

No conspiracies it's all cock-ups

Needless to say, we got it all wrong. There we were denigrating the British botanical establishment, accusing it of a conspiracy to conceal the type-localities of newly described *Crocus* species, and it turns out that the type localities were never on the type herbarium sheets in the first place.

'Our sources reveal' that Kew's herbarium sheets of such species as *C. paschei*, *C. mathewii* and *C. kerdorffiorum* have no more details on them than are accessible to you or to us. On top of this, we are told that there are no herbarium sheets in Turkey. With no specimens and no type-localities for these newly described Turkish taxa, the Turkish botanists are not happy bunnies.

We are often labelled as 'politically incorrect' but we happen to think that much of what is currently called 'political correctness' is simply old-fashioned common courtesy. The silliness of linguistic eccentricities and extreme hypersensitivity is not to be encouraged but sensible consideration for other people most certainly is. All this apart from the scientific importance of this information which we discussed in our last newsletter.

Naively, we happen to think that knowledge of these type-sheets and type-localities is of paramount importance, the very bed-rock of all

plant nomenclature.

The manner in which these are treated varies greatly. At Concepcion in Chile, Dr. Marticorena kept all the type-sheets in a wire-cage, secured by a large padlock to which he had the key. At Edinburgh, Jim can remember a dust-covered, Forrest type-sheet sitting abandoned on top of a radiator for months and months. One day it was not there and Jim guessed it had either been tipped down the back of the radiator or removed by the cleaning staff.

Perhaps this was the fate of the type-sheet of *Muscari mcbeathianum*, of which, we have just been told, there is no specimen at Edinburgh, in spite of Kit Tan citing one as the type in her type-description. It is better not to ask what happened to the sheet of wild-collected material of this under our field number 6155, which she originally identified as *M. coeleste*. This could all, technically, invalidate the name but damage limitation measures will be put in to operation to avoid this.

Here were we thinking the worst that had happened was that the few wild-collected bulbs had been assassinated to make the dried type-specimen. There was no glorious immortality. Maybe they merely died a sad, lonely death on top of a radiator.

Trouble with a recalcitrant iris

Promises of a list from us during the first half of 1999 were not realised. Nor was the trip to South Africa. During the early months of 1999, Jenny had a great deal of trouble with one of her irises. As she has only one other, which has itself been recalcitrant in the past, we did not feel inclined to leave home during this period.

I write of the eyeball kind, of course, though several people we know would have been inclined to stay at home because of problems with the botanical sort. This is true 'iritis', a word we prefer to use in our household for Jenny's eye-condition, rather than making the unnecessary elision for the medical condition. Anyway, after over three months of hospital visits and copious sloshing with steroids, both her irises are now doing very well again, thank you.

**WE REVIEW THE MAILING LIST FOR CUSTOMERS OUTSIDE EUROPE ANNUALLY.
IF YOU DO NOT ORDER, YOU SHOULD WRITE TO ASK US TO SEND THE NEXT LIST**

Sorry for the late issue of this 1999 list :

Those of you who have dealt with us over the years will be well aware of the irregular appearance of our lists. We are always full of good intentions. Ideally this list should have been with you in July. By now you should have had yet another list dealing with more North American species and other European material. Perhaps one day, you will receive our lists regularly at just the right time for sowing the species included in them. We strive towards such perfection but never seem to reach it. Yes, we get the species included in our present list to you earlier than most of those who distribute seed but it is still not really early enough. The problem is that in summer, there always seems to be more to do than compile lists. Others who send us seed doubtless

suffer from similar pressures and it is definitely difficult to get all the seed together, listed out and packeted as promptly as we should wish. We have been far too self-indulgent this year and have spent too much time with the plants in the garden. We do apologise for the late date. Another problem of being late with one list, is that the next one follows too closely. We are well-advanced with a winter list, which we have to get to you before the end of 1999. If we do not, there will not be enough time to clear orders before we spend some time abroad in February. If we do not go away then, there will not be a list early in 2000, just as there was not one in the first half of 1999. And so it goes on. We do envy those organized people who get everything done efficiently and on time

but the garden has made some progress in 1999

Though we still get frustrated that our garden and growing facilities seem to advance so slowly, we have actually made considerable progress in the past year. Excellent paths are installed and much planting has been done. We have made great advances into the civilization of the wooded bog and streamside area. This is a little under an acre in size and ran with so much water in winter that we at times despaired of

doing much with it. Much tree-felling, ditching and path-making have started to transform it and we now feel very optimistic about how we can develop it further. With so much new garden and many other extended facilities for growing plants, we need more plants. So, this is a year of serious seed-sowing. We'll tell you about this another time but we do feel glad that we are in the seed-business.

Ordering from this list could not be easier

We shall accept your personal cheque in US \$, £ sterling or DM, with two qualifications : cheques in US \$ must be on a US bank account - charges on negotiating cheques on foreign accounts are very high in the USA (foreign banks can sometimes sell you a US \$ cheque drawn on one of their US branches) ; please do not send Eurocheques made out in US \$ - these are unfamiliar to the US banking system. Payments from France can cause problems. While we price in FF, we must ask French customers not to send cheques in FF and especially not to use cheques on 'La Poste'. These have proved very difficult to handle. A Eurocheque made out in £ sterling is excellent ; a Giro payment in sterling is used by many French customers - you can price in FF and have the current equivalent sent to us in £ sterling. FF cash sent by registered letter is also no problem. If fluctuations in exchange rates mean that it is advantageous to select a currency other than your own, please do so - it makes little difference to the operation of our business. Apart from

personal cheques, payments can be made in bank-notes for any of these currencies (please send by registered mail), a bank draft or International Money Order (in US \$ or £ sterling for these please). We do not operate a Giro account to enable direct transfers nor do we accept credit card payments at present. If remitting by sterling cheque, it is a great help both to you and to us, if you send us an open cheque, limited to the total value of your order. Obviously it cannot be made out for more than the limit but it can certainly be made out for less, avoiding annoying credits or refunds - you will only pay for what we have sent after the order is despatched. If you do not wish to do this, a list of some possible substitutes will be very helpful - we shall not use them unless we have to and, if we do, we always try to send more than the value of the items not supplied. We shall not pay in your cheque until after your order has been sent - it is in our interest, as well as yours, to complete your order as quickly as we can. Despatch will be prompt for orders placed from this list.

PLEASE HELP US BY PRINTING YOUR NAME & ADDRESS CLEARLY.

THERE IS NO CHARGE FOR POSTAGE, BY AIRMAIL IF ABROAD, ON SEEDS OR LISTS.

We continue to price in DM & French francs for the present Any further adjustments to align our pricing structure with the parity of these two currencies will be made as far as practicable. We shall, of course, price in euros in due course.

New customers please understand

There may be a delay of some weeks before you receive your order. Most orders come in during the first few weeks after we send out a list. We receive orders much faster than we can despatch them. Although almost all seed in this list is now packeted and ready for prompt despatch, there may still be some delay with early orders. If you feel your order is too long in arriving, check with your bank to find out if your cheque has been cashed - we do not pay in cheques until orders have been despatched. If it has been cashed, let us know immediately. The odd item is lost or delayed each year. In such an unlikely event, you will find us totally sympathetic. We are glad to say such problems are very rare. Postal services are, on the whole, reliable. We try to be just as reliable ourselves.

Our population reference numbers

The species in our lists are divided into five distinct geographical areas. Within these areas they run in alphabetical order. The numbers appearing before the names run in numerical order (which means we do not much like generic 'splitting'). These numbers refer to particular populations, mainly in the wild, though cultivated material without data is given a number also. Any wild collections which cannot be fully identified will be found under a five-digit field number. This number refers to a collection made by us on a particular date only. Both sets of numbers are permanent. The use of population references is to avoid seed from the same population of plants being distributed under a proliferation of field-numbers. In some instances, the same population of plants can be found in our own field-notes under a multitude of field-numbers, when it has been visited by us in different years. We also keep this reference number on our cultivated stocks raised from the original wild seed collections. When another collector is involved their name or field number is quoted in the data following the plant name.

Identified species from Europe, W Asia & N Africa have six-digit numbers here, though they have an 0. before them on our data-base and you may see this on a label. The seven-digit numbers start with a 1. for North America, 2. for South America, 3. for Southern Africa (S of the Sahara), 4. for Eastern Asia (E from a rough line from Afghanistan to the Tien Shan) and 5. for Australasia. Garden hybrids and selections (with which we are not much concerned) start with 6.

Cultivated seed, which has become increasingly evident in our lists, as we build up stocks raised from seed of wild origin, is marked with an asterisk (*). The field-data given in these cases refers to the parents. Almost all cultivated seed was collected in 1999. Most is hand-pollinated but it will not necessarily produce similar-looking seedlings. As our parent-stocks represent samples of variable wild populations, seedlings will show the variation present in the wild. We attempt to preserve the genetic diversity of the wild plants not to impose our concepts on them.

.....welcome to our October 1999 list

Difficult but not disastrous for bulbs at home in 1999

We hope that the repetition of an exceptionally warm February in 1999 does not signify a new weather pattern. It seriously upsets the metabolism of many of the summer-dormant plants as well as that of their owners. It was especially disconcerting in 1999 as the warmth was followed by some very cold weather indeed, though the late frosts and snow-falls did more damage to plants outside in the garden than to the bulbs under glass. On the whole, it was not a bad year for *Fritillaria* and *Narcissus* seed but many *Crocus* species once again aborted their developing capsules. Our efforts to establish cultivated breeding stocks raised from original wild seed collections of species which are both restricted in the wild & rare in cultivation continue to progress and, literally, to bear fruit. We

now have substantial, highly fertile stocks, consisting of a large number of clones, of such local species as *Fritillaria ehrhartii*, *Lilium pomponium*, *Muscari mcbeathianum* and *Nothoscordum ostenii*. Time is our limiting factor. While we have been able to devote much more of this to our garden and to cultivated plants in 1999, progress still seems painfully slow. The more seed we produce ourselves, the more time we have to spend growing the parents, hand-pollinating the flowers and collecting, cleaning and organizing the seed. While we have a wide range of cultivated seed this year, in 2000 we have two journeys abroad lined up already, so it will just not be possible to devote so much time to activities at home next season. Take advantage of what is on offer now.

Wild seed collections from the Tien Shan to the Sierra Nevada

In spite of our own inactivity in foreign fields during 1999, you will still find a large number of very exciting new wild collections distributed throughout this list. Over the years we have been involved with seed, our activities have developed and evolved into a team effort. At first, we were concerned almost solely with our own wild seed collections. When it became possible for us to grow plants from seed again ourselves, cultivated seed derived from these wild collections became increasingly significant. All through this a ran a thread of increasing collaboration with other collectors and growers. This year friends have sent seed from western North America, Spain, Italy, Greece, the Lebanon and Kazakhstan : seed of superlative species little-known in cultivation, like *Kumlienia hystricula* and *Hegemone lilacina* ; the first ever significant seed collections of plants like *Lewisia stebbinsii* and *Erythronium taylori*.

We think you will find plenty of interest in this list

In this early list, we mainly offer seeds from summer-dormant species, along with a few others which are best sown as soon after harvesting as possible. The first section in the present list covers the area of Europe, N Africa (N of the Sahara) and W Asia (W from Pakistan N through the Pamirs, the Tien Shan &

the Altai), a distinct floristic area. Nomenclature follows the basic floras, 'Flora Europaea', 'Flora of Turkey' & 'Flora Iranica' with a little editing and updating, if this is felt to be relevant & helpful to gardeners. Collections from the republics of the former USSR are usually listed under the names supplied.

The figure in brackets before the price code is the number of seeds per packet

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
B : \$3.00 ; £2.00 ; DM5,- ; FF18.- D : \$5.00 ; £3.50 ; DM9,- ; FF32.- F : \$9.00 ; £6.00 ; DM16,- ; FF55.-

Species from Europe, W Asia & N Africa :Seeds from Jim & Jenny Archibald

- 161.900 : ANEMONE PAVONINA** * Greece, Lakonia, between Areopoli & Githio. 100m. Edge of scrub. (The epitome of spring in Greece. Brilliant, pure-scarlet flowers with a white central zone (var. *ocellata*). Seed grown outside in Dorset, UK.) (20+) **B**
- 227.702 : BELLEVALIA DUBIA** * Italy, Sicily, Castel Mola near Taormina. (Ex an A. Edwards coll. The most striking of the European species in a selected form with particularly brilliant, ultramarine blue young flowers. Electric.) (15+) **C**
- 227.703 : BELLEVALIA DUBIA** * Italy, Calabria, near Monasterace. Ex an M. Salmon coll. (Similar S Italian form.) . (20+) **B**
- 227.705 : BELLEVALIA DUBIA** Greece, Messina, ESE of Kardamili, near Saidona. c.1000m. Under olives in rock-pockets on W-facing slope. D. Hoskins 98-9. (Collected out of flower but almost certainly this fine species.) (20+) **B**
- 227.770 : BELLEVALIA FORNICULATA** * Turkey, Agri, W of Eleskirt. 2300m. Hay meadows. (Outstanding with buds & flowers of penetrating turquoise-blue. Restricted to a few sites in the chilly Erzurum area, where its amazing blue mists the melt-water meadows. Choice but growable - maybe best outside in the UK. If in a pot, don't overdry it in summer.) (10+) **C**
- 227.840 : BELLEVALIA KURDISTANICA** * Turkey, Hakkari, Zab gorge at Bagisli. 1500m. Igneous scree. (10) **C**
- 227.900 : BELLEVALIA LONGIPES** * Turkey, Van, NNW of Baskale. 3000m. Open, stony slopes. (10) **C**
- 227.950 : BELLEVALIA LONGISTYLA** * Turkey, Van, E of Lake Van. 1800m. Heavy clay in moist, depression. . . . (10) **C**
- 227.952 : BELLEVALIA LONGISTYLA** * Turkey, Van. Ex Leep & Pasche 7044 (10) **C**
- 228.090 : BELLEVALIA PYCNANTHA** * No data. From E Turkey & adjacent areas of Iraq, Iran & Transcaucasia. Near *B. forniculata* but with heads of strangely crumpled bells in deep, inky blue-black. A plant of moist, montane meadows.) (15+) **B**
- 228.150 : BELLEVALIA ROMANA** * Greece, Ioanina, Mitsikeli. 860m. Ledges on S-facing, limestone cliff (15+) **B**
- 228.410 : BELLEVALIA WEBBIANA** * No data. N Italian species near *B. romana* but with deep purple-brown flowers.(20+) **B**
- 240.000 : BRIMEURA AMETHYSTINA** * France, Hautes-Pyrenees, Vallee d'Ossoue. 1500m. Stony clay over limestone. (More or less endemic to the Pyrenees. Like a dainty, miniature, brighter blue bluebell. Not seen as often as it should be.) . . . (20+) **A**
- 311.301 : COLCHICUM ATTICUM** (*Merendera attica*) * Turkey, Burdur, SSW of Tefenni. 1300m. Among scrub in clay over limestone. (Few linear leaves appear with dark-anthered white or pale pink flowers - in spring with this population.) . (10+) **B**
- 311.420 : COLCHICUM AUTUMNALE** * No data. A plant of European meadows. Pink flowers in early autumn (20+) **A**
- 311.501 : COLCHICUM BALANSAE** * Turkey, Icel, NE of Gulnar. 1200m. Pockets of red clay on limestone. (Some seed still left from this robust, S Turkish endemic. White to purple-pink flowers in autumn from amazingly long-necked corms.) . . (15+) **C**
- 311.600 : COLCHICUM BAYTOPIORUM** * Turkey, Antalya, Gulluk Da. 750m. Among limestone boulders in dense scrub. (Ex a type-locality coll. of this local, medium-sized species. Pink flowers in autumn, with narrow, recurving leaves later.) . (10+) **C**
- 311.702 : COLCHICUM BIVONAE** * Greece, Pieria, Oros Olimbos above Vrondou. 1000m. N-facing slopes. (One of the finest of the larger species, distributed from S Europe into W Turkey and accordingly variable. This is the form once called *C. bowlesianum* with heavily tessellated rosy purple, broadly bell-shaped flowers. Very satisfactory outside in the UK.) (20+) **B**
- 313.010 : COLCHICUM CORSICUM** * No data. A dwarf species from lowish altitudes in S Corsica. Lilac-pink flowers in autumn, followed by narrow, 10cm. high leaves. Reputedly uncommon in nature but easily grown & maintained in the UK. . . . (20+) **B**
- 314.754 : COLCHICUM KOTSCHYI** * Turkey, Gaziantep, W of Gaziantep. 850m. Openings among scrub on limestone. (Medium-sized, species, distributed E through Iraq & Iran. The white or pale-pink flowers often appear in late summer.) (20+) **C**
- 315.603 : COLCHICUM MACROPHYLLUM** Greece, Simi, NW of Simi to Emporios. 40m. Among scrub on N-facing limestone slope. M. Denney 607. (One of the most splendid of all *Colchicum* species, local in SW Turkey & on some of the adjacent E Aegean islands, such as Rhodes & Simi. Totally distinct from all others in its very large, pleated, *Veratrum*-like leaves. Usually with big purple-pink & white chequered flowers in autumn. Best in the bulb-frame or a warm, well-drained site in the UK.) . . . (15+) **C**
- 315.900 : COLCHICUM MONTANUM** (*Merendera montana*, *M. bulbocodium*) * Spain, Aragon, N of Canfranc-Estacion. 1300m. (Bright, purple-pink flowers open flat in early autumn before the few, narrow, dark leaves. Easy & increases well.) . . (20+) **B**
- 317.802 : COLCHICUM SPECIOSUM** Turkey, Rize, above Ikizdere. 1400m. Alpine meadows. N. Stevens coll. (A spectacular, robust species from the wet mountains along the Black Sea coast of NE Turkey across the Caucasus to the Caspian ranges of Iran. Huge, deep-pink goblets in autumn. The best one for outdoor cultivation in UK gardens and a parent of most hybrids.) (15+) **B**
- 318.802 : COLCHICUM VARIEGATUM** * Turkey, Antalya, N of Akseki. 1400-1600m. Limestone slopes with *Quercus*, *Pinus* or *Abies*. (An arresting and choice autumn-flowering species from SW Turkey & some adjacent E Aegean islands. Neat, thick-textured flowers with purple-black anthers & precise chequering in rich red-purple and off-white. Tidy, undulate leaves.) (8) **D**

