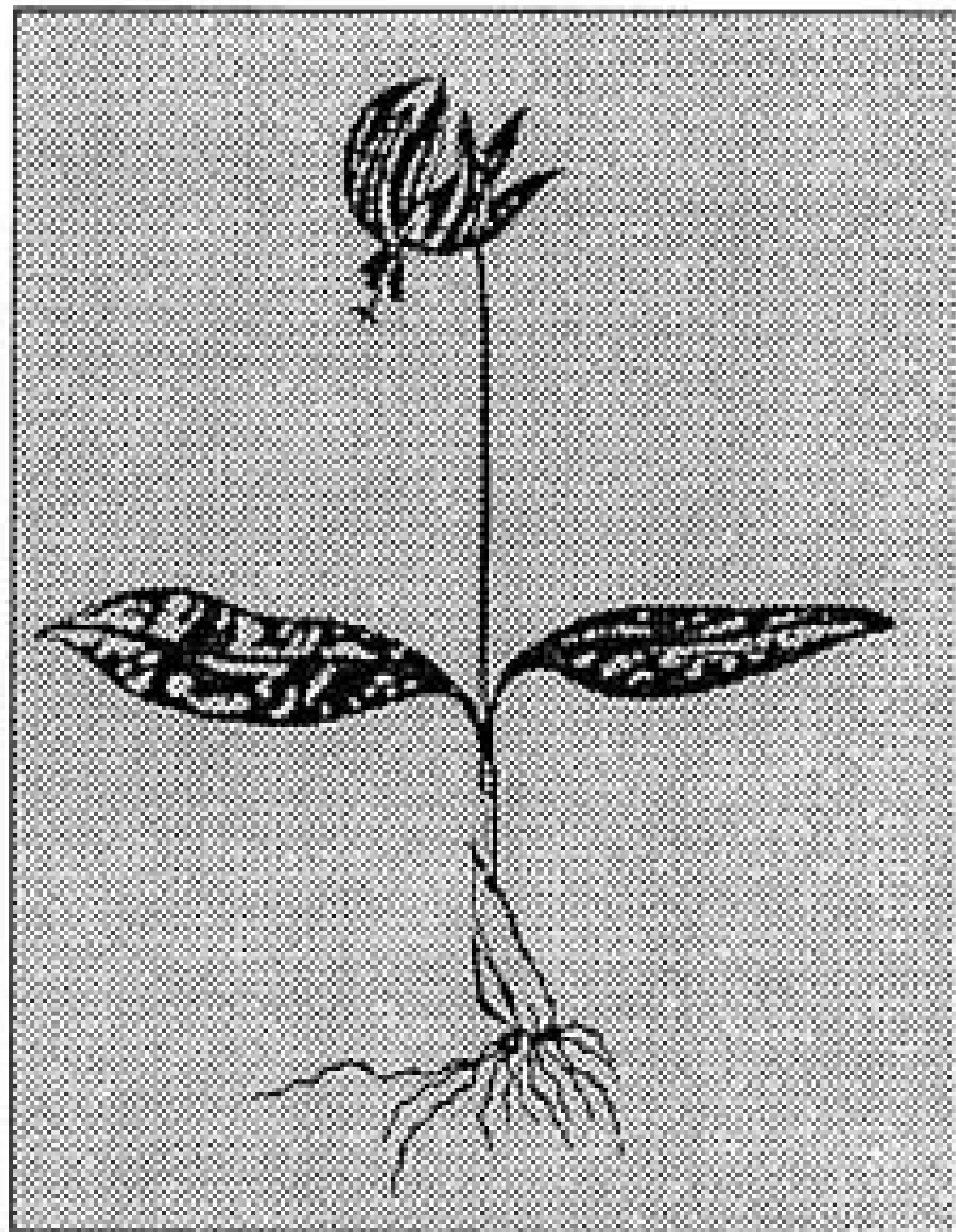


THE BULB
NEWSLETTER



Number 26

April-June

1999

The Bulb Newsletter No. 26

ISSN 1463-967X

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Stamps

We will not try to pretend that pineapples and palms are bulbs, but they are monocots. Malaysia has issued some pleasing stamps of *Ananas comosus*, the pineapple (50c) and *Elaeis guineensis*, the oil palm (20c); neither are Malaysia plants, of course; *Ananas* is South American and *Elaeis guineensis* is African, but they are plants of economic value and are widely cultivated in the tropics. Sally Walker (Southwestern Native Seeds) has sent some wildlife stamps issued in the United States under the title Nature of America; although the attractive trio on Sally's letter show *Magnolia grandiflora*, an owl and a polar bear, a lily will also be appearing in this series.

High profile for Hippeastrums in Surrey

The Royal Botanic Gardens at Kew have recently had a *Hippeastrum Celebration* - the first to be held there - which featured a display of a collection of these showiest of bulbs in the Princess of Wales Conservatory; there was an exhibition of paintings by Sue Mason and a photographic display by the Nerine and Amaryllid Society. Visitors were provided with a brochure to guide them on a 'Bulb Trail' around these exhibits plus a number of other areas containing interest bulbous plants - even a display of historical posters from the London Transport Museum showing, among others, bluebells, daffodils and crocuses at Kew. The National Council for the Conservation of Plants and Gardens* had a display, with some hippeastrums on sale, and their National Collection holder, Veronica Read, was involved in the organisation of the Celebration.

The latest issue of *Plant Heritage*, the journal of the NCCPG, has a detailed article by Veronica Read on *Hippeastrum* 'Germa', a small hybrid cultivar with pale creamy-yellow flowers, shading to yellow-green in the throat. The history of this cultivar is given (a 3-way hybrid of *H.evansiae*, *H.aglaiae* and *H.parodii*), its cultivation is discussed and there is a review of some other yellow cultivars.

* Details of the NCCPG can be obtained from the The Stable Courtyard, RHS Garden, Wisley, Woking, Surrey GU23 6QP, Tel: 01483-211465.

