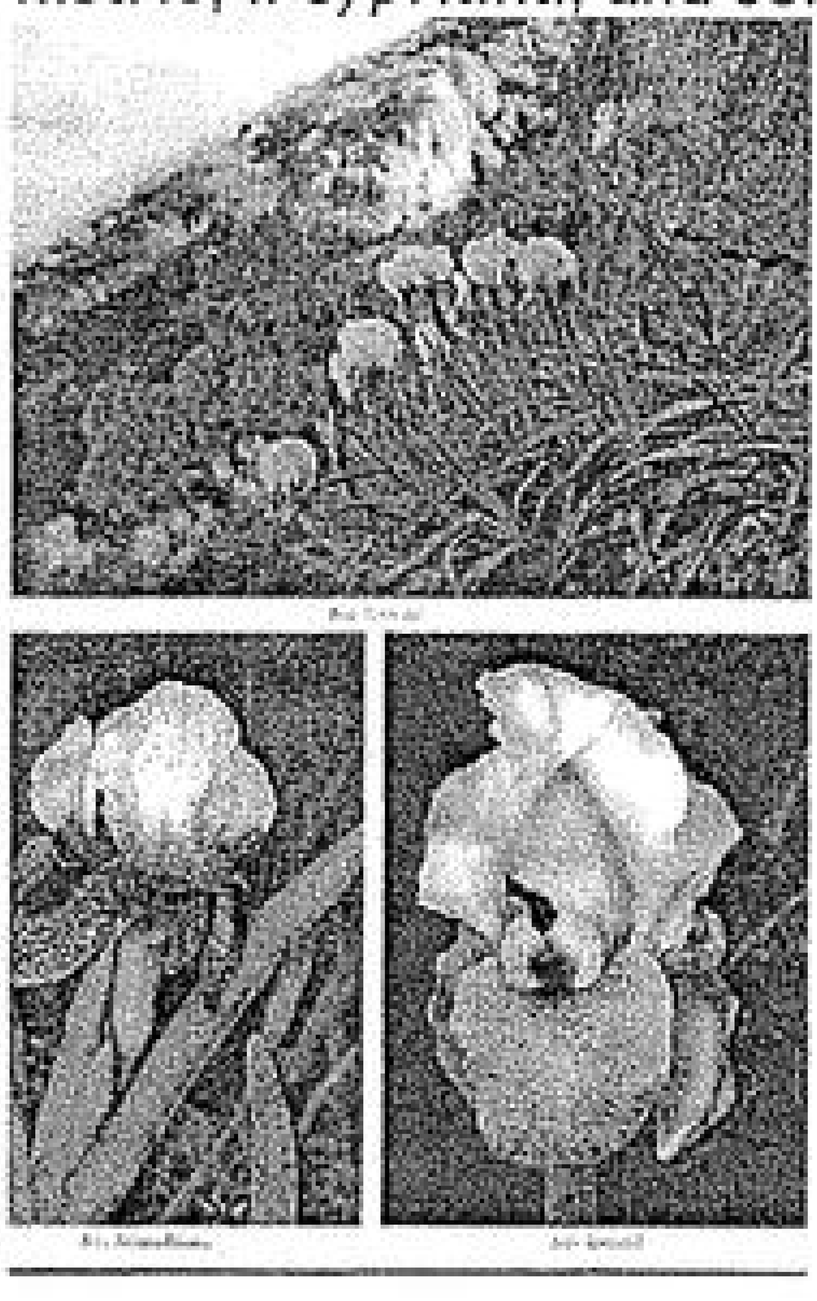
of the genera being split in cases where there are different flower colours - for example *Iris*. So, we have a wonderful array of irises, but distributed separately in three sections through the book: purple, blue and yellow. Species of interest here are *I. grant-duffii*, *I. vartanii*, *I. histrio*, *I. cypriana*, and some of the wonderful Oncocyclus iris of the region: *I. lortetii*, *I. bismarckiana*, *I. haynei*, *I. atropurpurea* and *I. hermona*.