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331.950 : CORYDALIS NOBILIS * No data. A sturdy, long-lived, tap-rooted perennial about 50cm. high and rated by Liden & Zetterlund in their monograph as "probably the most conspicuous & eye-catching species in the genus." Dense heads of yellow, black-tipped flowers rise above the lush, deeply divided, glaucous foliage in late spring & by late summer the whole plant is dormant. An extremely hardy Siberian plant, distributed from the Altai to the Tien Shan & naturalized in Sweden, this is suited to severe continental climates. Seldom seen in UK gardens but perfectly growable. Seedlings will not progress beyond the cotyledon stage in the first season. No problems with dried seed. This 1999 seed should give excellent germination if sown promptly. . (10+) C

Crocus : 1999 collections from Spain, Italy & Lebanon

To generalise, which we do not usually like to do, *Crocus* is the most difficult in cultivation, among the main genera of 'bulbs' we list. Because a few crocuses are familiar garden plants in Europe, many gardeners assume all are easy and turn to the imagined challenges of *Fritillaria* or some of the *Narcissus* spp. Many of the 'species' listed cheaply in less specialised bulb catalogues are of hybrid origin or are clones, often untypical of the species as a whole & selected for mass production. If you want good reliable garden-plants, these are for you. For the specialist grower, we are attempting to build up basic fertile parent-stocks, raised from wild material where possible, as a source of hand-pollinated seeds for our lists. This is less easy with *Crocus* than with most other genera, as they have few seeds in a capsule & maintaining quite a large number of corms is necessary. Seed-collection is also quite critical &

troublesome. Seed of most will always be expensive & in short supply. In 1999, a sudden warm spring followed by a very cold period resulted in another poor season for cultivated seed here.

Seed-collection in the wild is also just as unpredictable. Enthusiasts will be aware that such collections are often a 'once in a lifetime' opportunity. This season we have some exciting wild material from Italy, Spain & the Lebanon.

Of those listed currently, we could recommend only *C. banaticus*, *C. biflorus* subsp. *pulchricolor*, *C. flavus*, *C. kotschyamus* subsp. *kotschyamus* & *C. veluchensis* for the open garden in the UK. Among the more reliable ones for the bulb-frame or alpine-house are *C. adanensis*, *C. asumaniae*, *C. goulimyi*, *C. malyi* & *C. niveus*. Standard reference for the genus is Brian Mathew's model monograph 'The Crocus' (1982).

339.701 : CROCUS ADANENSIS * Turkey, Adana, above Kurt Kalesi. Ex a N. Stevens coll. (Typically pale lilac-blue with a white throat, in spring. Related to *C. biflorus* & only found in this very small area but not too difficult to grow and proving a very worthwhile plant under bulb-frame conditions in the UK. Norman's coll., made high up above Wolf Castle, has shown more variability than some earlier ones. Some are larger-flowered. Some have yellow throats with a diffuse white rim.) (10) D

340.009 : CROCUS ANCYRENSIS Turkey, Sivas, Seyfibel Gecidi. 1440m. Sandy clay along field edges. N. Stevens coll. (A coll. of this bright orange-yellow, spring-flowering, endemic of north-central Turkey, at the eastern extremity of its distribution. Growing here with *C. biflorus* subsp. *tauri*, so some seed of both may be included. Usually easy under glass in the UK.) (10+) C

340.201 : CROCUS ANTALYENSIS Turkey, Antalya, Bey Dag. N. Stevens coll. (A handsome robust species in Series *Flavi*, localised in several, limited, disjunct populations in W Turkey. Seldom-seen in cultivation and rather difficult in our experience, though Brian Mathew states it is easily grown. Though usually a plant of heavy clays, we find it resents excess moisture at any time. Pale to deep lilac-blue, yellow-throated flowers, sometimes buff or marked with violet outside, in spring.) (10) D

340.351 : CROCUS ASUMANIAE * Turkey, Antalya, N of Akseki. 1200m. Limestone slopes among sparse *Pinus*. (Quite a local species in the wild, limited to the oak-scrub region around Akseki in the western Taurus range, but it has proved to be one of the best of the saffron group in cultivation. Possible outside in a sunny, dry site and an easy, satisfying species under glass in the UK. Delicately veined, white to palest lilac flowers with showy, scarlet styles, generously produced in autumn.) (15+) C

340.510 : CROCUS BANATICUS * No data. A lovely plant, like no other *Crocus* and in a subgenus of its own. Native to C, W & NW Roumania, NE Yugoslavia & SW Ukraine in meadows & deciduous woodland., it resents hot, dry conditions & is best grown outside in the UK in a cool, humus-rich site. Autumnal, bluish lilac to purple flowers have big, feathery, lilac styles, surrounded by wideopen outer segments and shorter, erect, inner ones, giving them an iris-like appearance. (10) C

340.800 : CROCUS BIFLORUS (subsp. *biflorus*) * Italy, Basilicata, "between Trivigno & Arizi". 800m. Ex M. Oorgaard 95-36 (A rare plant in cultivation, the seldom-seen type-race from the limestones of S Italy. Parent of the sterile hybrid 'Scotch Crocus', usually with white flowers, strikingly striped with 3, brown-purple bands on the exterior segments.) (10) D

340.801 : CROCUS BIFLORUS (subsp. *biflorus*) * Italy, Puglia, between Altamura & Bari. 420m. Ex M. Oorgaard 95-28(10) D

341.250 : CROCUS BIFLORUS subsp. *ISAURICUS* * Turkey, Antalya, Irmasan Gecidi N of Akseki. 1500m. Stony humus under *Abies* over limestone. (Spring-flowering race endemic to the W end of the Taurus. In fine form here & variable in colour & markings. Usually lilac-blue with strong, purple feathering on the exterior. Attractive & satisfactory under glass in the UK.) (10) B

- 341.360 : CROCUS BIFLORUS subsp. MELANTHERUS** * No data. From several collections of this fine race, endemic to the Peloponnese & the only autumn-flowering race of this diverse species. Long confused with the similar spring-flowering *C. b.* subsp. *crewei*, (both have striking purple-black anthers). Always white with variable dark exterior stripes or speckles. (10) C
- 341.456 : CROCUS BIFLORUS subsp. NUBIGENA** * Turkey, Mugla, Gok Tepe N of Mugla. 1500m. Among sparse *Pinus* on limestone. Ex N. Stevens colls. (It is not possible to place this population comfortably under any taxon but as Brian Mathew & David Stephens include it under *C. b.* subsp. *nubigena* we follow. It appears to be this mixed or intergrading with *C. b.* subsp. *isauricus* (with some *C. chrysanthus* thrown in) & is mentioned by Brian on p.82 of his monograph. Expect variable, mainly lilac, spring flowers. Some but not all with have the black-maroon anthers characteristic of *C. b.* subsp. *nubigena*.) (10) C
- 341.670 : CROCUS BIFLORUS subsp. PULCHRICOLOR** * No data. From various forms of this rich violet-blue, yellow-throated, spring-flowering race native to damp meadows in the cold, wet, NW corner of Turkey. Good outside in the UK. . . . (15+) B
- 341.726 : CROCUS BIFLORUS subsp. TAURI** Turkey, Agri, near Eleskirt. 2100m. D. Stephens 98-27 (The eastern race in this complex group, usually a snow-melt plant of dryish, montane steppe, extending from central Turkey into NW Iran and Armenia. In theory, distinguished by its combination of numerous, erect leaves, thin corm tunics, usually unmarked lilac flowers and silvery bracts but really a variable and confusing entity. The name is the only one available for plants from this area.) (10) D
- 341.727 : CROCUS BIFLORUS subsp. TAURI** Turkey, Kayseri, N of Sariz. 1800m. Grazed turf. D. Stephens 98-17 . . . (10) D
- 341.801 : CROCUS BORYI** * Greece, Messinia, S of Pilos. 200m. Open limestone slopes. (Big, creamy white goblets with orange styles in autumn. More widespread in S Greece than the sympatric *C. niveus* but not so easy to grow with us.) (10) D
- 341.880 : CROCUS CAMBESSEDESHI** * Spain, Mallorca, Porto Cristo. Ex a D. Stephens coll. (This little Balearic endemic flowers from late autumn into early winter. Very variable from white to deep lilac-blue, usually purple-striped outside.) (10) D
- 341.900 : CROCUS CANCELLATUS (subsp. cancellatus)** * Turkey, Icel, SE of Arslankoy. 1100-1450m. Among sparse conifers in clay over limestone. (The type-race from S Turkey into Israel. Scented, soft lilac-blue flowers in autumn.) (10) C
- 341.970 : CROCUS CANCELLATUS subsp. LYCIUS** * Turkey, Antalya, NE of Hisarcandir. 750m. Stony clay in *Pinus* woodland. (A local SW Turkish race with yellow-throated, creamy white flowers & widely spreading, rich orange style branches.) (10) D
- 341.972 : CROCUS CANCELLATUS subsp. LYCIUS** * Turkey, Antalya, Kemer to Ovacik. Ex D. Stephens 97-02 . . . (10) D
- 342.002 : CROCUS CANCELLATUS subsp. MAZZIARICUS** * Greece, Evia, W of Halkida. 100m. E-facing limestone hills. (The attractive western race. Autumn-flowering with both white & lilac forms, often darkly veined.) (10) C
- 342.007 : CROCUS CANCELLATUS subsp. MAZZIARICUS** * Turkey, Burdur, W of Golhisar. 1150m. Openings among *Pinus* & *Quercus*. (Mainly SE European in its distribution, this race only enters Turkey in the SW corner.) (10) C
- 342.011 : CROCUS CANCELLATUS subsp. MAZZIARICUS** Greece, Argolida, SW of Ligourio. Ex a M. Harvey coll. (Most decorative of the five subspecies. It needs a warm, dry rest when dormant. The species, as whole, with its characteristic, very coarsely reticulate tunic, is a plant of dry habitats in nature, though it often grows in heavy, limestone clays.) (10) C
- 342.609 : CROCUS CARPETANUS** Spain, Sierra de Guadarrama, between Rascafría & Puerto de Navacerrada. D.B. Stephens 99-01. (Rather difficult to grow and very rare in cultivation but not uncommon in the wild, distributed through the alpine meadows of the Sierra Guadarrama into NW Spain & N Portugal at altitudes up to 2300m. It needs lime-free soil and cool growing conditions but also a dry (but not hot) summer rest. Spring flowers variable in colour from lilac to white, variably veined with dark violet, with frilled white or lilac styles. A 1999 David Stephens coll., made more or less in Reuter's 1841 type locality.) (8) E
- 342.802 : CROCUS CARTWRIGHTIANUS** * Greece, Evia. Ex Christian, Elliott & Hoog 613. (Spectacular autumn-flowers, almost as often white as lilac with huge flopping, scarlet styles. A Greek island plant - keep it dry under glass in the UK.) (10) C
- 343.000 : CROCUS CASPIUS** * Iran, Mazanderan, Caspian coast W of Chalus. Among scrub, in sand. (From both our own and P. Furse 5035 colls. made below sea-level along the Caspian shore in the 1960's. A beautiful autumnal species, with yellow-throated, white to lilac-pink flowers. Quite hardy in the UK but seldom seen - it does not like being too hot & dry in summer.) . . . (10) E
- 343.207 : CROCUS CHRYSANTHUS** * Turkey, Konya, S of Beysehir to Akseki. Ex D. Stephens 97-25. (10) C
- 343.208 : CROCUS CHRYSANTHUS** * Greece, Kozani, Oros Vourinos. Ex C. Lovell & P. Bird 97-188. (Somewhat neglected by the specialist grower, doubtless due to the existence of its easily grown, widely available hybrids, the wild forms tend to be much smaller, daintier plants, often none too easy to grow well. Distributed from Serbia to central Turkey, it is essentially a yellow-flowered version of the *C. biflorus* complex and is similarly highly variable. The species may actually cover several taxa.) (10) C
- 343.600 : CROCUS CVIJICII** * Greece, Imathia, Oros Vermio near Seli. 1500m. In turf under *Pinus* on N & W-facing slopes. (A very local, high altitude species, from the mountains where the Greek, Albanian & Macedonian borders meet. Scented spring-flowers in chrome-yellow to orange yellow. Has tolerated recent hot summers, dry under glass but may be best kept cooler.) . . . (10) E
- 344.610 : CROCUS FLAVUS (subsp. flavus)** * No data but the true wild plant - not the sterile 'Dutch Yellow'. Native to SE Europe into NW Turkey, its profuse fiery, orange-yellow flowers in spring make it one of the finest garden-plants in the genus. (15+) B
- 344.850 : CROCUS FLEISCHERI** * No data. From several colls. in Mugla, Denizli & Antalya provinces of SW Turkey. . . (8) C