A New Tulip from Iran

Drs Farideh Matin and Mousa Iranshar have described* recently a species of *Tulipa* from Mazandaran province, '18 km to Marzan-abad before Pol-e Owshan, in rocky slopes, 800 m.' It has been named *T. wendelboi* after our (and many others people's) good friend and colleague Per Wendelbo who did so much to improve the knowledge of the flora of the region, and is still sadly missed. The new species is another of the red tulips that abound in the Middle East and Central Asia and which are, to say the least, highly confusing taxonomically. It is a low-growing species (stem 7-13 cm) with 6-7 grey-green leaves that are -at least the broader lower ones are - undulate at the margins; there is a solitary bowl-shaped flower about 3.5-4 cm long, red with a black/dark purple basal blotch inside, surrounded by a narrow yellow marginal zone. It is compared with *T. ulophylla*, a species described by Per himself in 1967. The differences noted are: dark purple anthers (yellow in *T. ulophylla*), shorter (7-10 mm long) filaments (12-15mm in *T. ulophylla*) and a differently-shaped dark basal blotch (notched at the apex in *T. wendelboi*, sharply-pointed in *T. ulophylla*). It is also observed that the number of leaves per bulb is 6-7 in the case of *T. wendelboi* and 4-6 in *T. ulophylla*, although this, and the fact that it is said to be a slightly shorter plant, is probably of little significance. The description is accompanied by a drawing by Mr. Mehranfard, artist at the Plant Pests and Diseases Research Institute in Iran.

Although we have had no opportunity of trying to grow this new species, we have had *T. ulophylla* growing in our Surrey garden for several years where it does well in a raised bed of gritty/sandy soil in full sun, flowering each year but not increasing - unlike the rare (in the wild) *T. sprengeri* which is seeding about in all situations from shade to full sun to the extent that in places it is almost a monoculture!

*The paper can be found in *Iranian Journal of Botany* 7(2): 227-229 (1998).

Another friend commemorated in a Tulip

It often happens that newly described species are not, in fact, newly discovered plants. It is frequently the case that herbarium specimens are collected and identified, to be stowed away in cupboards until a researcher takes a closer look at them, either confirming the original identification or determining the plant as something else; occasionally it is found that they represent an undescribed species. Sometimes it is living plants or seeds that are introduced and cultivated for a while under a wrong name (or just as 'sp.!!') before it is realised that they represent a different, or even unknown, species.

So it is with *Tulipa heweri* which has just been described* by L.W.D. van Raamsdonk, a tulip researcher at the Centre for Plant Breeding and Reproduction Research, Wageningen, The Netherlands. This is named after Prof. Tom Hewer whose plant-hunting expeditions in Iran and Afghanistan in the 1970s resulted in the introduction of many bulbous plants.

One of the most productive of these was with Christopher Grey-Wilson to Afghanistan in 1971, during which a species of *Tulipa* was collected under number *Grey-Wilson & Hewer* GWH 709. This had been identified as *T. kolpakowskiana* (which has now been included in *T. altaica*) and was cited as such in K.H.Rechinger, *Flora Iranica, Liliaceae* 2: 101(1990), but in van Raamsdonk's view this is incorrect, the plant actually representing an undescribed species. After studying the original herbarium specimens and cultivating the plant at Wageningen, he has come to the conclusion that the new species is rather more closely allied to the multi-flowered *T. praestans* than to *T. kolpakowskiana*. Like the former, *T. heweri* can have several (up to 5) flowers per stem, which is an unusual condition in the genus *Tulipa*.

The stated differences from *T. praestans* are:

"smaller and less densely ciliate (i.e. hairy margins) leaves, yellow or ochre flowers, yellow filaments, anthers and stigma, and a green ovary."

In contrast, *T. praestans* has wider, very ciliate leaves, red flowers, red filaments, black anthers, black ovary, red stigma and a red ovary. Grey-Wilson & Hewer 709 was collected in 1971 in northern Afghanistan, north of Kabul on the Salang Pass; other collections that have now been identified by van Raamsdonk as belonging to the same species are *P.Furse* 6618 (collected on 8 June 1964), *P.Furse* 8809, (May 1971) and *P.Furse* 7917 (April 1968); all of these Furse collections were also found on the Salang Pass.

In the classification of *Tulipa* by van Raamsdonk & de Vries** (an outline of which is provided in BN 14: 4-6, 1996), *Tulipa heweri* is placed in subgenus *Tulipa*, section *Eichleres*, series *Multiflorae*, together with *T. praestans*,

*The full paper - " A new species *Tulipa heweri* related to *T. praestans* (Liliaceae)" - can be found in the *Nordic Journal of Botany* 18(1): 51-55 (1998).

**Published in *Plant Systematics & Evolution* 195: 13-44 (1995).

Beware of These - by Brian Halliwell

Clearly warming to his theme of bulbs he loves to hate [see BN 25:13, 1999], Brian Halliwell has sent us in another item on bulbs which can be weedy, given the chance. Of course, this partly depends upon where you are gardening and some that are pests in one area will not survive in another. A good example is *Allium triquetrum* which is of weed proportions in the Isles of Scilly but which barely survives the winter here in our part of Surrey. Some Cape bulbs have become noxious weeds in parts of Australia but we cannot grow them outside. But, you are being warned - some bulbs can 'take off' and get out of hand, so if in doubt err on the side of caution and grow them in pots as a trial before releasing them into the open ground. Brian writes:

"Not all bulbs are desirable. Some can achieve weed proportions under favourable conditions even if for much of the year there is no aerial growth. Whenever a gardener is considering planting bulbs, there are some which are best omitted or at least treated with caution.

Winter flowering bulbs are highly desirable bringing colour to a garden in the darkest months of the year. This can result in the frequent planting of winter and spring flowering crocus. Not only crocophiles would hesitate to plant *Crocus tommasinianus*. Although flowering in February and introducing much wanted blooms before the end of winter, this species increases rapidly in almost any soil throughout the British Isles. The lavender flowers which are freely produced seem weather resistant. They also seem untouched by birds who may become bored when they see so many flowers and prefer to turn their attention to flowers of rarer and more expensive species. Although a rapid coloniser it is never a serious nuisance because its leaves are insubstantial. Flowers, though, en masse can dominate any bulb bed. The named cultivars seem to increase at an acceptable rate.