The family *Hyacinthaceae* is well represented by *Hyacinthus orientalis*, *Hyacinthella millingenii*, *Muscari commutatum* and *M. parviflorum*, *Scilla cilicica*, *Bellevalia flexuosa*, *B. longipes* and *B. trifoliata*, *Tulipa agenensis* subsp. *sharonensis* (an amazing photo of an amazing patch!), *T. cypria*, *Sternbergia clusiana* and *S. colchiciflora*, *Pancratium* (*Vagaria*) *parviflorum*, lots of orchids, and so on. The region covered is Cyprus, S. Turkey, W. Syria, N & C. Israel and the Palestinian Territories, Lebanon and N. Jordan, but of course only a selection (530) of species from this huge area. It is published by Gantner Verlag K.G., ISBN 3-904144-27-8 and can be obtained from: Koeltz Scientific Books, P.O. Box 1360, D-61453 Königstein, Germany. Fax: (+49) 6174-937240, e-mail:koeltz@t-online.de.

Geophytic Pelargoniums by Charles Craib. Pelargoniums do not immediately come to mind when 'bulbs' are mentioned, but this new book by the South African bulb and succulent specialist Charles Craib deals with the 'geophytic' members of this large and diverse genus - that is, those with underground swollen storage organs, in this case the tuberous species constituting the section *Hoarea*.

This is a beautifully produced book, presenting an in-depth study of 26 species that the author has studied in the field. It is not a complete monograph as new species are still being discovered and some of those that have been named are very poorly known. This is largely due to their geophytic habit, disappearing below ground for long periods and easily overlooked; they also tend to produce leaves and flowers at different times (as in some autumn *Crocus* and *Colchicum* species) and this presents problems for field botanists as complete specimens with flowers and leaves are difficult to obtain. The book is very well illustrated by Gillian Condy with colour plates and drawings. These give a clear idea of the distinguishing characteristics of each

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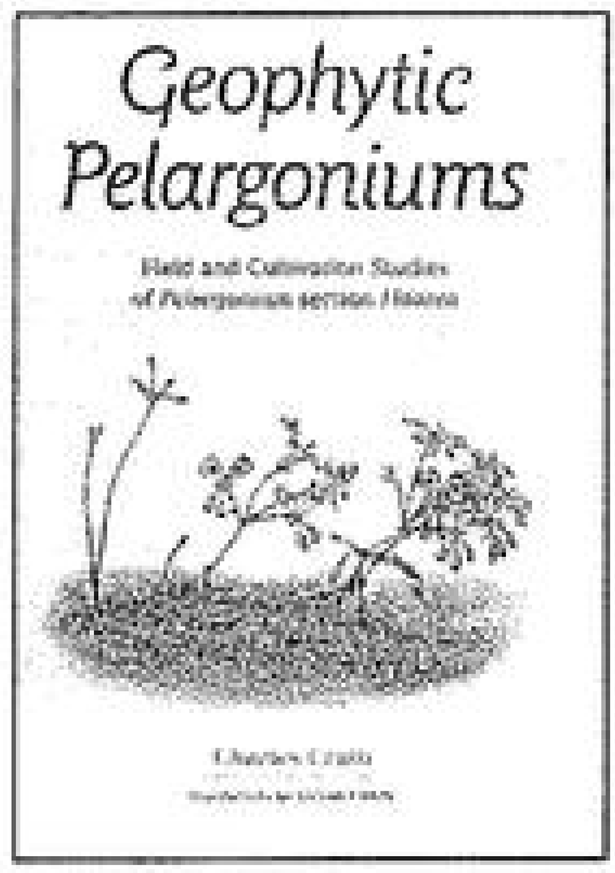
species. In some cases they are very 'monocot-ish in appearance and one might be forgiven for thinking that, for example, *Pelargonium trifoliolatum* looks more like a small amaryllid (such as a *Hessea* or *Nerine*) than a 'geranium'!