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
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Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 344.990 : **CROCUS GARGARICUS** (subsp. *gargaricus*) * Turkey, Mugla, Gok Tepe N of Mugla. 1500m. Heavy clay in openings among *Pinus*. (This type-race is only known from here & Kaz Da., far to the NW. The Ulu Da. race (*C.g.* subsp. *herbertii*) is the commonly grown one - this is only very recently in cultivation. It has no stolons & a coarsely reticulate tunic. It also seems quite tolerant of drying-off in summer. Very hardy & neat with rich orange-yellow flowers in spring.) (10+) **D**
- 345.200 : **CROCUS GOULIMYI** * Greece, Messinia, S of Kalamata. 300m. In humus among stones, under *Quercus*. (Local in nature but easy under glass in the UK. Prolific, distinct & beautiful pale lavender flowers on very long tubes in autumn.) (10+) **B**
- 345.211 : **CROCUS GOULIMYI** from 'MANI WHITE' * From the fine white form of the type-race, which grows on the 'middle finger' of the Greek Peloponnese. This occurred in cultivation & is distinct from the wild *C.g.* var. *leucanthus*. (5) **D**
- 345.220 : **CROCUS GOULIMYI** var. **LEUCANTHUS** * Greece, Lakonia, SW of Monemvassia. Ex an S. Keeble coll. (From type-locality material of this recently described, geographically isolated race, which is evenly & consistently white-flowered.) (5) **E**
- 345.605 : **CROCUS HADRIATICUS** * Greece. Ex B. Mathew 5048 (White autumnal flowers, usually with yellow throats. Shorter, more erect orange-red styles easily distinguish it from the allied, usually lilac, *C. cartwrightianus*.) (10) **C**
- 346.703 : **CROCUS KOTSCHYANUS** (subsp. *kotschyanus*) * Turkey, Kahramanmaras, Armut Dag. 1300m. Open areas among *Quercus* on limestone. (Lilac flowers, with yellow-blotched throats, in autumn. Excellent grower & increaser.) (10+) **B**
- 346.900 : **CROCUS KOTSCHYANUS** subsp. **CAPPADOCICUS** Turkey, Sivas, Ziyaret Tepe. c. 2000m. Open sites, in turf & among limestone rocks. D. Stephens & N. Stevens colls. (From type-locality colls. of the lovely central Anatolian race. Lilac, autumn flowers, beautifully veined with a darker shade. Not so vigorous as the type-race but not at all difficult & seldom seen.) (10+) **C**
- 346.901 : **CROCUS KOTSCHYANUS** subsp. **CAPPADOCICUS** * Turkey, Kayseri, N of Sariz. D.B. Stephens 98-16 (10+) **C**
- 347.101 : **CROCUS KOTSCHYANUS** subsp. **SUWOROWIANUS** Turkey, Rize, Ovit Dag. 2600-3000m. Dryish, stony ridges. D. Stephens 98-36. (The most distinct, white-flowered race from high altitudes in NE Turkey into Georgia. Seldom seen in cultivation and not one of the easiest to grow. An alpine plant, adapted to considerable snow-cover in winter & to cold summers, this definitely resents both fluctuating and high soil temperatures, though unlike most alpine *Crocus* spp., it does not mind drying, as long as it is cool. Slower to flower from seed than some, it does so reliably with us when there is a small fall in the mean-temperature at any time from July on. Variable in size & markings, its creamy white flowers are usually delicately veined with violet) (15+) **D**
- 347.102 : **CROCUS KOTSCHYANUS** subsp. **SUWOROWIANUS** Turkey, E of Savsat. 2625m. D.B. Stephens 98-34 (15+) **D**
- 347.103 : **CROCUS KOTSCHYANUS** subsp. **SUWOROWIANUS** Turkey, Golyurt. 2400m. D.B. Stephens 98-38 . . (15+) **D**
- 347.403 : **CROCUS LAEVIGATUS** * Greece, Evia, SE of Karistos. 200m. Among scrub in open, stony areas. (A delightful endemic to Greece & its islands. Very variable autumn & winter flowers in white to lilac with diverse purple markings outside.) (10+) **C**
- 347.500 : **CROCUS LEICHTLINII** * Turkey, Urfa, ESE of Siverek. Ex selected turquoise forms of KPPZ 144. (Limited to the volcanic area around Karaca Da. in SE Turkey : very cold in winter ; very hot & dry in summer. Spring flowers, usually in greyish blue, slaty outside, with deep yellow throats. A difficult, moisture sensitive plant & little known in cultivation.) (5) **E**
- 347.601 : **CROCUS LONGIFLORUS** * Italy, Sicily, Madonie Nebrodi. Ex an A. Edwards coll. (Autumn-flowering from S Italy & Malta. Scented, pale to deeper purple flowers, often with dark veins on a buff ground outside. Quite easy in the alpine-house.) (10) **C**
- 347.610 : **CROCUS LONGIFLORUS** * No data. From a good, deep-coloured clone pollinated with one from Malta. . . . (10) **C**
- 347.800 : **CROCUS MALYI** * Croatia, Velebit Planina above Karlobag. 500m. Among limestone boulders. (A splendid endemic of the stark limestones of the Velebit range, rising sheer above the Adriatic coast. Certainly one of the finest of all species with big, pure-white flowers with yellow throats in late spring. A good growers, said to be excellent outside in sun in the UK.) . (10) **C**
- 348.000 : **CROCUS MEDIUS** Italy, Liguria, Colle de San Bernardo between Albenga & Garesio. D.B. Stephens 98-46. (A very beautiful species allied to *C. nudiflorus* & *C. niveus*. Only known from a small area around the border of NW Italy & SE France, between 200m. & 1400m. Deep to pale lilac flowers, usually with darker, radiating lines, and much cut, scarlet styles in autumn. Once again, we are much indebted to David Stephens for this significant new introduction of wild seed. (8) **D**
- 348.800 : **CROCUS NIVEUS** Greece, Messinia, S of Kalamata. 200m. Among scrub on rocky, N-facing, limestones slopes. D. Hoskins 98-21. (A really magnificent, pure-white, autumn-flowering species, endemic to the S Peloponnese with gorgeous scarlet styles. One of the most satisfying & reliable in cultivation : a good grower in the bulb-frame or in pots.) (10+) **C**
- 348.806 : **CROCUS NIVEUS** * Greece, Lakonia, N of Pírgos Dirou. c. 150m. N-facing bank. D. Hoskins 98-2 (From a locality where the exquisite pale lilac-pink & bicoloured forms occur, so expect some fine variations in this wild coll.) (10+) **D**
- 349.020 : **CROCUS NUDIFLORUS** * No data. A splendid species from moist meadows in SW France & N Spain. Elegant flowers, normally in rich purple, appear on long tubes before the leaves in autumn. One of the best outside in the UK. (15+) **B**

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- 349.200 : CROCUS OCHROLEUCUS** Lebanon, N of Mairouba. 1050m. R. & R. Wallis coll. (Having lost the wild stock we collected in Lebanon over 30 years ago and been unable to trace any other cultivated fertile stock over these years, we are delighted to have this new coll. from Bob and Rannveig. Pure white flowers usually with orange yellow throats from late autumn into early winter. Centered on Lebanon but extending to SW Syria & N Israel. Quite easy & hardy but best under glass in the UK. (10) **D**
- 349.305 : CROCUS OLIVIERI** (subsp. *olivieri*) * Greece, Arkadia, E of Tripoli. 750m. Ex an M. Harvey coll. (Spring-flowering & widespread (though, like many, rather local) at middle-altitudes through the Balkans & W Turkey. This type-race has bright orange-yellow flowers, usually without any exterior markings, other than some brown shading on the perianth-tube.) (10) **C**
- 349.610 : CROCUS OREOCRETICUS** * No data. Autumn-flowers in mid to deep lilac with purple veining & silvery to buff exteriors. From several wild colls. of this member of the *C. sativus* group endemic to high altitudes in the Cretan mountains. (10) **C**
- 349.820 : CROCUS PALLASII** (subsp. *pallasii*) * From several colls. made in SW Turkey & adjacent Aegean Islands. Pale lilac flowers with feathery, scarlet style branches, in autumn. Like others in the *C. sativus* group, it enjoys a hot, dry rest in summer.) (8) **C**
- 350.800 : CROCUS RETICULATUS** (subsp. *reticulatus*) * Croatia, Velebit Planina above Tucepi. 900m. Openings among scrub on limestone. (Local but widespread, spring-flowering species. Lilac, beautifully marked outside with very dark violet.) . . . (10) **C**
- 351.000 : CROCUS ROBERTIANUS** * Greece, Ioanina, W of Metsovo to Ioanina. 600m. Leafsoil at base of *Quercus* & *Ostrya* scrub. (Pale to deeper lilac-blue with a frilly, orange style. Brian Mathew rates it "one of the best of the autumnal species." Not difficult under glass, though possibly best not overheated in summer, and said to be growable outside in the UK.) (10) **D**
- 351.100 : CROCUS RUJANENSIS** * Jugoslavia, Serbia, Rujan Planina. 600m. Ex a N. Randjelovic coll. (8) **E**
- 352.099 : CROCUS SEROTINUS** subsp. **SALZMANNII** * Spain, Granada, Sierra Nevada below Penones de San Francisco. 2300m. Turf in NW-facing depression. (A strongly stoloniferous race from alpine-turf. We came across it in 1970 but, other than recording its existence, no-one has thought it worth distinguishing. We have not seen any other quite like it but the *C. serotinus* group is more than a little complicated. Small corms with long, couch-grass-like stolons. Profuse, pale lilac flowers in autumn.) (15+) **C**
- 352.400 : CROCUS SIEBERI** (subsp. *sieberi*) * Greece, Crete, Hania, Omalos. Ex M. Jope 95-46. (The type-race, endemic to Crete and very rarely seen in gardens. Flowers in spring, always basically white but stained outside with purple brush-marks & with an orange or deep yellow throat - the invalid name *C.s. var. heterochromus* was apt. A rather difficult snow-melt plant.) . . (8) **D**
- 352.455 : CROCUS SIEBERI** subsp. **ATTICUS** Greece, Atiki-Pireas, Pendeli E of Athina. c. 800m. M. Harvey coll., May, 1997. (A type-locality coll. of this race, seldom seen in cultivation & with a restricted distribution, almost confined to Attica. Distinct in its very coarse, *C. cancellatus*-like corm-tunics. Yellow-throated, pale to deep violet-blue flowers in spring.) (10) **C**
- 352.554 : CROCUS SIEBERI** subsp. **SUBLIMIS** * Greece, Trikala, Ori Kerketio. Ex C. Lovell & P. Bird 97-227 (Lilac blue flowers with yellow throats as the snow melts in spring. The race from most of mainland Greece. Easier to grow than the type.) (10) **B**
- 353.120 : CROCUS SPECIOSUS** subsp. **XANTHOLAIMOS** * Turkey, Sinop, SW of Kabali. 1350m. Ex AHEP 83-24 (Only known from *Abies* woodland in this wet area. More dainty than the type race with narrower leaves & smaller flowers, distinguished by their yellow, rather than white, throats, filaments & anthers. Otherwise, translucent, veined lilac-blue goblets in autumn.) . . (15+) **B**
- 353.210 : CROCUS THOMASII** * No data. Autumn-flowering & close to Greek *C. hadriaticus* but with pale to deep lilac flowers. Native to S Italy & the limestones of the Adriatic coast-ranges, below 1000m., this will need a warm, dry summer rest. (10) **C**
- 353.413 : CROCUS TOMMASINIANUS** from 'PICTUS' * Though this species, actually a rather local plant in the Balkans and not at all well-known botanically, can be a (usually welcome) weed in some British gardens, some of its variants are more restrained. This distinct form with white tips to the lilac flowers is both striking & by no means widely available commercially. . . (15+) **B**
- 353.600 : CROCUS TOURNEFORTII** * Greece, Rhodes. Ex an I. Barton coll. (A charming plant of the Greek islands. Ideal for the alpine-house. Lilac-blue flowers with yellow throats open flat & stay open at night during late autumn into winter.) . . (10+) **C**
- 354.002 : CROCUS VELUCHENSIS** * Jugoslavia, Serbia, Kosovo, above Vratnica. 800m. Leaf-soil over clay in dense *Fagus* woods. (A splendid, woodland form from the area where Albania, Kosovo & Macedonia meet. Large, lavender-blue flowers shading to darker, violet tips, in spring. Likes it cool & not too dry. Does well here in a pot but may be just as good outside.) . . . (10+) **B**
- 354.003 : CROCUS VELUCHENSIS** * Greece, Pieria, Oros Olimbos. 1500m. Open, S-facing slope. Ex a P. Watt coll. (10+) **B**
- 354.205 : CROCUS VERNUS** (subsp. *vernus*) Slovenia, near Novo Mesto. W. McLewin 98-03. (The wild, central European ancestor of many hybrids, itself rarely seen in gardens. The eastern populations, once distinguished as *C. scepusiensis* and *C. heuffelianus*, have their large, lavender flowers tipped with darker purple 'Vs', though some Slovenian colonies are mainly white.) . . (15+) **B**
- 354.600 : CROCUS VERSICOLOR** * France, Alpes de Haute Provence, Col de la Colle St. Michel. 1400m. Stony, S-facing slope. (Endemic to SE France, just crossing into Italy. Elegant white or pale lilac flowers, delicately feathered outside, in spring. Usually quite late with us, like the related *C. malyi*, but in 1998 it flowered very early - it all depends on the winter weather) . . . (8) **C**
- 354.705 : CROCUS VITELLINUS** Lebanon, N of Mairouba. 1050m. R. & R. Wallis coll. (In Turkey, this is spring-flowering & rather difficult to distinguish from the allied *C. graveolens*. The seldom-seen Lebanese race flowers from late autumn into mid-winter & is most distinct with deep orange-yellow, sweet-scented flowers. Its flowers need protection under glass in the UK.) . . . (8) **D**

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Cyclamen : we list two recently described Cretan races

The flowers & beautiful foliage of *Cyclamen* can be enjoyed almost throughout the year. Only the basic wild species are here. Garden selections are in the last section of this list. *C. hederifolium* & *C. coum* are, of course, reliable garden-plants but the majority can be grown to perfection, in the UK, only under glass. All will take very brief periods of light frost but some measure to prevent prolonged freezing is only common-sense. Shading & preventing dehydration when dormant are sensible also. Sowing seed straight from the capsule is a counsel of perfection. Reasonably fresh seed should be perfectly

satisfactory. Like most species in this list, these germinate at low-temperatures & should be sown in autumn. Soaking seed in hot (not boiling) water & leaving for 24 hours at room-temperature before sowing appears to aid germination. Always keep pots of ungerminated seed (they will appear in time) and guard against mice. By far the best references are C. Grey-Wilson's monographs on the genus (1988 & 1997). We have applied some of the multitude of new names to be found in the latter, though we question the justification for many & doubt if all the newly described taxa will reproduce evenly from seed.