Another early flowerer is *Ipheion uniflorum* which has pale blue flowers. It has more substantial leaves than *Crocus tommasinianus* which are often troublesome in a crowded bulb bed. Named cultivars seem to have less vigour and some increase more slowly than a gardener would wish.

Grape hyacinths have never really caught the attention of bulb enthusiasts, mainly because of the behaviour of two species: *Muscari armeniacum* and *M. neglectum*. These increase rapidly by seed and bulbs and produce substantial clusters of leaves in autumn which are long lasting and die down untidily. They can be a pest in mixed bulb beds. England is famous for its bluebell woods; in no other country does European *Hyacinthoides non-scripta* produce blue floral carpets under deciduous trees in spring. This bulb can be encouraged in large

woodland gardens where it makes a delightful ground cover. Those with small gardens do not look favourably upon the English bluebell. It is a rapid coloniser, producing masses of fleshy leaves which swamp more desirable neighbours. No matter how deeply you dig, it seems impossible to locate and remove even a proportion of bulbs in an attempt at annihilation. The Spanish bluebell, *H. hispanica*, is more impressive with substantial flower spikes, larger blooms but of a paler blue. It is just as aggressive and in my opinion less graceful than the English bluebell. There is now a hybrid race between the two which is just as much of a nuisance.

Although summer flowering bulbs are fewer than spring bloomers, some can also become a nuisance. The genus *Allium* is probably the worst offender. Depending on soil type, water content and temperatures species can behave differently. Some which are admired and cosseted in one garden can achieve weed proportions in another. Beware all flowering onions which produce bulbils in their inflorescences, sometimes to the exclusion of flowers, e.g. *A. caeruleum*, *A. paradoxum* and *A. roseum*. Plants resulting from these aerial bulbils produce inflorescences with even fewer flowers.

Montbretia became an important garden plant at the end of the last century but was to fall out of fashion in the second decade of the present century; there has been a return to favour during the last 20 years. Cultivars have been selected and bred from *Crococsmia x crocosmiflora* which had itself achieved weed proportions in many gardens and has naturalised itself in the countryside. Annually older corms produce new ones, all of which remain alive in the soil although only some grow away in the following year. Even though their aerial parts can be seen for about 6 months of the year, their solid root masses soon choke out neighbouring plants, even strong growers.

Most bulbs already mentioned have some beauty in their flowers, even if in excess they can pall. This last bulb, though, has no redeeming qualities.

Nothoscordum gracile produces bulb clusters whose tiny rice-grain sized bulbils are easily detached when trying to dig them out and these quickly recolonise. These produce strap-shaped leaves which are perennial. It is all too easy to try and remove them by pulling them out; all that happens is that leaves come away in the hand leaving the bulb which soon restarts into growth. Stems which rise to about 12" carry umbels of unattractive dirty white flowers.

These are bulbs which have given me trouble. Readers of this article can probably add other troublesome species to the list."

Please don't all write at once - BM.

Nomenclator Alliorum

What? I hear you ask is this all about! Well, for *Allium* enthusiasts and researchers, this will be a useful addition to the literature since it sets out to list all the names in the genus *Allium* and there are well over a thousand - around half of them are synonyms. Compiled by Mary Gregory, in collaboration with R.Fritsch, N.Friesen, F.Khassanov & D. McNeal, this was initially put together by taking all the Flora accounts from the areas where alliums occur and listing all the included species and their major synonyms. Monographs were checked, and *Allium* researchers were consulted, in an effort to produce a complete list of names of the generally accepted species. Users will find that the information is presented in tabular form, the first column giving the name and its author; the next nine columns show, according to the various Floras, to which subgenus/section that species belongs and the final column indicates the correct name for those that are considered to be synonyms. The American species are dealt with in a separate table from those from Eurasia.

The result is a useful reference publication costing £21, obtainable through the Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB [contact John Harris. Tel: (00-44)-0181-332-5776].

***Veratrum woodii* switched to *Melanthium*? Maybe not!**

There has always been some debate as to whether the genera *Veratrum* and *Melanthium* (Liliaceae/Melanthiaceae) should be kept separate. In the opinion of Norlyn L. Bodkin they should and in view of this, one of the North American species - *V. woodii* - has to be regarded as a *Melanthium*. In the journal *Novon* 8: 332 (1998), the author formally publishes the transfer from *V. woodii* to *Melanthium woodii*.

Veratrum (Melanthium) woodii is from several of the south-eastern United States; although this gives the impression of it being a rather widespread plant it is said to be quite rare, in fact it is ranked as endangered in Florida and Georgia.

For those who are not familiar with *Melanthium*, the comments made in the paper might be of interest. Bodkin writes:

"In my revision of *Melanthium*, I maintained this genus as distinct from *Veratrum* on the basis of leaf size and shape, inflorescence characters, features of the tepal glands and claws, adnation [fusion] of stamens to tepals, and general habit of the plants."

[The revision referred to is: N.L.Bodkin, *A Revision of North American Melanthium*, Ph.D. Dissertation from the University of Maryland].

However, Wendy Zomlefer, Post-doctoral Associate at the University of Florida, Gainesville, has an alternative view and is currently regarding them as one genus, although she does comment that "...character analyses of *Veratrum-Melanthium* (and the related *Zigadenus* and *Stenanthium*) are needed to resolve the circumscription and relationships of these genera." [see The genera of Melanthiaceae in the Southeastern United States by Wendy B. Zomlefer in *Harvard Papers in Botany* 2:133-177 (1997).

So, it appears that the matter is not entirely settled, but Wendy Zomlefer is still studying the group in great detail and it is hoped that the definitive view will emerge from her work. Anyone wishing to assist could do so by supplying her with samples. She is seeking pieces of leaf or some flowers of any of the following: *V.album* (& its variants), *V.anticleoides*, *V.longibracteaetum*, *V.maackii* & related species, *V.mengtzeanum*, *V.micranthum*, *V.nigrum*, *V.stamineum*, *V.stenophyllum*, *V.taliense*, *V.insolutum*, *V.parviflorum* and *V.latifolium*. [Some of these will probably be unfamiliar, so my article on *Veratrum* in *The Plantsman* 11: 35-61 (1989) may prove helpful - BM].