These fascinating plants are mostly from the winter-rainfall areas and, as such, would fit in with other subjects which are suitable for a dryish, frost-free Mediterranean bulb house. Cost: US$55 + US$14 postage. ISBN 1-919766-14-6 (this is the standard edition; there are also Sponsors' and Collectors' editions with different ISBN numbers). Published by: Umdaus Press, PO. Box 11059, Brooklyn 0011, South Africa. Tel. (27)-11-880-0273, e-mail: afick@iafrica.com



Flora of China. In addition to the existing multi-volume Chinese-language *Flora Reipublicae Popularis Sinicae*, Science Press Beijing and Missouri Botanical Garden are publishing an up-dated *Flora of China* in English This is a collaborative effort involving specialists from around the world; although based on the original work, the accounts of each family and genus have been reworked, taking in any new species that have been discovered and generally up-dating the taxonomic concepts. One monocot volume has now been published, Vol. 24, which usefully includes the *Liliaceae*, with keys and comprehensive descriptions of all the species recognised. *Flora of China* can be obtained through MBG Press Orders, Missouri Botanical Garden, P.O.Box 299, St Louis, Missouri 63166-0299. (Tel: (1) 314-577-9534. E-mail: mbgpress@mobot.org). The price of Vol. 24 is US$85 + US$4 postage within US, $8 international.

Catalogues

The catalogue of the French nursery **La Pivoine Bleue** may not, from its title, seem to have much to do with bulbs, but in fact the nursery of Nicole and Robert Pardo is very 'bulbous'. There is a good list of *Allium* spp. including some lesser-known ones such as the chives look-alike (but not related) *A. schmitzii*, white, densely-flowered *A. myrianthum*, dwarf autumnal Japanese *A. virgunculae* and the brown-red American *A. haematochiton*. It is nice to see *Anemone heldreichii*, like a smaller version of *A. blanda* in white with a blue tint outside. The excellent little *Hyacinthaceae* from Greece, *Bellevalia hyacinthoides* (syn. *Strangweia spicata*) is seldom seen in spite of being as good as any *Scilla* or *Muscari*. *Ipheion dialystemon*

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and *I. sellowianum* are here (very little difference in outward appearance), and the pink form of *I* (or *Tristagma*) *uniflorum*, 'Charlotte Bishop' and a good list of *Fritillaria* and *Iris*. In the latter genus there is the beautiful (but with fairly short-lived flowers) *Iris collettii*. *Lilium* is a particular speciality of the nursery and here we find several unusual species, including the very attractive one written up in BN 30:5 (2000), perhaps *L. majoense* or a white form of *L. ochraceum*. - whatever it is, it is a stunning plant. There are also *L. bakerianum* var *delavayi* and *L. brownii* (hopefully true - see pages 3-4!). I haven't seen *Vellozia* (or *Talbotia*) *elegans* for a while, the easiest and hardiest of a large group of primarily tropical monocots, in the family *Velloziaceae*. For peony-lovers (they are tuberous!), these take up the next 10 pages! **La Pivoine Bleue, A Sechan Dessus, 32550 Montegut, France. Tel/fax: (33)05-62-65-63-56**

Mike Salmon's **Monocot Nursery** is always guaranteed to have bulbs that you can find nowhere else. Although too late this year to obtain most of the items, there is a section for 'bulbs and plants for spring planting'. It includes such unusual species as *Crinum yemense*, *Hippeastrum equestre* var *album*, *Phaedranassa carmiolii*, *P. dubia* and *P. pearcei* (all very striking tender Amaryllids). Also one of the very dramatic 'climbing alstroemerias', *Bomarea kalbreyeri* with heads of tubular orange flowers. However, if tender bulbs are not your thing, it is never too soon to start on shopping lists for next season and this catalogue has a wealth of hardy bulbs for outdoors or the unheated glasshouse. Few nurseries can offer over 40 *Narcissus*, propagated from bulbs of known wild origin, or *Hannonia hesperidum* and *Pancratium foetidum* (North African Amaryllids), a range of colour variants of *Iris* (*Hermodactylus*) *tuberosa*, an excellent list of *Scilla* species and the seldom-seen *Urginea olivieri* and *U. undulata*. A feast! **Monocot Nursery, St. Michaels, Littleton, Somerton, Somerset TA11 6NT, England. Tel: (44)-01458-272356.**