- 358.000 : CYCLAMEN AFRICANUM** * Algeria, Kabylie, E of Azazga. 850 m. Humus under deciduous *Quercus*. (Large, patterned, dark green leaves & big, pink flowers in autumn. Borderline hardiness in UK & best grown frost-free.) (10) **C**
- 358.500 : CYCLAMEN BALEARICUM** * Spain, Mallorca, N of Andratx. 350m. In humus among *Quercus*. Ex a D.M. Hoskins coll. (Delicately pencilled, white flowers in spring. Likes a lot of shade, resents overdrying in summer & is best frost-free.) (15+) **B**
- 359.003 : CYCLAMEN CILICIUM** * No data. From several collections made in Konya & Antalya provinces, Turkey. Dainty, autumn-flowering species with pale pink flowers & small, rounded leaves. Hardy in a well-drained, sunny site in the UK. (10+) **B**
- 339.020 : CYCLAMEN CILICIUM : WHITE, PINK NOSE** * From a P.Davis coll.given to us by Ken Aslet. (10) **C**
- 360.100 : CYCLAMEN COUM f. ALBISSIMUM** * Syria (Israeli Occupied Territory), Golan Heights near Mas'ada. (From a recently introduced pure white form of *C. coum*, lacking the dark 'nasal markings' of previously cultivated whites. Surely one of the most exciting of several variants brought to light & introduced through Cyclamen Society field-work. Rather thin-textured, round, unmarked, dark green foliage and big, broad flowers. Interesting not only in its distinct appearance but in its southern habitat. Because of the latter, as well as its rarity in cultivation, it will be best grown under glass in the UK for the present.) . . . (10) **E**
- 360.500 : CYCLAMEN COUM subsp. ELEGANS** (*C. elegans*) * Iran, Mazandaran, S of Chalus. 20m. In humus & moss in wet *Fagus* woodland. (Maintained from our 1966 coll. by D. Hoskins. Not an easy plant to grow, seldom setting much seed, it continues to be a rarity in cultivation. Perhaps it even merits specific status as *C. elegans* but more field-work in the Caspian forests is needed. Large pink flowers without a white 'nose' & with elongated, acute petals above pointed, silver-patterned leaves, more heart-shaped than in western *C. coum*. Best grown frost-free, shaded & cool in summer, when it should never be allowed to dry completely. Its peak flowering is in early winter, usually November in the UK, filling a gap in the *Cyclamen* season.) (10) **F**
- 360.510 : CYCLAMEN COUM subsp. ELEGANS** (*C. elegans*) * Azerbaijan. No further data. From material derived from Moscow Botanic Garden as *C. elegans* & originally collected in Azerbaijan, at the NW limit of its distribution. Not quite the same as our 1966 colls. from the Caspian coast of Iran but seems a little easier to grow & still has the characteristics of this distinct taxon.) (10) **F**
- 361.510 : CYCLAMEN CYPRIUM** * No data. Fragrant, white flowers with auricles & magenta blotches around their mouths, from late autumn into winter. Distinctive, grey-marbled, dull-green leaves, crimson below. Best grown frost-free in the UK.) (15+) **C**
- 363.003 : CYCLAMEN GRAECUM** (subsp. *graecum*) * Greece, Lakonia, Agios Nikolaos NW of Githio. 500m. Steep slopes under olives. (From several forms, originally selected in the wild for the outstanding patterns & shapes of their leaves.) (10+) **C**
- 363.016 : CYCLAMEN GRAECUM** (subsp. *graecum*) Greece, Messinia, Kardamili to Petriovouni. M. Jope 98-07 . . . (10+) **C**
- 363.017 : CYCLAMEN GRAECUM** (subsp. *graecum*) * Greece, Messinia, SW of Hora. Ex an H. & I. Barton coll. (From two fine clones selected by Ivor Barton in 1980, one with particularly richly coloured, carmine-pink flowers.) (10+) **C**
- 363.018 : CYCLAMEN GRAECUM** (subsp. *graecum*) * Greece, Attiki, Imittos (Hymettus) (From a fine clone.) (10+) **C**
- 363.049 : CYCLAMEN GRAECUM subsp. ANATOLICUM** * Turkey, Antalya, W of Kemer. 300m. Among *Pinus* on steep, limestone slope. (From a clone with well-marked foliage which, like many of the Turkish forms, is delicately scented.) (10+) **D**
- 363.099 : CYCLAMEN GRAECUM** * No data. From a very wide range of this magnificent, autumn-flowering species. (15+) **B**
- 363.100 : CYCLAMEN GRAECUM f. ALBUM** * Data as for 363.003. Pure white ex the original E.& R. Franke coll. . . (10) **D**
- 363.200 : CYCLAMEN GRAECUM subsp. CANDICUM** (*C. graecum* subsp. *mindleri*) Greece, Crete, Rodopos peninsula, near Astratigos. Olive groves. P.& P. Watt coll. (Recently described Cretan race. Previously listed by us under a *C. graecum* population ref. 363.008 from an M. Jope coll. in this locality. A barely distinct island race tending towards white & paler pinks with a solid, crimson-purple basal-blotch extending up into the petals. Usually has pointed leaves marked with velvety black-green) . (10+) **D**

- 364.003 : CYCLAMEN HEDERIFOLIUM** * Greece, Evia, W of Karistos. 200m. Among scrub on schist. (A distinct, large-leaved, large-flowered race, approximating to *C.h.* var. *confusum*. Long flowering-season, well into November under glass.) . (15+) **B**
- 364.009 : CYCLAMEN HEDERIFOLIUM** Greece, Lakonia, Oros Taigetos, Profitis Ilias above Paleopanagia. 1500m. Steep, rocky slopes in deciduous woodland. Ex D. Hoskins 95-14. (A hardy form from a high altitude Peloponnese locality) (15+) **B**
- 364.099 : CYCLAMEN HEDERIFOLIUM** * No data. From a wide range of cultivated forms of this incomparable, autumn-flowering species, the hardest & best garden-plant of all, which will establish & sow itself in most of the UK. Pink flowers. . . . (20+) **A**
- 364.100 : CYCLAMEN HEDERIFOLIUM** f. **ALBUM** * No data. From white-flowered plants. Variable foliage. (20+) **B**
- 364.200 : CYCLAMEN HEDERIFOLIUM** var. **CONFUSUM** Greece, Crete, Topolia. Between limestone rocks, under *Pinus brutia*, on steep slopes. P. & P. Watt coll. (Recently described. We listed seed from the original discovery under *C. hederifolium*, population ref. 364.050, from the M. Jope 95-038 coll., before it had been seen in flower in 1996. This widespread species is extremely local in Crete and occurs in this very large-leaved, often scented, tetraploid race. May not be so hardy as some.) (10+) **D**
- 364.520 : CYCLAMEN INTAMINATUM** * No data. Distinct variant with dark, unmarked leaves, like a plain-leaved *C. coum*. Dainty, delicately veined, white flowers in early autumn. Usually a more enthusiastic grower than other forms of this. (20+) **B**
- 365.010 : CYCLAMEN LIBANOTICUM** * No data. Most sumptuous of the spring-flowering ones with large, pale-pink flowers, distinctively marked with crimson. We have seen it grown successfully outside in the UK but it is best under glass. . . (15+) **C**
- 366.500 : CYCLAMEN PERSICUM** * Lebanon, S of Tripolis. (From material we collected in the 1960's in the Lebanese hills, where it fills the dry-stone walls of abandoned terraces with a profusion of white & pale pink, crimson-nosed flowers.) (15+) **C**
- 366.510 : CYCLAMEN PERSICUM** * Greece, Rhodes. Ex an E. Sewell coll. (From an excellent form, dwarfer & altogether more compact than usual. This flowers profusely and always excites attention when exhibited.) (10+) **C**
- 366.550 : CYCLAMEN PERSICUM** * No data. From a range of wild-forms of this parent of the over-bred, florists' strains. Elegant flowers, mostly in crimson-nosed, palest pinks, in spring, & foliage which rivals *C. graecum*. Best frost-free in UK. . . (15+) **B**
- 366.551 : CYCLAMEN PERSICUM** f. **PUNICEUM** * No data. From an exceptional crimson-pink form, grown by John Blanchard's father under the barely decipherable label 'Karpas'. It has been further selected by Peter Moore as 'Tilebarn Karpathos', though there was no other indication that the original came from that island. A lovely, deep, dusky colour.) (10+) **C**
- 366.552 : CYCLAMEN PERSICUM** f. **PUNICEUM** * No data. From a corm collected by Bertie Blount, almost certainly in Syria. Not quite the same shade as the preceding but a rich, deep rose-pink. Scented & with beautifully marked leaves. . . . (10+) **C**
- 367.005 : CYCLAMEN PSEUDIBERICUM** * Turkey, Kahramanmaraş, Armut Dagi above Tekir. 1500m. Among deciduous oaks on N-facing slope. (Our cultivated seed from a colony we found in 1985 - it represents a considerable northern extension of the distribution, well into the Anti-Taurus & at the altitudinal limit recorded for the species. Its richly coloured flowers more closely resemble the old, long-mysterious 'Van Tubergen stock' than the Amanus populations. Well-marked, glossy foliage.) . . (10) **D**
- 367.010 : CYCLAMEN PSEUDIBERICUM** * No data. Among spring-flowering ones, this S Turkish endemic rivals the related *C. libanoticum* in its magnificent rich crimson-purple flowers. Possible outside & splendid in an unheated greenhouse . . . (10+) **C**
- 367.015 : CYCLAMEN PSEUDIBERICUM** f. **ROSEUM** * Turkey, Adana, near Dörtöyl. Ex ACW 664. (Originally selected out of the Albury, Cheese & Watson coll. of this very variable Amanus population by Jack Boggis in the late 1960's. Distinct from most cultivated forms, not only in their pale rose-pink colour but in their elegant, more elongated petals.) (10) **D**
- 367.650 : CYCLAMEN PURPURASCENS** from **FATRA FORM** * No data. From the race described from Slovakia as *C. fatrense*. As we have this in cultivation, it is relatively distinct in its thick-textured, plain green foliage. Large purple-pink flowers. Not easy to keep in good condition in the UK. Maybe happier in more continental climates, it does well in the E of the USA. . . . (10) **D**
- 367.900 : CYCLAMEN REPANDUM** (subsp. *repandum*) * France, Corsica, N of Bastia. 100m. *Castanea* woodland. (From plants selected in the wild in 1962, as being outstanding in the richness of their colour, and which gained an FCC for this species, when exhibited by us many years ago. Not always the easiest of species, though it can be seen naturalized in quantity in some mild, UK gardens. Variably patterned, ivy shaped leaves and elegant flowers of luminous carmine-pink in spring. (15+) **D**
- 367.990 : CYCLAMEN REPANDUM** f. **ALBUM** * Pure-white flowers without a pink nose, resemble those of *C. creticum* except for the exerted style. Usually produces a good number of white-flowered seedlings. (10) **E**
- 368.003 : CYCLAMEN REPANDUM** subsp. **PELOPONNESIACUM** * Greece, Lakonia, Oros Taigetos, above Paleopanagia. 1400m. In humus under *Platanus*, *Abies* & *Pinus*. (From a clone with foliage, speckled all over with white, but this population, from a much higher altitude than that usually recorded for this subspecies, has extremely variable leaf-markings, many like the type-race. Flowers, however, are consistently the pale-pink with red noses to be expected in most Peloponnese *C. repandum*.) . . (10+) **D**
- 368.009 : CYCLAMEN REPANDUM** subsp. **PELOPONNESIACUM** * Greece, Lakonia, Oros Taigetos, Profitis Ilias. 2000m. Under rocks on open hillside. Ex D. Hoskins 98-23. (From an even higher altitude coll. made well above the tree-line.) (10+) **E**
- 368.200 : CYCLAMEN REPANDUM** subsp. **RHODENSE** * No data. A distinct enough island-race, endemic to Rhodes. Leaves irregularly splashed with greyish white & white (or very pale pink) flowers with pink 'noses'. Not a vigorous plant. . . (10+) **E**

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
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Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 380.420 : *DAPHNE ALPINA* * No data. Neat, dwarf, deciduous shrub with fragrant, white flowers in summer. (10+) B
- 380.421 : *DAPHNE ALPINA* from DWARF FORM * No data. From a clone sent to Ron Beeston from Czechoslovakia. (10) C
- 383.450 : *DAPHNE LAUREOLA* * No data. Dark, leathery evergreen leaves. Fragrant, yellow-green flowers in winter. . . (8) A
- 384.020 : *DAPHNE MEZEREUM* * No data. Glorious shrub. Purple-pink flowers wreath the naked branches in spring. . (10) A
- 384.050 : *DAPHNE MEZEREUM* f. *ALBA* * No data. White flowers followed by yellow fruits. Comes 'true' from seed. . (8) B
- 384.450 : *DAPHNE OLEOIDES* (subsp. *oleoides*) * No data. Dwarf, grey-leaved evergreen. Creamy flowers in spring. . . (10+) B
- 385.050 : *DAPHNE PONTICA* * No data. Glossy evergreen foliage. Scented, spidery, yellow-green flowers in spring. . . . (8) A
- 414.005 : *DIPCADI SEROTINUM* * Spain, near Bornos. Ex an R. & R. Wallis coll. (A strange bulb of sombre attraction, locally distributed in dry, rocky sites in SW Europe & NW Africa. In early summer, stems, about 30cm high, carry one-sided racemes of pendant greenish bells flushed with peach and brown shades. Seldom seen but not difficult in the bulb-frame.) (10+) C
- 424.126 : *DRACUNCULUS VULGARIS* (var. *creticus*) Greece, Crete, S of Hania, Therisso. M. Jope 98-14. (A wild collection from the Cretan form of this spectacular aroid, up to 1m. high, with pedately divided foliage & huge, fleshy, brown-purple spathes on maroon-spotted stems. This island race usually has the large divided leaves spectacularly marked with oblique silver slashes. Usually possible in the open garden in the S of the UK & arresting in a hot, dry site but safest in a bulb-frame in colder areas.) . . (8) D
- 471.910 : *ERYTHRONIUM CAUCASICUM* * No data. The representative of the *E. dens-canis* group in the Caucasus and Talysh, extending into the Caspian forests NW Iran. Consistently white flowers appear to be the main diagnostic character. . . (10+) D
- 472.002 : *ERYTHRONIUM DENS-CANIS* Bosnia & Hercegovina, NW of Bosanski Petrovac. W. McLewin 98-31 (Perhaps the finest in the genus with beautifully brown-mottled, grey-green leaves and rosy purple flowers. Easy outside in the UK) (20+) C
- 472.200 : *ERYTHRONIUM SIBIRICUM* (*E. dens-canis* var. *sibiricum*) Russia, SE of Tomsk. (The eastern version of the preceding, collected in central Siberia, on the northern rim of the Altai. Distinct in its yellow anthers and somewhat larger flowers. These members of the *E. dens-canis* group are not always easy to germinate. Note our comments about the long cold periods required by some high altitude western American *Erythronium* spp. Any indications of the germination requirements of the Euro-Siberian species from successful growers of these will be welcome so they can be passed on in future lists.) (20+) D

Fritillaria : a wider range of seeds than ever

Possibly the genus most esteemed by the more specialised of British bulb-enthusiasts at present. Most are not at all difficult to grow in standard bulb-frame conditions or, perhaps better, in pots in a well-ventilated, unheated greenhouse in the UK. Few, however, are easy in the open garden in Britain. As with *Crocus* & *Narcissus*, we are progressing towards our aim of establishing authentic parent-stocks of all species, if possible raised from wild seeds, for the production of hand-pollinated seed for our lists. Of course, some species will always be a problem and be in irregular, very limited. Particularly notable this season is the extensive range of material in the *F. crassifolia-hermonis* complex, resulting from the investigation of this group in Syria & the Lebanon by Bob & Rannveig

Wallis. Martyn Rix worked on this complex at the beginning of his involvement with this genus and it may now be worth reviewing it again. While specialists await a modern monograph from Martyn, it is possible that popular interest in this genus may have been stimulated by the recent publication of "The Gardener's Guide to Growing Fritillaries" by Kevin Pratt & Michael Jefferson-Brown. This is primarily aimed at presenting some more widely cultivated representatives to the general gardener. Some names in this book are not used here, as we generally follow the nomenclature of the Rix accounts in the standard floras for Europe, Turkey & Iran. "The Bulb Book" by Rix & Phillips provides a remarkably complete photographic record with brief, accurate notes.