Since all research work needs to be based on authentic plants, it is necessary to have a dried voucher specimen as well. If anyone can assist it is best to contact Wendy directly to ask for instructions as to how to prepare the samples before sending (it is a simple process!).

Address: Wendy B. Zomlefer, University of Florida Herbarium, 379 Dickinson Hall, P.O. Box 110575, Gainesville, Florida 32611-0575, USA. Tel:352-392-1767;Fax:352-846-2016;e-mail: wendyz@nabalu.flas.ufl.edu

Iranian Crocus Chromosome Counts

In a recent part of *Iranian Journal of Botany* 7(2): 180-188 (1998), H. Ebrahimzadeh and colleagues have written paper on chromosome studies into four of the *Crocus* species in Iran - the endemic *C.gilanicus*, *C.speciosus* subsp. *speciosus*, *C.cancellatus* subsp. *damascenus*, and the cultivated Saffron, *C.sativus*. The specimens of the first of these, a small white-flowered autumnal species related to *C.kotschyanus*, came from Siah-Bisheh in Mazanderan province; this proved to have a diploid number of $2n=24$. The *C. speciosus* sample from the Golestan forest region, also in northern Iran, towards Bojnoord and was shown to be $2n=12$. Two samples of *C.cancellatus* subsp. *damascenus* were counted and both had $2n=8$. Finally, the cultivated plants of *C. sativus* were triploids, with $2n=24$. These results compare favourably with previously reported chromosome counts for these species, which is very satisfactory - there is enough variation in crocuses without adding

any more! It is always interesting to see counts of the Saffron crocus; all of the samples counted at Kew in the *Crocus* studies of the 1970s suggested that the cultivated Saffron was all one clone - a sterile triploid plant which has presumably been distributed around by humans by vegetative propagation. It does vary a bit in its behaviour from place to place - for example in degree of leaf development at flowering time, but one would expect this as a result of long-time cultivation in different areas.

***Scillas bithynica* and look-alikes**

I was interested to see a note in the newsletter of the Botanical Society of the British Isles - *BSBI News* - of January 1999, a note by David Winstanley on *Scilla bithynica* which is naturalised at Warley Place, Miss Ellen Willmott's long derelict garden in Essex. Dr Winstanley notes that the garden is now a nature reserve and that in the checklist this little blue-flowered *Scilla* is identified as *S.italica*, or rather *Hyacinthoides italica* if one accepts that the bluebells should be separated from the squills. He sent bulbs to Austria to Franz Speta, an authority on *Scilla* and the plants were confirmed as being the Turkish/Bulgarian *S.bithynica*.

Over the years, this must be one of the most frequent bulbs that I have been sent for checking, often under the name of *Hyacinthoides (Scilla) italica*. In fact, it is very easy to see the difference with the naked eye; it is a case of checking the small bracts that subtend each of the flower stalks (pedicels), just where the pedicel joins the main flower stem. In the case of *H.italica* there are (as in all the other 'bluebells' of the genus *Hyacinthoides*) two bracts and they are about as long as the stalks themselves, long, narrow and tapering, and held upwards alongside the stalks. The bracts of *S.bithynica* are tiny by comparison, very much shorter than the stalks and have a piece ('spur') which is folded downwards away from the base of the pedicel. In the distance the two plants look very similar, especially when they are seeding about and forming large patches. I was fooled quite recently on seeing a blue haze in a garden in Devonshire into thinking it was yet another drift of *S.bithynica* but, on closer inspection, found it to be *H.italica* - so it pays not to try to be too smart!

Much more tricky is the difference between *S.bithynica* and the southern Greek *S.messenica* since they are much more alike. Here again, however, it is not too difficult once you know the differences. In this case I find it better to look at the overall shape of the inflorescence itself, very much conical in *S.bithynica* with the pedicels of the lower flowers longer than those of the upper ones, but in *S.messenica* it is more cylindrical in shape, the pedicels are more

uniform in length over the length of the raceme. There is also a difference in the bracts, although in this case a x 10 lens is needed. The bracts of *S.bithynica*, as mentioned above, have a down-turned portion or spur, and they are 2-3 mm long, but in the case of *S.messeniaca* they are only about 1 mm long and do not have this down-turned portion.

There is another 'difference' which has become very apparent to me when I grow them, and that concerns what I take to be a virus infection of *S.messeniaca*. Whenever I have planted it, whether it is from cultivated stock or bulbs of wild source, very rapidly they have acquired streaky patches on the leaves, whereas we have had *S.bithynica* (and *S.italica*) for many years without any such problems at all. Of course, it may not be a virus (I have not had the bulbs tested), but the visual effects suggest this is the case and as a result the appearance of the plants is spoilt, even if their vigour is unaffected.

There is a note on these two species in BN 14:1-2 (1996), giving a few more details.

More Scilla news

Recently, Phillip Clayton mentioned a dark-flowered *Scilla reverchonii*, which caused some interest because on no account could our clump of this be referred to as 'dark purple-blue', more of a mid lilac-blue. Phillip kindly sent some bulbs in flower and they are most definitely much darker than ours, so a welcome variation - one of the spin-off benefits of running this newsletter!

This Spanish species would be a *Hyacinthoides*, if (as in the item above) the bluebells are considered distinct from the squills; it has two bracts subtending each pedicel and the bulbs are of the near-solid 'bluebell type', rather than consisting of many concentric scales like the scillas. Our plants of it came from a collection made many years ago by D.W.Townsend in the mountains south of Cazorla, south-east Spain, which is where the species was described from in 1906. *Flora Europaea* is a bit dismissive of *H.reverchonii* and includes it under *H.italica* with the comment that it is like *italica* 'but with leaves more or less equalling the scape, lax-flowered raceme and deep blue perianth with erect segments. It has seldom been collected and requires further study.' Certainly the plants growing here have a much more lax raceme than that of *H.italica* which, in the case of those I have seen, is fairly dense and conical. The colour seems to vary considerably and I would not describe the perianth segments as erect (that is, as opposed to spreading horizontally) in our plants of *H. reverchonii*. The leaves are

evenly long-tapering all the way to the apex and overtop the flowers, so it does perhaps look a rather leafy plant. However, it is pleasant enough and makes a compact clump, flowering in mid-spring (April here). So, thank you for the darker variant, Phillip.