Phillip Clayton's **Roseholme Nursery list** is aptly named 'Underground Lines'. It is too late to order for autumn planting but there is another due out in January; judging from this one it will be well worth obtaining. Here are just a few of the 'goodies', to give an idea of the range of rarities that are grown and offered: *Crocus* - 52 species & variations including *C. banaticus* 'Albus', *C. rujanensis*, *C. jessoppiae*, *C. danfordiae*, 15 *Anemone*, mostly the rhizomatous *A. nemorosa* & its relatives, *Erythronium dens-canis* var. *niveum*, *Colchicum troodii*, *Hyacinthella tabrizianus*, *Scilla reverchonii* and *S. vicentina*...and many others. **Roseholme farm, Howsham, Market Rasen, Lincs. LN7 6JZ. Tel: (44)01652-678661.**

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Kath Dryden's list, Manavlins 36, is as extraordinary as usual. It is is remarkable throughout but certain items are particularly unusual, for example *Biarum marmarisense* (a variation on the theme of *B. davisii*), *Crocus cancellatus* subsp. *pamphylicus* (the white-anthered, red stigma version from southern Turkey), the delightful small white *Eranthis pinnatifida*, *Erythronium montanum* (described as a challenge!) and *E. elegans*, the pink *Fritillaria alburyana* (also a challenge), *F. camtschatcensis alpina aurea* (another challenge!), lots of *Galanthus* including *G. fosteri* (which I find a challenge to keep for long), several *Iris* including the Juno *I. stenophylla* and the Oncocyclus *I. sprengeri* (also quite a challenge - it grows on the pumice slopes of old volcanoes. *Scilla rosenii* is yet another that stretches the growing skills (winter storage in the 'fridge is recommended, along with the *Erythronium montanum*). *Trillium* is one of the real specialities and here are 20 including the lovely little pink *T. hibbersonii* - but not one of the easiest [maybe there should be a separate list of these tricky bulbs called *The Manavlins Challenge*!]. Almost too late for this year, but always worth enquiring. **Mrs K. N. Dryden, 30 Sheering Lower Road, Sawbrigeworth, Herts. CM21 9LF, UK. Tel: (44)01279-722184; Fax: 01279-723709.**

Sally Walker's **Southwestern Native Seeds** catalogue always contains a long and interesting list of species from western North America, arranged State-by-State and giving lots of information in very succinct form. Although a general list and containing many non-bulbous plants, there are plenty for the monocot enthusiast: *Allium*, *Calochortus*, *Disporum*, *Echeandia* (like a yellow *Anthericum*), *Erythronium*, *Fritillaria*, *Hesperocallis undulata* (really difficult to grow, but we keep trying!), *Lilium*, *Miilla*, *Nemastylis*, *Sisyrinchium*, *Triteleia* and *Zephyranthes*, as well as some 'honorary bulbs' such as *Anemone tuberosa*. **Southwestern Native Seeds, Box 50503, Tucson, AZ 85703, USA.**

Almost out of space in this BN, but we really must draw attention to the seed list of **Jim & Jenny Archibald.** As always it is amazing in its content. Particularly important this time are the new seed collections from Iran: *Fritillaria gibbosa*, the Juno *Iris hymenospatha* subsp. *leptoneura* and other unidentified junos, the lovely yellowish-brown Oncocyclus *Iris meda*, clear yellow *I. urmiensis*, and several collections of *I. reticulata* forms. A huge number of goodies here - you need to take a week off to browse through this list! **Jim & Jenny Archibald, 'Bryn Collen', Ffostrasol, Llandysul, SA44 5SB, Wales.**