- 490.000 : *FRITILLARIA ACMOPETALA* (subsp. *acmopetala*) * Turkey, Antalya, Gullukdagi, NW of Antalya. 800m. Grassy & stony areas among scrub. (Round-shouldered, elegantly waisted bells in yellow-green with brown central shading.) . . (15+) B
- 490.008 : *FRITILLARIA ACMOPETALA* (subsp. *acmopetala*) * Syria, Djebel Nusairi. 950m. Ex R. & R. Wallis 96-24. (15+) C
- 490.009 : *FRITILLARIA ACMOPETALA* (subsp. *acmopetala*) * Syria, N of Qneyeh. 310m. Ex R. & R. Wallis 96-8. . (15+) C
- 490.010 : *FRITILLARIA ACMOPETALA* * No data. Round-shouldered, elegantly waisted bells, usually in yellow-green with brown central shading. A lovely thing, about 30cm. high, & one of the easiest in a bulb-frame or even outside in the UK. . . . (20+) A
- 490.800 : *FRITILLARIA ALFREDAE* subsp. *GLAUCOVIRIDIS* * Turkey, Adana, above Hasanbeyli to Fevsipasa. 1100m. Open stony areas among *Quercus* scrub on W-facing slopes. (A most graceful & beautiful species - elegant, yellow-green flowers with a glaucous sheen. Endemic to this corner of Turkey near the Syrian border. Not difficult in a bulb-frame in the UK.) . (15+) C

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
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- 491.100 : FRITILLARIA ARGOLICA** * Greece, Argolida, near Ermioni. Ex an R. & R. Wallis coll. (Recently acknowledged taxon, supposedly a hybrid or intergrade between *F. graeca* & *F. rhodocanakis* & more or less intermediate in appearance.) (10+) **D**
- 491.101 : FRITILLARIA ARGOLICA** * Greece. Ex V. Horton 1415 (Originally collected as a hybrid between *F. graeca* & *F. rhodocanakis*, this appears to fit in here, though it is closer to *F. rhodocanakis* than to *F. graeca* or the 491.100 coll.) (15+) **D**
- 491.102 : FRITILLARIA ARGOLICA** Greece, Argolida, Poros. 200m. Uncultivated olive-groves. Ex a M. Harvey coll. (An island population from Poros, off the NE tip of the Argolida peninsula, next to the *F. rhodocanakis* island of Idra.) (10+) **D**
- 491.150 : FRITILLARIA ARIANA** Afghanistan, Herat, N of Herat. 600m. Grassy slopes. (A superb coll. by a Turkmen botanist from this NW corner of Afghanistan, bordered by Turkmenistan & Iran. A little-known species in subgenus *Rhinopetalum*, growing in sandy steppe, sometimes even in unstable dunes, which just enters Iran near here and extends NW to near Ashkhabad. Distinguished from *F. gibbosa* by its unspotted flowers, narrower basal leaves & largely glabrous stems. A small plant is illustrated in Rix & Phillips' "The Bulb Book" but it can grow up to about 20cm. high with about 12, flat, horizontal, dark-centred, soft-pink flowers with deeply impressed nectaries. A very beautiful & desirable species but most unlikely to be easy to cultivate.) (10+) **E**
- 492.101 : FRITILLARIA BITHYNICA** * Greece, Samos, Ambelos. 700m. Under *Castanea* in leaf-soil on mica-schist. Ex a D.M. Hoskins coll. (Glaucous, yellow-green bells, yellower inside. The island, Samos & Khios, races are little-known.) . . . (10+) **C**
- 492.105 : FRITILLARIA BITHYNICA** * Turkey, Denizli, S of Denizli. 1700m. Sparse *Pinus* woods on limestone. Ex R. & R. Wallis 90-38. (Described as a good, dwarf, yellow form. Unwinged capsule but confirmed by Martyn Rix as *F. bithynica*.) . . (10+) **C**
- 492.106 : FRITILLARIA BITHYNICA** * Turkey, Mugla. Ex an R. & R. Wallis coll. (From a distinctly green form.) . . . (10+) **C**
- 492.200 : FRITILLARIA BUCARICA** * Tadjikistan, E of Duschanbe, Romit. (From a particularly fine population of this very beautiful Central Asian species, distributed from NE Afghanistan into the Pamir-Alai at up to 2400m. 10 or more, green-tinted, white bells with dark-tinged nectaries, opening widely on 30cm. stems. No great trouble in the bulb-frame in the UK.) (15+) **C**
- 492.400 : FRITILLARIA CARICA** (subsp. *carica*) * Greece, Samos, Ambelos. 950m. Under *Pinus* on mica-schist. Ex a D.M. Hoskins coll. (One of the most charming of this group. Grey-green leaves & dark nectaries inside its clear-yellow bells.) (10+) **C**
- 492.401 : FRITILLARIA CARICA** (subsp. *carica*) * Turkey, Mugla, Gok Tepe. 1500m. Under *Pinus* on limestone. . . (10+) **C**
- 492.402 : FRITILLARIA CARICA** * Turkey, Burdur, W of Yesilova. 1280m. Loose serpentine talus on open slope. (A fine form, growing in a precisely similar habitat with the same serpentine-associates as *F. carica* subsp. *serpenticola*.) (10) **D**
- 492.404 : FRITILLARIA CARICA** (subsp. *carica*) * Turkey, Mugla, SE of Fethiye. 1250m. Under *Cedrus* on limestone. Ex R. & R. Wallis 90-22. (Another good yellow form from mainland Turkey, high up on Baba Dag.) (10+) **C**
- 492.405 : FRITILLARIA CARICA** (subsp. *carica*) * Turkey, Mugla, SE of Fethiye. 1250m. Under *Cedrus* on limestone. Ex R. & R. Wallis 90-21. (An intriguing little greenish yellow and brownish yellow variant from the same area as the preceding.) . (10+) **C**
- 492.720 : FRITILLARIA CAUCASICA** * No data. Not often seen in cultivation, the species extends from the cold NE corner of Turkey across Transcaucasia into NW Iran. Rather a fine thing with quite large, conical, glaucous purple-brown bells.) (10) **D**
- 493.000 : FRITILLARIA CONICA** * Greece, Messinia, S of Pilos. 200m. Edge of *Quercus* scrub on open limestone slope. (One of the more robust in the group of E Mediterranean, yellow-flowered species. Up to 25cm. high with large bells & rich-green, glossy foliage. Extremely local in nature but not at all difficult to grow in the alpine-house or bulb-frame in the UK.) (15+) **C**
- 493.305 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Erzurum, Kop Dag. 1700m. Ex R. & R. Wallis 93A-17. (Distributed widely but very locally across Turkey from Denizli to Erzurum, always growing in steep, loose, unstable talus-slides. In general, a dwarf plant with fleshy, twisted, greyish foliage & big, greenish yellow, brown-chequered bells.) (15+) **D**
- 493.306 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Gumushane, S of Soganli Gecidi. 1600m. Ex R. & R. Wallis 93A-46. (An interesting northern extension of the range well into the Pontus and a vigorous grower in cultivation.) . (15+) **D**
- 493.500 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Van, NNW of Baskale. 2800m. Open, stony slopes. (Very variable here in the colour & markings of its plump, chequered bells. Striped & tinted in red-brown to yellow-green.) (15+) **C**
- 493.503 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Iran, Kurdistan, S of Rezaiyeh. 1980m. Rocky, S-facing slope. (An extremely robust form of this variable race with up to four, brown-chequered bells on each 20cm. stem.) (15+) **C**
- 493.506 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Van, E of Bahcesaray. 1900m. Ex R. & R. Wallis 87-31. (From a fine dark form, selected in the wild by Bob & Rannveig in this Mecca for bulb-enthusiasts on Artos Dag) . . . (10+) **D**
- 493.507 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Hakkari, Esendere. 1700m. Ex a Z. Zvolanek coll. (From right against the Iranian border and showing a range of variation somewhat similar to the population 493.503.) (15+) **B**
- 493.520 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Siirt, W of Sason, Halkis Da. 1900m. Rocky summit area. Ex a N. Stevens coll. (An interesting collection from a long way to the W of the recorded range of this variable subsp. but it keys out as this & it seems best to place this under it for the moment. "Brownish, tessellated bells - not unlike *F. montana*", writes Norman. Rannveig Wallis, growing an E. & R. Franke coll. from this mountain, describes it as a "big, dark bell".) (10) **E**

Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 494.000 : **FRITILLARIA DAVISII** * Greece, Lakonia, NW of Pigos Dirou. Low, limestone hills. (An endemic of the S tip of the Mani peninsula, near *F. graeca* but with shiny bright-green leaves & no green stripes on its tubby, brown-purple chequered bells. Although one of the most localised species in nature, one of the easiest in cultivation.) (15+) **B**
- 494.400 : **FRITILLARIA DRENOVSKII** * Greece, Drama, Falakro above Volokas. 1500m. Among sparse *Pinus* in subalpine meadow. (One of our favourite species. Slender & elegant, with thin, greyish leaves on 15-20cm. stems. Narrow brown bells, varying in this site from dark chocolate to honey-brown shades. Endemic solely to the Greek-Bulgarian border-ranges.) (10+) **D**
- 494.800 : **FRITILLARIA EHRHARTII** * Greece, Evia, E of Karistos. 200m. Seasonally damp, N & W-facing sides of gully on mica-schist. (A beautiful native of S Euboea & the neighbouring Kiklades. Big, bloomy, yellow-tipped, grape-black bells glow to ruby in the evening sun. Stout 20-30cm. stems can carry up to 6 flowers. Not often seen but easy enough here under glass.) . . . (15+) **C**
- 494.811 : **FRITILLARIA EHRHARTII** from **YELLOW FORM** * Field data as above. From a single clear-yellow clone we found here in April, 1985. We have grown several hundred seedlings from it & so far have flowered only two more yellows. These have been back-crossed with the original but we have not yet flowered seedlings so can give no guarantee as to the results. . . (10) **E**
- 495.200 : **FRITILLARIA EPIROTICA** * Greece, Ioanina, Oros Smolikas E of Konitsa. 2300m. Loose, stony, E-facing, serpentine slopes. (Fat, purple-brown bells, dimly tessellated with yellow-green, sit almost on the ground, where the prostrate, thick, grey-green leaves twist & curl. From the type-locality, where the E.K. Balls 3434 coll. was made in 1937. This very dwarf, alpine species is almost exclusively endemic to the serpentine screes around the summit of Smolikas. Seed listed from an R. Baker coll., under our population reference 495.200 a couple of years ago, should have been given the ref. 495.205. A little detective work by Robert Rolfe established its origin on the Katara, where it tends more towards *F. montana*. The Smolikas form is one of the most desirable of all species. Exquisite and appropriate cherished in an alpine-house pan & still little-known in cultivation.) (10) **E**
- 495.700 : **FRITILLARIA FORBESII** * Turkey, Mugla, Baba Da. SE of Fethiye. 850m. Humus beside boulders in shade of *Pinus*. (From near Forbes' 1842 type-locality & a little different to the serpentine populations on the Marmaris peninsula. Lime-tinged, yellow bells. Near *F. carica*, with which it grows, but taller, at 20cm. or so, & with narrow, linear, bright-green leaves.) (10+) **D**
- 496.002 : **FRITILLARIA GRAECA** (var. *graeca*) * Greece, Lakonia, Akrotiri Tainaro (Cape Matapan). Near sea-level. Ex an A. Edwards coll. (Certainly this is *F. graeca*, though an extraordinary coll. from the territory of *F. davisii* & apparently sympatric with it. A fairly dwarf race, very similar in flower to the Taigetos population we grow under 496.005, this has produced some charming pale greenish yellow forms, which we have not seen in any other populations of *F. graeca*.) (15+) **D**
- 496.005 : **FRITILLARIA GRAECA** (var. *graeca*) * Greece, Lakonia, Oros Taigetos. Ex an N. Stevens coll. (Quite dwarf with little, rounded bells in chocolate-purple with the neat, acid-green fascia, characteristic of this race.) (15+) **C**
- 496.006 : **FRITILLARIA GRAECA** (var. *graeca*) * Greece, Attiki, Imittos (Hymettus). Ex a R. & R. Wallis coll. (Described by Rannveig as particularly good black form with a prominent green central stripe down the centres of the segments.) . . . (15+) **D**
- 496.020 : **FRITILLARIA GRAECA** (var. *graeca*) * No data. From several colls. on Parnes, etc. Most will have single, more broadly campanulate bells than 496.000, on stems of about 15cm. Purple-brown segments with distinct yellow-green fascia. . . (15+) **B**
- 496.100 : **FRITILLARIA GRAECA** var. **GUICCIARDII** * Greece, Attiki, Parnis. Ex a N. Stevens coll. (From a type-locality coll. of this taxon, first described from the summit area of Parnes. Doubtfully worth separating from the variable *F. graeca* but Kamari gives it varietal status. She distinguishes it on its longer bells, carried, up to 5, on slightly taller, broader-leaved stems.) (15+) **C**
- 496.950 : **FRITILLARIA HERMONIS** (subsp. *hermonis*) Syria, Mt. Hermon, NE slopes between Quatana & Barqash. 1450m. From selected clones under R. & R. Wallis 96-45. (From several selections, varying from mainly red with a slight green tessellation to grey-green with some red chequering. Before Bob & Rannveig's recent investigations, this dwarf type-race, only known from high on Mt. Hermon, was little-known botanically & unknown in cultivation. While the range of variability illustrated by their collections may have made the botanical situation even muddier, they have certainly produced some horticulturally distinct plants.) (15+) **D**
- 497.000 : **FRITILLARIA HERMONIS** subsp. **AMANA** * Syria, NW of Rankous to Sarghya (Antilebanon). 1850m. Scree. Ex R. & R. Wallis 96-39. (A few seeds available from these recent Syrian colls., which are distinct from the Turkish populations.) (10+) **D**
- 497.001 : **FRITILLARIA HERMONIS** subsp. **AMANA** * Syria, above Bludan. 1900m. Scree. Ex R. & R. Wallis 96-43. (10+) **D**
- 497.003 : **FRITILLARIA HERMONIS** subsp. **AMANA** * Turkey, Hatay, E of Belen. 1250m. Among *Quercus* scrub on steep, limestone slopes. (Large, elongated green bells tessellated or marked with purple-brown & with clear green fascia.) . . (10+) **C**
- 497.004 : **FRITILLARIA HERMONIS** subsp. **AMANA** * Turkey, Kahramanmaras, SE of Goksun. 1550m. NE-facing limestone slope. (We have previously listed seed from a clone ex Horton & Stevens 2333 (which has been named 'Goksun Gold') under this population reference number but we have now flowered a batch of seedlings from a small wild seed-collection made with Norman Stevens in 1994 on the same site & find they are all yellower than those we have seen in other localities. Our experience with yellow forms of other species is that only a very small proportion, if any, come 'true' in the first generation - note our comments under *F. ehrhartii* - but in this case, we are dealing with a geographical variant. Expect yellow to yellow-greens.) (10+) **E**

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B : \$3.00 ; £2.00 ; DM5,- ; FF18.- D : \$5.00 ; £3.50 ; DM9,- ; FF32.- F : \$9.00 ; £6.00 ; DM16,- ; FF55.-