And More.....

Jerry Flintoff in Seattle has enquired about the validity of *Scilla siberica* var. *taurica*, an item in Jānis Rukšāns' catalogue. This necessitated turning to the *Flora of Turkey* vol. 8 and to Franz Speta's lengthy and very detailed account of the *Scilla* species of the eastern Mediterranean, published in the *Naturkundliches Jahrbuch der Stadt Linz* 25: 19-198 (1979) (published 1980).

Scilla siberica taurica was included in the catalogue of Barr & Son in 1861 but Speta regards it as a variant of his *S. ingridae* and has upheld it at varietal rank - *S. ingridae* var. *taurica*. This species was described by him in 1977 from the province of Maraş in central-southern Turkey, so it is from the Anti-Taurus rather than the Taurus range itself. It has the overall impression of a *S. siberica*, but with paler lavender blue flowers with a darker stripe along the centre of each perianth segment. There are up to 4 pendent widely bell-shaped flowers, so looking very much like the better known *S. siberica*, but this has only 1-2 flowers of the more intense blue colour we associate with the Siberian squill variants such as 'Spring Beauty'. More importantly, perhaps, is the fact that the seeds of *S. siberica* and its relatives have an appendage ('elaiosome' or 'caruncle') whereas the seeds of *S. ingridae* are completely lacking any such feature. In reading through Franz Speta's account of the species once more I noticed that I had seen this plant in 1965 and a dried specimen resides at Kew, collected at Bakirdağ, south-east of Kayseri at 2000 m near the melting snow, Mathew & Tomlinson 4099. Our original notes made in the field say *Scilla ?siberica taurica*, so it was not too many miles from being correct!

The variety *taurica*, now recognised by Speta as *S. ingridae* var. *taurica*, has up to 5 flowers per inflorescence, the flowers with sharp points to the tips of the perianth segments, and the colour is a darker lavender blue; the stamens have wine red pollen (grey-blue in var. *ingridae*).

Requests

Betty Clark from Ashburton, New Zealand is needing some help with the identification of her colchicums, many of which came from the collection of the late Mary Evans. Betty has the following species under collectors' numbers and wonders if anyone has grown these and identified them yet.

They are:

ABS 4362, HC 1051 and WC 2080. If anyone can help with field notes and/or identifications she would be most grateful. Please contact her at: 106 Elizabeth Street, Ashburton, New Zealand.

Both the BN editor and Desmond Meikle are keen to acquire *Scilla odorata*. This is, according to the treatment of *Scilla* in *Flora Europaea*, a relative of the spring squill *S. verna* but has the following differences [*S. verna* characters in brackets]:

'bulb (10-)15-20 mm diameter [10-15 mm]; leaves acute [obtuse], usually longer than the scape [shorter than to equal to scape]; inflorescence a short, 4- to 10-flowered raceme [2-12-flowered, corymbose]; lower bracts as long as or longer than pedicels [longer than pedicels]; flowers 'scented' [scentless]; perianth segments obtuse [subacute].'

As I remember it (having flowered it on a few occasions), the flowers were much more loosely arranged in the inflorescence, and the flowers were more cup-shaped than flattish. The distribution of *S.odorata* is given in *Flora Europaea* as southern Spain and southern Portugal, in sandy places.

Desmond Meikle and I both had it growing for a while, from some bulbs brought into the Herbarium at Kew, but it did not thrive [unlike *S.verna*], so we are both seeking a replacement. If anyone can help, please contact the BN office. There are usually spare bulbs of something unusual to offer in exchange.

An interesting variant of *Crocus chrysanthus*

Some years ago, the bulb firm of Potterton & Martin exhibited at one of the flower shows a pan of *Crocus chrysanthus* with black stigmas. This was quite striking, making a dark eye right in the centres of the of the otherwise orange-yellow flowers. Although the source of this particular plant was unknown, similar plants have now been seen in the wild in Turkey, as variants within populations rather than whole colonies. I saw a few myself last year in an area where there were many variations on the chrysanthus-biflorus theme from white to yellow to blue, striped and plain, with yellow or black anthers, and orange or black-tipped stigmas. A fascinating array of plants, presumably a hybrid swarm of two species and their variants.

Potterton & Martin have exhibited their plant again and it received a certificate of Preliminary Commendation (P.C.) on 16 February 1999 as *C. chrysanthus* 'Sunspot'.

A nice little poker

At one of the late summer shows of the Royal Horticultural Society the firm of Hopleys was exhibiting a very pleasant little *Kniphofia* species which was causing quite a bit of interest. It was *K. pauciflora* (meaning 'few-flowered') which is not the most promising of epithets but in fact it was rather a graceful plant compared with some of those with very dense flower spikes. Thinking that this might be something newly introduced I looked into it, only to find (as so often happens!) that it was featured in *Curtis's Botanical Magazine* in 1892, having been described and named by the Keeper of the Kew Herbarium, J.G. Baker (see BN 11:8), in 1885!

However, this does not make it any the less interesting and I hope that we shall be seeing more of it (but why on earth didn't I buy one at the time!). This is a South African species, known only from marshy places around Durban. The obvious place to turn to for information is L.E. Codd's monograph published in *Bothalia* Vol. 9, Parts 3 & 4 (1968).

Dr. Codd is also a bit dismissive of the plant:
'With its short stature and small lax inflorescences, this is one of



the least conspicuous members of the genus.' Which perhaps helps to explain why I liked it! Codd goes on to say that it is threatened in the wild as a result of urban development around Durban and was (in 1968) no longer to be found in the type locality at Clairmont; another locality where it was known had been drained and it had disappeared from there as well.

The plant on show in London had a loose spike of pale creamy-yellow flowers on a slender stem about 40 cm tall and narrow leaves about the same height as the spike. The description in the monograph, based on wild specimens, shows that the inflorescences can vary from 30-50 cm in height with the flowering part from 3 to 10 cm long. The flowers are narrow tubular-funnel shaped, 1.5-2 cm in length and about 5 mm in diameter at the mouth, with 6 short, spreading lobes.