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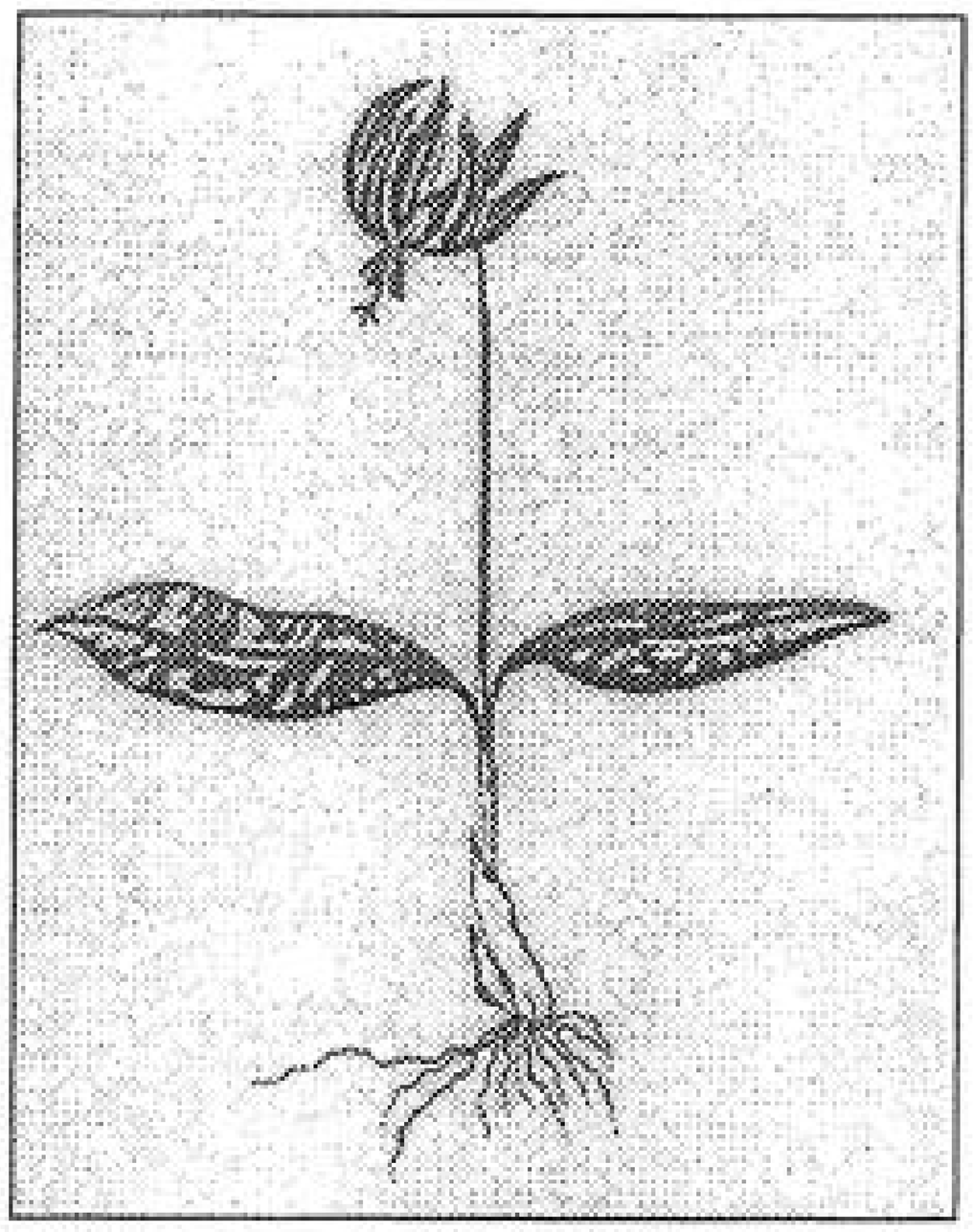
P.S.

HAPPY BULB-GROWING



We may see you in 2003

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