- 497.005 : FRITILLARIA HERMONIS subsp. AMANA** * Lebanon, above B'Shari Cedars. 2000m. Terra rossa on limestone outcrops. (Ex ACW 963 & a W.K. Aslet coll. from the same area, distributed in the 1960's as *F. crassifolia*. A neat little plant with dimly chequered, green bells, much closer to some Syrian populations than to the larger, northern, Turkish plants.) . . . (10+) **D**
- 497.020 : FRITILLARIA HERMONIS subsp. AMANA** * No data. From several other colls. of this fine member of the *F. crassifolia* group, including the E.K. Balls type. Centred on the Amanus range in S central Turkey, S into Syria & the Lebanon, at about 1500m. Long, greenish or yellowish bells, tessellated with brown purple & with clear, green fascia. Stems of about 20cm. (15+) **C**
- 497.310 : FRITILLARIA IMPERIALIS** * No data. The beautiful Crown Imperial, most spectacular of the genus, distributed from SE Turkey through W Iran & beyond. Heads of big, amber-orange bells on stems of 60cm. or more. (10+) **B**
- 497.610 : FRITILLARIA INVOLUCRATA** * No data. From several forms of this elegant species. Wild in the Alpes-Maritimes & NW Italy. About 20cm. high, narrow-leaved & with green, purple-chequered bells. Possible outside in the UK. (15+) **C**
- 497.660 : FRITILLARIA KARELINII** Turkmenistan, Kara Kum, N of Nebit Dag. 600m. Grassy hillsides. (We list this pink-flowered member of subgenus *Rhinopetalum* under the name received. The species is obscure & was originally described from N of the Caspian, extending in a curve into Turkmenistan. It may or may not be distinct from *F. gibbosa*, from which it is apparently distinguished by its narrower flower-segments &, most strikingly, by its wingless seed-capsules. We have some excellent wild-collected seed but no capsules! Unknown in cultivation & from a seldom-visited locality. Probably difficult.) (10+) **E**
- 497.700 : FRITILLARIA KITTANIAE** * Turkey. Ex O. Sonderhausen 1310 & 1318. (From type-locality colls. made on Ole Sonderhausen's last trip. This is an odd, variable entity, like several recently described species doubtfully deserving specific status. Thought by some to be intermediate between *F. carica* & *F. pinardii*, Henrik Zetterlund thinks it may be derived from *F. carica* & *F. ehwesii*, resembling the former in shape & size but with the latter showing in the green & brown stripes, which can be most striking in some clones. Well worth selecting from seed, though a proportion will be more or less plain *F. carica*.) (10) **E**
- 497.905 : FRITILLARIA LATAKIENSIS** * Turkey, Hatay, Yayladag. Ex R.& R. Wallis 93-17. (Mainly native to the oak scrub area of the adjacent NW corner of Syria, this species, considered to be allied to both *F. assyriaca* & *F. acmopetala*, is little-known in cultivation and in the wild. Slim untesselated purple-brown bells, yellow-green inside, on narrow-leaved, 20cm. stems.) (10) **E**
- 498.510 : FRITILLARIA LUSITANICA** * Spain, Granada, Sierra Nevada, below Penones de San Francisco. 2400m. Open dryish, NW-facing slope. (A little seed from Norman Stevens of this superlative high altitude form of this species. We first saw in the wild in 1970 but have never located it since, when we have been in the area to collect seed. In the 1970's, Paul Furse told us that the name "*F. nevadensis*" could be applied to this population but we have never been able to trace its origin or validity. Several, very large, elongated, grey-green bells variably striped & chequered with maroon on 15cm stems with narrow, curling, greyish leaves. By no means easy to maintain in cultivation, this is the first time we have listed it since we started issuing seed-lists in 1983.) . . (10) **E**
- 499.010 : FRITILLARIA MELEAGRIS** * No data. An elegant, easy garden-plant in the UK, often sowing itself. Native to S England across central Europe to S Russia, often in the flood plains of rivers. Seed from both purple-chequered & white forms. (20+) **A**
- 499.401 : FRITILLARIA MESSANENSIS (subsp. messanensis)** * Greece, Pieria, Oros Olimbos above Vronidou. 1000m. Steep, stony, limestone slopes. (The classic form of this species with the upper leaves in a whorl of 3 above the nodding bells, variably chequered with brown-purple & expanding below their elegant, pinched-in waists. Not nearly so easy to grow as the northern *F. messanensis* subsp. *gracilis*, this is the first time we have listed seed since our wild colls. of the 1980's.) (15+) **D**
- 499.450 : FRITILLARIA aff. MESSANENSIS (subsp. messanensis)** * Croatia, Biokovo Planina, above Tucepi. 900m. Among limestone boulders. (A most intriguing plant raised from a small seed collection we made in 1990, under our field number 11944. Subsequently misidentified by us and listed once as *F. montana*, under the population ref. 500.301. At the time, we were quite sure this was not *F. messanensis* subsp. *gracilis* & the habitat seemed right for *F. montana*. This it certainly is not but neither is it quite right for anything else. It actually most resembles the stock we have of the Greek *F. mutabilis*. A fine thing, variable in the maroon chequering on its big bells, which have striking, brilliant green fascia of varying width on the outer segments.) (10+) **D**
- 499.700 : FRITILLARIA MESSANENSIS subsp. GRACILIS** * Bosnia & Hercegovina, W of Trebinje. 500m. Among *Quercus* scrub over limestone. (Untesselated, chestnut-brown bells, edged with gold. Very hardy & one of the finest, most vigorous species with us, though never numerous in the wild. Definitely worth trying outside in the UK, in a sunny, well-drained site.) (20+) **B**
- 499.701 : FRITILLARIA MESSANENSIS subsp. GRACILIS** * Bosnia & Hercegovina, Bjelasnica (NE of Dubrovnik). (20+) **B**
- 500.300 : FRITILLARIA MONTANA** * Macedonia, Galicica Planina, above Trpjeca. 1600m. Exposed, dry, limestone slopes. (A slender, dwarf form of this variable, widespread group. Globular, brownish bells & bulbs with a stoloniferous habit.) . (15+) **C**
- 501.200 : FRITILLARIA ORIENTALIS** * Full data not available but the genuine species from material collected in the Caucasus by M. Pavelka & grown by N. Stevens. An obscure, little understood plant in the confusing *F. montana* group, where names have been much misapplied. The synonym *F. tenella* is appropriate - slender, 20-30cm. stems with many, linear leaves, the uppermost in a whorl of 3, incline at an angle to hang out up to 5 dark bells, densely chequered brown-purple outside & reddish inside. . . . (10+) **E**
- 501.205 : FRITILLARIA ORIENTALIS** * No data. From stock grown by Martyn Rix. A little different to the above . . . (10+) **D**
- 501.210 : FRITILLARIA ORIENTALIS** * No data. From stock grown by Ron Beeston as *F. tenella*. (10+) **D**

Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 501.400 : FRITILLARIA PALLIDIFLORA** * Kazakhstan, Khrebet Tarbagatai. Ex a J. Ruksans coll. (From a coll. of this splendid Central Asian species, made in this seldom-visited range, on the Sinkiang border N of the Dzungarian Ala-Tau. About 30cm. high with broad, grey leaves & big pale-yellow bells. One of the finest & most satisfactory to grow outside in the UK. (15+) C
- 501.410 : FRITILLARIA PALLIDIFLORA** * No data. From long-cultivated British stock of this reliable species. (20+) B
- 501.801 : FRITILLARIA PINARDII** * Turkey, Denizli, Honaz Dag. 1650m. Stony clay over limestone. (This is good - a very neat plant & an excellent grower with us. Dwarf with yellow bells, which mature to rust-red. Suspiciously like *F. carica* at first glance but the altitude & habitat seem wrong for this. Norman Stevens felt it best we keep it under *F. pinardii* (though we think he has changed his mind now) so we'll stick with this for the present. *Fritillaria* is not so clear-cut as many growers imagine.) (10+) C
- 502.010 : FRITILLARIA PONTICA** * No data. A plant of moist shade in the woodlands of Bulgaria & NE Turkey, so, not surprisingly, one of the best to grow outside in the UK. Big, soft-green, brown-tinged, round-shouldered bells. (20+) B
- 502.102 : FRITILLARIA PONTICA var. SUBSTIPELATA** * Greece, Lesbos, between Keramia & Agiassos. c.350m. In terra rossa on steep slope half-shaded by *Platanus*. Ex D.M. Hoskins 97-1. (A superlative island-race adapted to much warmer, drier habitats than the mainland type-race. In this coll., it is a taller, more slender plant with narrower foliage than the mainland ones. Longer, waisted, pale-green bells heavily blotched with purple-brown at the tips inside. A very fine thing, rare in cultivation.) . (10+) D
- 502.310 : FRITILLARIA PYRENAICA** * No data. An excellent garden-plant in the UK. Endemic to the mountain meadows of the wet, W Pyrenees. Broad, dark purple-brown bells, opening at the mouths to show the greenish yellow interiors. (15+) B
- 502.400 : FRITILLARIA RADDEANA** * Iran, Gorgan, W of Bojnurd. 1200-1500m. Limestone valley. Ex P. Furse 8953. (From one of the seed & bulb colls. (PF 5162, etc.) made by Paul Furse in 1964 & 1966, in & around what was then the royal hunting reserve (now a national park) in Gulestan. Like a dwarf, primrose yellow version of *F. imperialis*. Small enough for a pot or the bulb-frame but growable outside in the UK though it flowers early, so protection safeguards both flowers & seed-set.) (10+) C
- 502.401 : FRITILLARIA RADDEANA** Turkmenistan, Kopet Dag, Arvaz valley. (Cultivated UK stock seems almost wholly derived from the N Iran P. Furse colls. This is wild collected seed from the other side of the border.) (10+) D
- 502.700 : FRITILLARIA RUTHENICA** Russia, (formerly Mordovskaya ASSR), Penza district. (A wild coll. of this seldom-seen, northern species, made for Janis Ruksans in the Volga basin, SE of Moscow & N of the Caspian. In the *F. orientalis* group & closest to the equally obscure *F. orientalis* (*q.v.*), from which it is easily distinguished by the curled, cirrhose tips of the upper leaves. Though this name is sometimes misapplied to other members of this group in cultivation, we grew the genuine plant years ago from material given to us by Paul Furse but originating from Moscow Botanic Garden. A very elegant thing it was with narrow leaves & dark maroon-red, chequered bells. It should be a plant which is possible in the open garden in the UK.) (15+) D
- 502.760 : FRITILLARIA SEWERZOWII** * No data. An exciting, distinct Central Asian species, with affinities to *F. imperialis* & to *Lilium*. Split by some into the monotypic genus *Korolkowia*. We have always found it difficult but others grow it successfully. This seed is from Germany : it may enjoy a more continental climate. Like no other in its pendant, narrow bells with widespreading tips to the segments of brilliant yellow-green to blackish brown. About 30cm. or more high with broad, grey-green leaves.) (10+) D
- 502.805 : FRITILLARIA SIBTHORPIANA** * Turkey, Mugla, near Bozborun. (Described in 1809 & 'lost' for 185 years after Sibthorp's type-coll. (meanwhile its name was widely misapplied). Still only known from two localities in the extreme SW corner of Turkey. Distinct from the others with bright yellow bells in its 2 or 3 broad leaves, clasping the 20-30cm. stem.) . . (10+) E
- 503.209 : FRITILLARIA STENANTHERA** Afghanistan, Balkh, S of Mazar-i-Sharif. 2000m. Grassy hillsides. (A Central Asian species in subgenus *Rhinopetalum*, which has generally offered fewer problems in cultivation than some of its allies, though we have not listed seed from it for some years. Several widely flared flowers with dark nectaries, usually in pearly white, pink-tinged to varying degrees, on grey-leaved, 20 cm. stems. These Central Asian *Rhinopetalum* spp. have been successfully grown in the UK by keeping them dry through the winter and not watering until weather warms in spring. It can be risky with young stock.) (10+) E
- 503.500 : FRITILLARIA STRIBRNYI** * Turkey, Canakkale, Gelibolu (Gallipoli). Ex V. Horton & N. Stevens 2067. (Extremely local in SE Bulgaria & adjacent European Turkey, just crossing the Bosphorus into Asia here. Elegant, about 20cm. high with linear, greyish foliage & narrow, glaucous, untesselated, purple & green bells. Slow, seldom available but not so difficult.) . . (10+) E
- 503.601 : FRITILLARIA THESSALA** (subsp. *thessala*) (*F. graeca* subsp. *thessala*) * Greece, Trikala, below Katara. 1500m. Open W-facing slope with *Pinus* & *Juniperus*. (Quite an even population & a distinct enough species here in the central Pindus. Big, long bells, dimly chequered with brown-purple hang below the topmost whorl of 3 broad, grey-green leaves.) (15+) B
- 503.602 : FRITILLARIA THESSALA** (subsp. *thessala*) * Greece, Ioanina, Oros Smolikas above Agios Paraskevi. 1500m. Open pasture on limestone. Ex P. Christian & A. Hoog 880 (Variable in ghostly chequering but not in other characters.) . . (15+) B
- 503.700 : FRITILLARIA THESSALA** subsp. *IONICA* (*F. ionica*) * Greece, Kerkira, Pantokrator. Ex an E Sewell coll. (Doubtfully separable from mainland populations but we retain the name for the Corfu island-race, which is fairly consistent in its single green bells just touched with a purple or pink tessellation on the margins. A good grower in the UK.) (20+) C

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
B : \$3.00 ; £2.00 ; DM5,- ; FF18.- D : \$5.00 ; £3.50 ; DM9,- ; FF32.- F : \$9.00 ; £6.00 ; DM16,- ; FF55.-