Having failed to buy a plant I cannot comment on its cultivation, but the marshy habitat suggests that it will need plenty of moisture during the growing season but not too wet and soggy in the winter; these small species red-hot poker (and the yellow-hot ones) tend to rot off in the mild wet winters of Britain, so a site where the drainage is good would seem to be a good idea. That tricky combination of a water-retentive soil which is well drained! One of the best ways of achieving this is a humus-rich gritty mix, short of installing some system of controllable watering.

An exciting new Erythronium

It is not often that we have a handsome new *Erythronium* to report on but, even more exciting, is that it looks as if it will prove to be a good garden plant. We have had *E. taylori* growing in the garden here in Surrey for two years now and it flowered for the first time this year, a large white flower with a substantial yellow centre, held over plain green, slightly wavy-edged leaves. The first year it was grown in a pot for safety, just in case it proved to be 'miffy' like some of the high altitude species. However, it grew so well - it even increased vegetatively - that I decided to plant it out in a raised humus-rich bed where other erythroniums are doing well, and next to where 'Pagoda' is doing a little too well. It settled in there and in early April sported its first flower, so I am really hopeful that this is going to be as easy a plant to grow as *E. tuolumnense* which it rather resembles in all but flower colour. In fact it comes from the same general area as this yellow-flowered species, in the Tuolumne River Basin of the central Sierra Nevada, California. It was discovered by Dean Taylor on 23 April 1996 in the Stanislaus National Forest on metamorphic rock formations in forest of mixed conifer and oak at an altitude of

1340 m. This last fact is also good news for cultivators, for the high altitude species of *Erythronium* from western North America (like *E.klamathense*, *E.purpurascens* and *E.pusaterii*) are, in general, much more difficult to please than those from lower levels such as *E.tuolumnense*, *E.californicum*, *E.oregonum*, *E.revolutum* and *E.hendersonii*.

In a paper published in *Madrono* 44 (4): 359-363 (1997), James R. Shevock and Geraldine A. Allen have described this new species in considerable detail, providing data on the natural habitat, plant associations, distribution (at present known from only the original locality) and its taxonomic relationships. The fact that there is only one known population means that it is considered to be rare, and the authors note that in view of this the staff of the Stanislaus National Forest will manage the habitat in such a way as to conserve the plant.

Shevock and Allen consider it to be most closely allied to *E. pusaterii* but at the same time sharing some characteristics with *E. tuolumnense*; perhaps the most important of these characteristics for gardeners is the inclination of the bulbs to produce offsets so that it is likely to form clumps when growing well. The paper also includes a most useful key to the 6 *Erythronium* species that are known to occur in the Sierra Nevada.

These are:

E.multiscapoideum - the only mottled-leafed one in the Sierra Nevada; flowers white, with yellow centres.

E.tuolumnense - plain green leaves; yellow-flowered; inner perianth segments with swollen appendages at the base (inside); stamens with white filaments.

E.pluriflorum - plain green leaves; yellow-flowered, lacking swollen appendages at the base of the perianth segments; stamens with yellow, not white, filaments.

E.purpurascens - plain green leaves; flower white with yellow centre, perianth segments lacking appendages at the base.

E. pusaterii - plain green leaves; flower white with yellow centre, perianth segments with appendages at base, anthers yellow.

E. taylori - plain green leaves; flower white with yellow centre, perianth segments with appendages at base, anthers white. And, incidentally beloved of slugs & snails, but hardly a diagnostic character!

These are just some of the characteristics extracted for this short review of the paper; the authors give more details. There is also a full description accompanied by an excellent drawing of *E. taylori* by Linda Vorobik.

Sous-espèce de l'iris de Suze

This item came as a slight surprise, since the origin of *Iris susiana* is rather obscure - how could there be a new subspecies of it?

Iris susiana subsp. *caesari* is described by Marcel Barbero & Pierre Quézel in the *Bulletin de la Société Linnéenne de Provence* 46:95-97 (1995). The authors provide an account of the history of this fascinating *Oncocyclus* iris, and note that it has probably been cultivated in France since 1573, although now becoming scarce due to virus infection. However, they came across a nurseryman in the region of Toulon - César Hugues - who had some *Iris susiana* that had been in the family for three generations and was very vigorous and 'clean'. This stock appeared to them to be rather different from the usual *I. susiana*, so they felt justified in describing it as a subspecies. They provide a list of the differences from subsp. *susiana* which include a greater height and flower diameter, the outer perianth segments yellow-green on the outside, the beard hairs yellowish (not blackish), the standards orbicular and 10-12 cm diameter (longer than wide and only 7-8 cm across in subsp. *susiana*). There is also a discussion about an extra appendage carried within the spathe valves of this plant. They consider these may represent the remnants of a second, but aborted, flower; this is interesting, since the *Oncocyclus* irises all have one flower per stem. On the other hand, their close relatives the *Regelias* usually have two, and of course the bearded irises of section *Iris* often have two or even more flowers. I have not seen this plant so cannot make any comments, but one would like to be sure that it is not of hybrid origin since the irises of these three sections will hybridise fairly readily.

Those *Lycoris* again

Lycoris, and their cultivation, seem to have cropped up more frequently than anything in the BN - maybe because they do seem to be either a disaster or verging on the weedy, depending upon where you are and the treatment.

Wessel Marais has written from Cazillac in the Dordogne, France, to say that the bulbs of *L. radiata* that I [BM] gave him were too invasive under the greenhouse staging - and the flowers were too fleeting in the heat - that he dug them up and dumped them outside on a heap of decomposing oak leaves. For two years they have flowered well in that site and the flowers last very much longer. At the time of his writing the letter, in December 1998, there was an impressive mound of green leaves, still undamaged by the weather. Wessel suggests that the

success may be due to the rotting heap staying warmer than the surrounding soil; bulbs planted at the foot of a terrace wall have never flowered and have gradually disappeared.

I think there might be something in the rotting compost method of cultivation for some of these tender bulbs - another experiment for the future when time allows. Our own compost bin has been the source of some amusement over the years. We have had a splendid germination of date palms and avocados; in fact yesterday one of the resulting avocado plants which we had taken pity on and planted in the greenhouse had to be chopped down - the trunk was about as thick as my wrist and the top was threatening to remove the glass roof, not to mention the mealy bug infestation. So, a compost heap raised bed for tender bulbs is on the plans; after all, that was the recommended way of growing tuberose (*Polianthes tuberosa*) in former times when labour was cheap and gardeners came in groups of twenty or thirty.

A little bit of local conservation

The Times of 23 February 1999 reported that the British population of *Gagea bohemica* (Liliaceae), which is confined to a half-mile square in Wales, and which was 'discovered' as recently as 1975, is receiving some help from conservationists. Encroaching woodland of Scots pines and beech was threatening the tiny colony of this tiny plant, so more than 1500 trees have been felled in an effort to maintain the exposed habitat that it appears to require. The species is much more widespread in Europe and this isolated population is presumably a relic of a former much greater distribution.

Catalogues

Brent and Becky Heath, who used to run The Daffodil Mart have started a new venture, Brent & Becky's Bulbs and their first summer bulb catalogue has recently appeared. One theme they are promoting is the Victorian tropical look, so the catalogue contains, as well as some old favourites, quite a lot of tender 'bulbs' that can be bedded out for the summer, or grown in large containers. They have made a point of tracking down some of the less well-known cultivars of familiar genera such as *Canna* and in this case have also added some new dwarf introductions from breeder Kent Kelly; 'Black Knight' is not new but is one I haven't seen, with near-black foliage and scarlet flowers; 'Angel Pink' is a dwarf (to 2½feet), described as translucent peach and apricot gladiolus-like flowers and 'Apricot Dream' is about the same size with grey-green leaves and buff-salmon flowers with rose-coloured throats. There are 12 *Caladium* cultivars, chosen for

their spectacular aroid foliage; these come with the hint that they produce more leaves if you break out the growing point (if you have the nerve). For those of us in the cooler-summer regions these are better grown as container plants in the conservatory since the soil outside seldom reaches the recommended 60°F. The South American amaryllid *Chlidanthus fragrans* is not difficult to come by, but the challenge is how to keep it flowering from year to year - we get blooms the first year and have to admire the foliage from then on - and it is not that good! Several gingers are listed - four *Curcuma* spp., *Globba* and *Hedychium* - 5 different ones. They also have a particular favourite of mine, the South African summer-growing *Ornithogalum saundersiae* which produces a large head of creamy, blackish-centred flowers. Good luck from BN! **Brent & Becky's Bulbs, 7463 Heath Trail, Gloucester, Virginia 23061. Tel:804-693-3966; Fax:804-693-9436; e-mail www.brentandbeckysbulbs.com**

Jim Sutherland's **Ardfearn Plant Centre** has become renowned for the supply of high quality hardy plants from Inverness, not for bulbs in particular of course, but there are some in the catalogue including some which are not normally obtainable from recognised bulb nurseries. This is largely because they are not the sort of bulbs that can be harvested and sent out dry. Alliums, for instance - Jim has the spring/summer growers from the mountains, pink *A. amabile*, bright blue *A. kansuense* and the old favourite *A. narcissiflorum*, all plants for cool and not-too-dry growing conditions. Stretching the concept of 'bulb' perhaps, but with tubers or fleshy roots are the beautiful *Codonopsis*, also for cool places - listed are *C. bulleyana* (pale grey-blue) and *C. dicentrifolia* (large blue bells). For us here in the relatively dry, warm south-east of England it is frustratingly difficult to cultivate well the small Himalayan/Chinese lilies, but Jim has them listed - *L. lophophorum*, *L. nanum*, *L. nanum* var. *flavidum*, *L. oxypetalum*, and *L. mackliniae*; I expect we'll keep on trying - it is good support for the nursery profession! Not surprisingly, in view of the lilies, *Nomocharis* are here too - *N. aperta*, *N. farreri*, *N. mairei* - and the Chinese *Notholirion bulbiferum*. *Trillium grandiflorum* 'Flore Pleno' and dwarf pink *T. hibbersonii* are too more choice items on offer, but I was more surprised to find the yellow Turkish romulea, *R. crocea* (the only yellow species in the northern hemisphere) and *Androcymbium striatum*, an unusual relative of *Colchicum* with white, green-veined bracts around the flowers. Of course, this is primarily an 'alpine' nursery - there are 90 different primulas, several meconopsis including red *M. punicea*, cassiopes, etc..... **Ardfearn Nursery, Bunchrew, Inverness IV3 6RH. Tel: 01463-243250; Fax: 01463-711713. (Note: mail order season is October-March).**

At the other end of the U.K., Peter Chappell's **Spinners Garden** is, like the above, not noted especially for bulbs but in this case for a wide selection of woody plants and hardy perennials. However, it is always worth checking out these non-bulbous catalogues for they often contain unusual monocots. Not surprisingly, there are some good trilliums since the nursery holds one of the National (NCCPG) Collections. The Supplementary List of non-woody plants contains *T. albidum*, *T. angustipetalum*, *T. camschatcense*, *T. catesbyi*, *T. cuneatum*, *T. flexipes*, *T. kurabayashii*, *T. luteum*, *T. parviflorum*, *T. rugelii*, *T. sulcatum*, *T. undulatum*, *T. vaseyi* and *T. viridescens*! Just to mention a few more 'specials', the same list has several erythroniums, *Dierama argyreum* and *D. lepida*, the brilliant scarlet waterfall gladiolus from the South-western Cape, *Gladiolus cardinalis*, and a number of *Arisaema* species, while the main catalogue has the unusual trumpet daffodil *Narcissus nevadensis* which has up to 4 flowers in each umbel, the Madagascan *Gladiolus garnieri* and the Cretan *Arum idaeum* which has a white spathe and purple spadix. Spinners Garden, School Lane, Boldre, Lymington, Hampshire SO41 5QE. Tel: 01590-673347.