- 503.800 : FRITILLARIA TUBIFORMIS** (subsp. *tubiformis*) * France, Hautes-Alpes, Pic de Gleize NNW of Gap. 1800m. Among *Helictotrichon* on steep, SE-facing limestone slopes. (One of the finest alpine species with huge, fat, chequered, brown-purple bells on short stems. Absolutely hardy & better grown cool in a frame or even a raised bed outside than cooked under glass, though this population from a summer-dry site seems more accommodating than those from moister, meadow-habitats.) (15+) C
- 504.210 : FRITILLARIA TUNTASIA** * No data but endemic to the islands of Kithnos & Serifos in the Kiklades, off the coast of Attica in Greece. A somewhat taller, more slender plant than the allied, mainland *F. obliqua* with greyish leaves more evenly distributed up the 20-30cm. stems & up to 5 flowers. There seems confusion between concepts of the two in cultivation and it appears this is a very variable entity in the wild. We have no stock of *F. tuntasia* derived from wild material but should be able to list authentic seed of *F. obliqua* from a wild coll. by next year. The latter is most distinct. We have some excellent seed this year of this strikingly beautiful plant, whose conical bells are virtually black with a glaucous bloom outside. (15+) C
- 504.700 : FRITILLARIA WHITTALLII** * Turkey, Antalya, SW of Elmali. 1600m. Opening among *Cedrus* in pocket of black soil mixed with limestone talus. (Exceptionally local, this appears limited to patches of humus-rich scree at about the tree-line of cedar-forest in Antalya & Isparta provinces. Elegant with linear leaves & wide pale-green bells, tessellated with purple.) (15+) D
- 507.300 : GAGEA FIBROSA** * Turkey, Hatay, E of Belen. 1250m. Stony areas & fissures on limestone outcrop. ("One of the largest & most striking" writes Martyn Rix. Starry, bright-yellow flowers with long perianth segments, which persist in seed.) (20+) B
- 509.301 : GALANTHUS REGINAE-OLGAE** Greece, Lakonia, Oros Taigetos, Profitis Ilias. 1400m. Light shade under *Platanus* & *Pinus*. Ex D.M. Hoskins 98-22. (A beautiful snowdrop, flowering in autumn before the leaves appear) (10+) C
- 531.802 : GLADIOLUS ANATOLICUS** * Turkey, Adana, Nur Dag, above Hasanbeyli. 1100m. Stony clay among *Quercus* scrub. (A handsome, purple-pink S Turkish endemic, 30-40cm. high, related to the Cypriot *G. triphyllus*. Easy in a bulb-frame.(15+) B
- 531.902 : GLADIOLUS ANTAKIENSIS** * Turkey, Hakkari, Zab gorge at Bagisli. 1500m. Among *Quercus* on stony slopes. (Confined in Turkey to the oak-scrub areas of the SE corner. Fine carmine-pink flowers, marked white. About 50cm. high. . . . (15+) B
- 531.949 : GLADIOLUS aff. ANTAKIENSIS** * Turkey, Hakkari, Beyez Dag. 1800-2000m. Ex a N. Stevens coll. (Probably a new species but the E Turkish gladioli are a taxonomic mess and it would be rash to publish it as such without a complete review of the genus there. Based on a few herbarium sheets, Kit Tan's account does not work well in the field. Hamilton's *G. antakiensis*, only published in 1983, must be taken to cover diverse dry-growers. From a little-collected corner of Turkey, this is an attractive, distinct, dwarf plant, only about 20cm. high, with 3-5 flowers, occasionally white but mainly soft-pink, darkening with age.) (8) E
- 532.601 : GLADIOLUS KOTSCHYANUS** * Turkey, Van, NNW of Baskale. 2800m. Along seasonal, snow-melt stream. (A soft-lilac, 30cm., alpine-meadow form of this characteristic species of spring-wet, grassland habitats in cold E Anatolia.) (20+) B
- 532.602 : GLADIOLUS KOTSCHYANUS** * Turkey, Erzurum, Kop Dag. 2400m. Among *Salix* in wet-flush. (A good, deep-crimson form, originally collected as a dwarf variant but it now reaches 40cm. in cultivation.) (20+) B
- 532.705 : GLADIOLUS MICRANTHUS** * Turkey, Mugla, SE of Altinyayla. 1560m. Open, rocky, serpentine slope. Ex a N. Stevens coll. (An extremely fine species, little known in cultivation & from a very limited area in SW Turkey. Norman thinks this is the best of the W Turkish *Gladiolus* species. Maybe closest to the more eastern *G. atroviolaceus* and *G. persicus*, with about 3, rather glaucous leaves with parallel veins and up to 6 rich violet-purple flowers on stems of about 30cm.) (10+) E
- 532.810 : GLADIOLUS PALUSTRIS** * No data. An attractive plant very seldom seen in UK gardens, though it is utterly hardy and well-adapted to the climate. Distributed, usually in moist meadows, here and there though central & E Europe, from SE France to the Ukraine. About 30cm. high with a loose, secund spike of up to 6 purplish red flowers in early summer. (15+) B
- 548.010 : HACQUETIA EPIPACTIS** * No data. A delightful, dwarf umbellifer, local but characteristic of the early spring flora of the wooded, limestone karst of south Central Europe, N from NE Italy & Slovenia into S Poland. Miniature astantia-heads of little yellow flowers, surrounded by big, varnished, greeny gold bracts open at ground-level before the 3-partite leaves unfold, staying in fine condition over a long period as the stems elongate to about 15cm. Compact, choice but easy in any shady spot.) (15+) C

Hegemone lilacina : a treasure from the Tien Shan

- 554.050 : HEGEMONE LILACINA** Kazakhstan, Tien Shan. 2900m. H. Fuchs coll. (An exquisite, dwarf, snow-melt, alpine member of the *Ranunculaceae*, allied to *Trollius* and characteristic of the higher ranges of Central Asia. With such a wide range it is variable both in the substance & colour of its flowers, which can be almost semi-double in appearance and flushed with a lucent, ethereal lavender-blue, on 10cm. stems above cut, lobed leaves. Beautifully illustrated, growing in this area, on page 279 of the September, 1999, AGS Bulletin. It is being successfully grown in the UK by a few and, coming from "wet, cold, alpine meadows" is said to require "a fairly heavy, perpetually moist soil." It sounds suitable for ground-cover planting in our own cold, wet, Welsh garden. We jest. It is early days to write of cultivation. "No pains would be too much to make it happy" wrote Farrer of this "capricious little creature", "the jewel of all", An unprecedented opportunity to acquire really fresh seed collected in August, 1999.) . . (15+) F

Helleborus : 1999 seed collections from Georgia and the Balkans

We list a representative range of this genus, all 1999 collected & many from wild colonies. This is largely possible through the efforts of Will McLewin, not only with his own material from SE Europe but also in arranging collections by local botanists in Georgia, a complicated operation. If you are interested in this genus, order & sow the seed without delay. As our 1999 list is being sent out a little later than would have been ideal, do note that late-sown seed (after the weather has cooled down in autumn), may not germinate until the following winter. Soaking seed in hot (not boiling) water and leaving it at room temperature for a few days before sowing to ensure it is fully imbibed may help germination the first winter. Thereafter, place it at normal outdoor temperatures. Like almost all species in this list, these germinate at low-temperatures. Keeping seed warm after sowing will inhibit germination. For more information & accounts of each species, refer to 'Hellebores' by Brian Mathew or 'The Gardener's Guide to Growing Hellebores' by Graham Rice & Elizabeth Strangman. While we use the classification

proposed by the former (and accepted by the latter), it must be appreciated that this is only a reasoned compromise. We stress that the species of Section *Helleborastrum* seldom comply with the main diagnostic criteria used to divide them into the artificial concept of 'species' - flower colour, free or joined carpels, overwintering leaves and especially leaf characteristics are not consistent features. Most colonies are extremely variable and there is a great deal of intergradation. Such problems are being considered in an ongoing series of articles, by Brian Mathew & Will McLewin in 'The New Plantsman'. Many of the wild hellebores are plants of continental climates, used to snow-cover in winter & dry conditions in summer. Consequently, they are not always so easy in wet, temperate climates, such as that of the UK. Choose a well-drained site for the central & E European ones. Seeds from the much more accommodating garden hybrids, influenced by *H. orientalis* from the moister, Black Sea area, will be found listed in the section dealing with 'Garden Hybrids & Selections' towards the end of this list.

- 559.810 : HELLEBORUS ARGUTIFOLIUS** (*H. corsicus*) * No data. Endemic to Corsica & Sardinia but a splendid, reliable garden-plant throughout the UK. Leathery, overwintering, spine-edged leaves & huge, 1m. high heads of pale-green cups. . . (20+) **A**
- 560.010 : HELLEBORUS ATORRUBENS** * Slovenia, near Novo Mesto. Ex a W. McLewin coll. (Variable in foliage & colour, this is one of the most local & least-known Balkan species. Not all are purple but it can produce some striking purple-flowered plants with purple-tinged leaves. The name is still misapplied in gardens to hybrids, usually of *H. orientalis* subsp. *abschasicus*. This is 1999 cultivated seed, though the parents are authentic, it may have crossed in cultivation. No wild seed in 1999.) (15+) **C**
- 560.628 : HELLEBORUS CYCLOPHYLLUS** * Macedonia, Bistra Planina. (Cultivated seed collected from a particularly fine, selected form of this species, typical of the cold interior areas of Macedonia & Greece. Suited to cold, continental climates, less easy in the mild, damp UK. Leaves, backed with silvery hairs in spring, seldom overwinter. Big, clear-green flowers.) (10+) **C**
- 560.802 : HELLEBORUS DUMETORUM** Hungary, Vertes Mts. W of Budapest. W. McLewin coll. (A graceful plant, distributed from SE Austria & Slovenia across Hungary to Romania. A distinct, dainty species of mature, deciduous woodland. Deciduous leaves, usually finely toothed, appear with the small, somewhat conical green flowers, pendant on slender pedicels.) . . (10+) **D**
- 561.021 : HELLEBORUS FOETIDUS** from 'WESTER FLISK' * Our British native caulescent hellebore with dark, divided foliage & stout heads of many green, purple-rimmed cups. This is originally from a Scottish selection with narrow leaf segments, sometimes tinged red, & beetroot-red stems. This & the following forms may vary a little when grown from seed, which can be slower to germinate than others (except *H. vesicarius*), sometimes waiting for a second winter, even if sown freshly.) (15+) **B**
- 561.502 : HELLEBORUS MULTIFIDUS** (subsp. *multifidus*) Croatia, Velebit Planina, near Krasno. W. McLewin coll. (Core species of a confusing, essentially Yugoslavian, complex of cut-leaved hellebores with pendant, green-tinged yellow flowers. The currently recognized taxa intergrade both with each other & with adjacent species. This is from a superlative colony with beautiful divided foliage. These inland, deciduous species do best in the UK in an open, well-drained situation.) (10+) **D**
- 561.705 : HELLEBORUS MULTIFIDUS** subsp. *ISTRIACUS* Croatia, Istria, Ucka. W. McLewin coll. (While this subspecies tends to intergrade with *H. odorus* further N. This coll. is from a population in the woodlands on the highest mountain in Istria, well into the Istrian peninsula. It should produce less variable seedlings, which can certainly be called authentic *H. m. istriacus*.) (15+) **D**
- 561.806 : HELLEBORUS NIGER** Slovenia, Bohinj. W. McLewin coll. (The classic Christmas Rose with huge white, bowl-shaped flowers above low clumps of dark, glossy green, divided foliage. This wild seed is from the outstanding population, which Will discovered & called 'Sunset'. A large percentage of the plants have flowers which flush to red shades as they mature.) (15+) **C**
- 561.807 : HELLEBORUS NIGER** Slovenia, SE of Jesenice. W. McLewin coll. (From another population in the Julian Alps, here on the N slopes of the Triglav. Will's 'Sunrise' - a good percentage are pink-flushed & mature to red. Lovely things.) . . . (15+) **C**
- 562.405 : HELLEBORUS ORIENTALIS** Georgia, N of Tblisi. From a superb colony with rounded, cream-coloured flowers. Will visited some of these Georgian populations in flower in 1996. Having seen his photographs of this, we can see where so-called hybrid clones, such as 'Sirius' may have their origins - in fact rather than having progressed, they may have regressed. These Georgian colls. are more likely to produce reliable plants for UK gardens than the Balkan species with more specialized needs.) (15+) **E**

- 562.520 : HELLEBORUS ORIENTALIS subsp. GUTTATUS** Ukraine, Matzesta near Sochi. (An exciting wild-collection from the forests along the NE corner of the Black Sea, near the border of Abkhazia. As far as we know, no authentic wild-collected material of this spotted race has been seen in western gardens. Plants recently introduced from Georgia were from stock grown in a botanic garden. According to Georgian botanists, this subspecies does not occur in Georgia. We are told that it is only known from this area. Whether this or the preceding taxon merit subspecific status is another matter. In both cases, they appear to be merely colour variants occurring in variable colonies. The Russian collector describes the plants here as both spotted and unspotted on a green or cream-white ground (this colour possibly due to the age of the flower), so expect a wide range of diversity.) (15+) E
- 562.600 : HELLEBORUS PURPURASCENS** Hungary, Bukk Mts. W. McLewin coll. (Will tells us there are some very fine dull-purple clones in these populations of this neat, predominantly Hungarian species, very little-known in cultivation. Comparatively dwarf & deciduous, it is more resentful of winter wetness than some & needs a well-drained site in the UK.) (10) E
- 562.621 : HELLEBORUS PURPURASCENS *** Romania. No further data. (Cultivated seed from a superb, selected form from one of the more eastern populations of this continental-climate species. While this is garden seed and there is a possibility of some hybridization, it should reliably produce some desirable, distinct, compact, purple-flowered plants.) (10) E
- 562.804 : HELLEBORUS TORQUATUS** Bosnia & Hercegovina, N of Bosanski Petrovac. 500m. Among scrub & on open, grassy slopes. W. McLewin coll. (A superlative colony here in the 'Bihac Pocket' at the N tip of Bosnia - different to the southern populations ascribed to *H. torquatus* in Montenegro. Essentially *H. multifidus* subsp. *multifidus* with variable inky-purple flushing & veining on the flowers. Some exquisite things here - one is illustrated on p.106 of Brian Mathew's monograph.) . . . (10+) E
- 562.811 : HELLEBORUS TORQUATUS *** No data. Cultivated seed from a very fine, selected clone with from one of the populations in the Kolasin & Andrijevic areas of Montenegro. The parent has the characteristic cup-shaped flowers covered in a heavy blue-grey bloom outside. Greenish interiors. May have crossed to some extent with other members of Section *Helleborastrum*. . (10+) D
- 563.001 : HELLEBORUS VESICARIUS** Turkey, Gaziantep, hills between Gaziantep & Sackagoz. c. 1000m. Among sparse scrub in terra rossa over limestone. N. Stevens coll. (A 1998 wild coll. from this extraordinary relic, like no other in its inflated seed-capsules, up to 15cm. long. Summer-dormant & usually best suited to the bulb-frame in the UK. Seed germinates irregularly. The cucumber-like seedlings usually go dormant without producing true leaves. These first-year, dormant roots can be lost through overdrying & this is the most critical period. Viability of seed lasts for many years so do keep ungerminated seed.) . . . (10+) D
- 563.254 : HELLEBORUS VIRIDIS subsp. OCCIDENTALIS** UK, Wales, Carmarthenshire. R. Wallis coll. (Wild Welsh seed of the little British race, which so readily crosses in gardens. Distinct, dark, deeply toothed leaves & pendant, green cups.) . (10+) C
- 566.020 : HEPATICA NOBILIS**. Czech Republic, near Prague. Deciduous woodland on karst. Z. Zvolanek & J. Carruthers coll. (From a very variable colony of this beautiful, little central European woodlander, well known to Zdenek, who has made many fine selections from it. Some garden seed of these is included but most of this is wild-collected and stored since receipt in a refrigerator. We hope this may ensure good germination. Mainly from pale to deep blues but with some fine pinks as well.) (20+) C
- 570.950 : HYACINTHELLA ACUTILOBA *** Turkey, Sivas, Ziyaret Tepe. 2100m. Thin, limestone gravel on exposed ridges. (Wiry, 10cm. stems with little pale to mid-blue bells rising from 2-3 distinctively broad leaves. A central Anatolian endemic in this delightful & interesting genus - all are on a similar pattern & ideal for the alpine-house in stature & requirements.) (15+) C
- 571.000 : HYACINTHELLA ATCHLEYI *** Greece, Evia, mainland hills opposite Halkida. 200m. Open limestone slopes with sparse scrub. (Lots of little, clear-blue bells on wiry, 10-15cm. stems in early spring. Only grows around here & Thebes.) . . . (15+) C
- 571.160 : HYACINTHELLA HISPIDA *** Turkey, Nigde, E of Ulukisla. 1500m. Steep, exposed, limestone slopes. (Distinct, hairy leaves & 10cm. racemes of up to 30 blue-violet flowers. Like most in this dainty & neglected genus, a local plant.) . . (15+) C
- 571.201 : HYACINTHELLA LAZULINA *** Turkey, Karaman, SSE of Karaman. c.1100m. Open steppe. (Recent 'split' from *H. heldreichii*, mainly from the area S of Karaman to Gulnar. Glaucous leaves & deepest blue, violet-shot flowers.) . . . (15+) C
- 572.005 : HYACINTHOIDES ALGERIENSIS** (*H. hispanica* var. *algeriensis*) * Morocco, Middle Atlas, ESE of El Ksiba, Tizi-n-Ifar. Ex JWB 89-18A (An attractive Moroccan bluebell, rather like *H. reverchonii* and, like it, often a plant of limestone-fissures. Worthwhile & easily grown under glass. Both John & ourselves are enthusiastic about these disjunct relict bluebells.) (15+) B
- 572.201 : HYACINTHOIDES NON-SCRIPTA** UK, Wales, below Ffostrasol. 150m. Mixed, deciduous woodland. 12.8.98 (From our population of bluebells, most spectacular of native British bulbs, hardly in need of 'conservation' around here.) . . (20++) A
- 572.300 : HYACINTHOIDES REVERCHONII *** Spain, Jaen, Sierra de Cazorla, above source of the Guadalquivir. 1400m. Red clay pockets on limestone cliffs. (An obscure, narrow-endemic but easy to grow here under glass. Alan Edwards grows it outside in Surrey & has had hybrids with *H. non-scripta*. Glossy leaves & distinct, wide-open, rich-blue flowers on 15cm. stems.) (15+) C
- 572.340 : HYACINTHOIDES VICENTINA from WHITE FORM *** Only known from the Cabo S. Vicente in S Portugal. Ex a V. Horton coll. (White form of this disjunct relative of *H. italica*, distinguished by its yellow, instead of blue, pollen.) . . . (15+) C
- 572.600 : HYACINTHUS ORIENTALIS subsp. CHIONOPHILUS *** Turkey, Sivas, Ziyaret Tepe. 2100m. Limestone crevices & among rocks. (Dwarf, few-flowered hyacinth - a snow-melt alpine from the high mountains in S Central Turkey. Pale slate-blue, waxy flowers with long perianth lobes, on short stems. Stays neat here under glass & has the most exquisite scent. This is so seldom seen in cultivation that we fear it suffers from an unwarranted association with the bloated garden hybrids.) (15+) C

Iris : some easier junos and seldom offered reticulatas

The 'junos' (Subgenus *Scorpiris*) we list this year are all comparatively easily grown ones which will be no trouble in a bulb-frame or in pots. We also list seed from several 'reticulatas' (Subgenus *Hermodactyloides*). This is very seldom available. It is extremely difficult to collect in nature & rarely

sets in any quantity in cultivation. *I. histrioides* does better outside in the UK but the others are suitable for the bulb-frame. Other *Iris* species, particularly those in Section *Iris* and Series *Spuriae* will be included in our next list. The best reference for all the species is 'The Iris' by Brian Mathew.