Maggie and I are still reeling from the sight of the thousands (literally, c. 20,000!) of nerines in flower at **Newchurch Nerines** on the Isle of Wight last October. Although the great majority are hybrids in which *N. sarniensis* has played a role, and are therefore frost tender, some species were there too, and some *N. bowdenii* forms and hybrids. A great many are listed in the catalogue, together with a history of how the collection has been built up and some notes on cultivation from Ken Hall, the enthusiastic proprietor. The 'greenhouse nerines' are dormant in summer and the bulbs are therefore sent out to customers in the period June-August. For those who wish to see this astonishing spectacle, the nursery is open every weekend during October when the nerines are likely to be at their best. **Newchurch Nerines, Springbank Nursery, Winford Road, Newchurch, Sandown, Isle of Wight PO36 0JX.** Tel: 01983-865444.

Bookends

The National Botanical Institute at Kirstenbosch, South Africa, is producing a useful range of booklets called the Kirstenbosch Gardening Series. I have seen several of these and am most impressed by the amount of information that is packed into them. The only 'bulbous' one I have seen to date - maybe it is the only one so far - is *Agapanthus* by Graham Duncan, Kirstenbosch's bulb man. These small, soft-back guides are deceptive in their appearance; the 32 pages appears to be insufficient to impart much

information about a genus of some 10 species, especially when the coverage sets out to include history, taxonomy, general morphology, distribution, habitat, medicinal uses, species descriptions, hybrids, cultivation, propagation, pest & diseases and bibliography! However, they do really only deal with the wild species and their variants; they do not attempt to include the myriad cultivars and there is a timely warning to anyone who tries to sort them out: 'cultivated Agapanthus are a horticultural taxonomists nightmare!' [Anyone interested in those should also obtain Wim Snoeijer's *Agapanthus - A Review* which was included in BN25:20 earlier this year]. The guide is very well illustrated with colour photographs of all the species and some of their variants, and we are even treated to one of Gillian Condy's excellent paintings depicting the rare *A. dyeri*. The cultivation section is surprisingly relevant to those gardening in the temperate northern hemisphere; the main problem for many of us is hardiness during our wet, cold winters. The Kirstenbosch Gardening Series is published by the National Botanical Garden, Private Bag X7, Claremont 7735, South Africa. Tel: (27) 21-762-9120; Fax: (27) 21-797-6570.

Plantas Altoandinas by Adriana Hoffmann, Flavia Liberona, Mélica Muñoz and John Watson, in collaboration with Mary Kalin Arroyo and Ana Rosa Flores, is a well-illustrated (by Andres Jullian) guide to the flora of the Chilean Andes, not confined to monocots of course, but full of interesting detail. Those with no Spanish will not find it a problem to use since the botanical descriptions, like those written in botanical Latin, are fairly easy to work out and are consistent in their layout. The colour plates are arranged in a familiar botanical sequence, starting with the Ranunculaceae and ending with the monocots. On the way through to the 'bulbs' at the end, one encounters many of the amazing plants for which the Chilean Andes are renowned - the extraordinary *Barneoudia* species (Ranunculaceae), dwarf showy *Calandrinia* spp. (Portulacaceae), *Nototriche* and *Cristaria* (Malvaceae), the sempervivoid violas...but I digress - on to the monocots, where we find a selection of the lovely small 'hippeastrums', *Rhodophiala* (some of which are wisely listed as 'sp.' - this is a group badly in need of study). The Iridaceae are mainly represented by *Olsynium* species [the sisyrinchiums with rush-like leaves - *O. junceum*, *O. scirpoideum*, *O. chrysochromum* etc.] and the Liliaceae/Alliaceae by *Leucocoryne* and *Tristagma*. And then there are the Alstroemerias; ten of these on two colour plates give us a good idea of the range of colour and habit of these fascinating plants. *Plantas Altoandinas* is published by: Fundación Claudio Gay, Av. Santa María No. 5542, Santiago, Chile. ISBN 956-7743-00-2.

The American Gardener's World of Bulbs by Judy Glattstein is not new but is one which has only just arrived in the BN library (thank you, Judy!). I do enjoy seeing bulb books that are written for gardeners in countries other than Britain. For one thing there is usually a range of photographs showing how bulbs will 'do' in other climates, often providing some new ideas worth trying out; also, as well as the old favourites, usually a few other subjects which tend to get left out of books that are aimed at European audiences. Here, in this very readable and well illustrated book we have a good mix of bulbs shown growing in nature and in gardens, both in North America and elsewhere - even at Kew, which is familiar territory - and these in turn are a mixture of portraits and garden shots of plant associations. The choice of bulbs is broken partly into seasonal chapters with others grouped into, for example: 'The Big Three' [Narcissus, Tulips and Hyacinths], and 'Offbeat bulbs: The Neglected Natives'. The photographs are excellent and illustrate how bulbs should look, not as they often are - chewed by slugs, caterpillars and covered in aphids! The shot of a clump of *Erythronium umbilicatum* in the author's garden with at least 30 flowers is really an extreme case of boasting, but why not! The American Gardener's World of Bulbs is published by Little, Brown & Co., ISBN 0-316-31593-1.

Las Monocotiledóneas Mexicana. Una Sinopsis Florística by Adolfo Espejo Serna & Ana Rosa López-Ferrari. Part VI. Dioscoreaceae to Nolinaceae. Although the two family names on the cover will not attract bulb growers, the contents will be more interesting since it contains Iridaceae, Liliaceae and some of the families formerly included in Liliaceae. It is a list of all the species recorded in Mexico, although without any descriptions or keys, the series being intended as a point of reference to all the monocots of the region prior to the preparation of a full Flora of Mexico later on. The information provided is: the name of the plant, the botanical authority for that name, and the literature reference to the first publication, the type locality and the location of the type specimen (i.e. which herbarium). There is also a letter code for the distribution within Mexico by State (e.g. HGO=Hidalgo). Enquiries: Consejo Nacional de la Flora de México, Apart. Postal 70-261, Delgación Coyoacán, 04510 Mexico.

The Bulb Newsletter is published quarterly and is obtainable from:
 B. & M. Mathew, 90 Foley Road, Claygate, Esher, Surrey KT10 0NB, U.K.
 Rates are as follows: [Airmail postage is included]
 • UK: £10 per year
 • Europe: Eurocheque or International Money Order for £12 per year
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