- 584.320 : IRIS AUCHERI** (Subgen. *Scorpiris*) * No data. Mainly from a variable Diyarbakir population & a lilac-blue one from Van. One of the easier 'junos' to grow in the UK. 15-30cm. high with flowers in shades from mid-blue to violet blue. (8) C
- 588.408 : IRIS HISTRIO** (subsp. *histrio*) (Subgen. *Hermodactyloides*) Lebanon. R. & R. Wallis 99-19. (An exquisite, early-flowering species native from the Lebanon up through Syria into S Turkey, usually in oak scrub. Pale to mid-blue flowers, ridged with yellow and mottled with darker blue on the falls. Well suited to cultivation in the alpine-house or bulb-frame, where it appreciates a warm summer rest. This is the first time we have been able to list wild-collected seed and it may well be the only time !) (8) E
- 588.809 : IRIS HISTRIOIDES** (Subgen. *Hermodactyloides*) * No data. From the clone 'Lady Beatrix Stanley', which according to Brian Mathew is fairly typical of the wild plant but seed has been open-pollinated in the UK and may produce some hybrids. One of the most sumptuous of dwarf, bulbous irises. Its large violet-blue flowers, heavily spotted on the falls, push through the bare earth in early spring. The species is endemic to a small area of Samsun & Amasya provinces in NW Turkey at between 1300 & 1750m., in the coniferous forest zone of a much moister area than *I. histrio* & most of its relatives. Growable outside in the UK.) (8) D
- 590.270 : IRIS KOLPAKOWSKIANA** (Subgen. *Hermodactyloides*) * No data. A very odd species, placed in this subgenus with the 'reticulatas' & resembling them in its bulbs but somewhat 'juno-like' in its narrow, channelled leaves. Pale blue or purple flowers with rich, red-purple blades below the orange-yellow ridge of the falls. A plant of open, stony slopes at up to 1300m. in the Tien Shan, this has always been a challenge to grow & maintain. A few hand-pollinated Canadian seeds from Alan McMurtrie. (8) F
- 590.900 : IRIS MAGNIFICA** (Subgen. *Scorpiris*) Uzbekistan, Agalik, Seravschan. (A wild coll. of this splendid Central Asian, which we hope may show some variation on the following, more generally cultivated, form.) (10+) C
- 590.910 : IRIS MAGNIFICA** (Subgen. *Scorpiris*) * No data. A splendid Central Asian, possibly the easiest juno to grow (even outside in a sunny bed) in the UK. Large pale lavender flowers & glossy, green leaves on stout stems of 60cm. or more. (10+) B
- 590.911 : IRIS MAGNIFICA from WHITE FORM** * Hand-pollinated by A. McMurtrie from an absolutely pure white. (8) D
- 595.820 : IRIS RETICULATA** (var. *reticulata*) (Subgen. *Hermodactyloides*) * Armenia, near Lake Sevan. Hand-pollinated Canadian seed of a distinct form, originally collected in the E Caucasus at the northern limits of the species-distribution. Wide segments of red-purple which age to lighter, pinker shades. See the garden-hybrid section at the end of this list for hybrids using this form. 'Reticulata' seed, which we hardly ever have available, often takes two winters to germinate. (5) E
- 600.415 : IRIS UNGUICULARIS subsp. CARICA** (var. *angustifolia*) Greece, Lakonia, S of Areopoli. M. Jope 98-08. (The smaller, narrower leaved eastern race of the classic winter-flowering iris, excellent outside in most of the UK, in a well-drained sunny site. Beautiful, deep violet flowers rise on long tubes among the tufts of grassy foliage, on and off all winter with a profusion as spring approaches. The S Peloponnese forms tend to be dwarfer than those from further N and incline to the Cretan race.) . . . (10+) C
- 600.910 : IRIS VICARIA** (Subgen. *Scorpiris*) * No data. Central Asian, sometimes confused with *I. magnifica* : almost as robust & growable as it is. About 50 cm. high with pale blue-violet flowers, crested with white & blotched with yellow on the falls. (8) C
- 601.110 : IRIS WILMOTTIANA** (Subgen. *Scorpiris*) * No data. From the Pamir-Alai but described originally from material grown in the UK in 1901. Very rarely seen today - the plant grown as "*I. willmottiana alba*" appears to be a form of *I. bucharica*. 15-20cm. high, with glossy leaves & white-crested, soft-lavender flowers, blotched with white & deeper purple on the falls. (8) E
- 630.120 : LEUCOJUM AUTUMNALE** (subsp. *autumnale*) * No data. Delightful & dainty with little white, pink-tinged bells dancing on dark stems before the leaves appear, in autumn. Possible in a sunny, well-drained site outside in the UK (20+) B
- 630.480 : LEUCOJUM TINGITANUM** * Morocco, Rif, above Chaouene. Ex the J. Blanchard (JWB 88-02) & T. Norman colls. (A fine, spring-flowering plant, considered a doubtful species by many, until recently rediscovered & introduced. Large white bells on 20cm. stems. May be closest to *L. nicaeense* & proving as easily grown in similar conditions in the alpine-house.) . . . (10+) D
- 632.600 : LILIUM CANDIDUM** * Greece, Lakonia, W of Sparti. 500m. Steep, limestone slopes among *Euphorbia*, *Phlomis*, etc. (Incomparable, pure-white lily. Older cultivated stock is sterile & full of virus. This is from stock maintained here from our 1983 wild seed coll. It survives outside in our wet climate but we grow it under glass for seed. Sow as soon as you can. It usually comes up quickly here. If not sown early enough, like the others, it will just wait till the next season to germinate. Several other *Lilium* species from Europe, as well as American & Asian species, will be included in our next, winter list) (10+) C

After about a decade, we list seed from the scarlet lily again

634.401 : LILIUM POMPONIUM * France, Alpes-Maritimes, Montagne de Maurel, NE of La Mure. 1000m. Among scrub in steep-sided limestone gully. (Establishing an adequate breeding stock of this superlative, little lily has been a long project but we now have a substantial number of different clones, originating from wild seed, growing well under cover and likely to provide us with a reliable source of seed in future. This is perhaps the most restricted & local of the European lilies in the wild. Its purplish stems set with many, twisting, linear leaves rise only to about 50cm. and can carry up to 10 scarlet flowers. As Woodcock & Stearn remark, "no-one who has suddenly come across this jewel in the Maritime Alps, flaunting its brilliant little sealing-wax-red turkscap blooms, with minute black spots, like fairy lamps, is ever likely to forget that moment." It is not so difficult to enjoy it in the garden every year. Joe Elliott grew it well in his Cotswold garden and used to list seed, if not bulbs, regularly in his catalogues but it now seems to have become very scarce in cultivation. It should thrive in a well-drained, sunny site in clay with plenty of limestone chips. A raised bed or the rock-garden is ideal. It is no problem to raise from seed sown in the autumn, so here you are. . . . (10+) **E**

Muscari : not all are easy to grow

687.950 : MUSCARI ANATOLICUM * Turkey, Konya, Sultan Dag. 1760m. Exposed limestone ridgetop. (Appears to be this tiny, recently described species, rather like *M. discolor* in its open-mouthed, white-tipped flowers but easier to flower here.) (15+) **C**

688.002 : MUSCARI ARMENIACUM * Turkey, Gaziantep. Ex a N. Stevens coll. (From a fine, royal-blue form.) (20+) **A**

688.101 : MUSCARI AUCHERI * Turkey, Bolu, near Abant Golu. 1000m. Ex N. Stevens 2541 (A striking bicoloured form of this easily grown species. Mid-blue and white flowers over short, neat foliage. From a cool, moist part of Turkey.) (20+) **A**

688.500 : MUSCARI BOURGAEI * Turkey, Denizli, Honaz Dag, SE of Denizli. 1700m. Gravelly areas on exposed, limestone ridge. (W Turkish, alpine endemic, only recorded above 1500m. Glauous foliage & very dense heads of globular flowers, in mid-blue to violet-blue, with paler lobes, on 10 cm. stems. Not too easy but settling down with us under glass.) (15+) **C**

688.600 : MUSCARI CAUCASICUM * Turkey, Kars, SSW of Sarikamis. 1800m. Stony, igneous slopes. (Very handsome *Leopoldia*, extending across Transcaucasia to NW Iran. About 30cm. high in this form. Striking, amethyst-violet sterile flowers.) (15+) **A**

689.050 : MUSCARI aff. COMOSUM * Greece, Ioanina, N of Konitsa. 800m. Clay over shale. (Will not key-out as *M. comosum* as the bulb tunics are not pink. We successfully dissuaded Kit Tan from describing it as a new species.) (15+) **A**

689.450 : MUSCARI GRANDIFOLIUM * Morocco, Middle Atlas Mts., above Ifrane. 1700m. Red clay on limestone. (Not unlike a large version of *M. latifolium*, but best with some protection as flowers & foliage can be damaged outside, though the bulbs are totally hardy. Fine heads of blue-black flowers from china-blue buds. 20-30cm.) (20+) **B**

689.800 : MUSCARI LATIFOLIUM * Turkey, Balikesir, Kaz Da. 1200m. Openings in coniferous woodland. (A very local species but an easy, well-behaved garden-plant in the UK. Racemes of deepest violet-black flowers from pale-blue buds.) . . . (20+) **B**

689.901 : MUSCARI LONGIPES * Turkey, Sivas, WSW of Hafik. 1300m. Calcareous hills. (Distinct *Leopoldia* with a big tassel of violet, sterile flowers. The pedicels elongate greatly in fruit & the dry stem blows away tumbleweed-fashion.) (10) **C**

690.000 : MUSCARI MACROCARPUM * Greece, Samos, Mt. Vigla. 800m. S-facing walls of old, terraced olive-groves. Ex a D. Hoskins coll. (A gloriously scented species, near *M. muscarimi*, very local in SW Turkey & on some E Aegean islands. Greyish, channelled leaves & clear yellow flowers opening from dull-purple buds on 15cm. stems.) (10) **D**

689.040 : MUSCARI McBEATHIANUM * Turkey, Adana, ENE of Tufanbeyli. 1200m. Open areas among *Pinus* in moist, fine sand. (A charming, delicate, little species with ice-blue to white flowers opening from porcelain-blue buds. We found it in 1985 and it was named in 1988 after our old friend Ron McBeath, at that time responsible for growing *Muscari* at the RBG Edinburgh. Both Kew & Edinburgh have now apparently killed the living material we gave them and it took us over 12 years to build up a sufficiently large stock from our few bulbs to produce enough seed to list. Two generations of hand-pollinated seed (a very fiddly job) have been raised and we now have a breeding-stock of over 100 clones. A splendid crop of hand-pollinated seed this season.) . . (20+) **D**

690.060 : MUSCARI aff. MASSAYANUM (Subgen. *Leopoldia*) * Turkey, Icel, NNE of Mut to Kirobasi, below Zeyrek. 1300m. Openings among scrub, in stony clay. (From the locality given for a Huber-Morath coll. made in the 1950's and identified as *M. massayanum*, this does not wholly match the description of this species. While little material attributable to *M. massayanum* has been seen & it is difficult to assess how much variation the name might be taken to cover, this may well be an undescribed taxon. Cylindrical racemes of violet-tinged buds open to grey-green flowers below a coma of pinkish lilac, rather than lilac-pink, sterile flowers. Channelled, grey-green leaves. Like the next, only increases by seed. Not easy & needs careful watering.) (10) **E**

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- **C** : \$4.00 ; £2.50 ; DM7,- ; FF23.- **E** : \$7.00 ; £4.50 ; DM12,- ; FF41.-
B : \$3.00 ; £2.00 ; DM5,- ; FF18.- **D** : \$5.00 ; £3.50 ; DM9,- ; FF32.- **F** : \$9.00 ; £6.00 ; DM16,- ; FF55.-

Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 690.150 : MUSCARI MIRUM** * Turkey, Mugla, SE of Altinyayla. 1650m. Open, stony slope on serpentine ridge. (Recently described & distinct in flower, foliage & seed. Subtle rather than spectacular in dull gold & purple. Not an easy species to maintain and grow well in our experience, it needs care in watering and must be hand-pollinated to set seed.) (10) **E**
- 690.201 : MUSCARI MUSCARIMI** * Turkey, Burdur, W of Yesilova. 1280m. Loose, serpentine talus on open slope. (Local, SW Turkish endemic, always on serpentine in our experience. Grey-green leaves & racemes of greyish-ivory flowers opening from purple-brown buds. Famously scented (deliciously different to *M. macrocarpum*) & esteemed for this for over 200 years.) (10) **C**
- 690.700 : MUSCARI PSEUDOMUSCARI** * Iran, Mazandaran, S of Chalus. 1500m. Ledges on limestone cliffs. (Lovely endemic restricted to the Chalus gorge on the wet, Caspian slope of the Elburz, described as a new species, *M. chalusicum*, in the 1960's, though *M. pseudomuscari* has priority. Refined with heads of china-blue bells, open at the mouths, not pinched in.) . . (15+) **B**
- 691.202 : MUSCARI TENUIFLORUM** * Turkey, Antalya, S of Bakaran. 1200m. Among sparse scrub on limestone slope. (To 50cm. high & distinct from *M. caucasicum* & *M. comosum* in the black teeth of the fertile perianths. Violet sterile flowers.) . (15+) **A**
- 691.250 : MUSCARI aff. TENUIFLORUM** (Subgen. *Leopoldia*) * Turkey, Hakkari. Ex a N. Stevens coll. (A distinct taxon, which merits recognition at some level and a name. It seems to be confined to both sides of the ranges of Kurdistan, along the border of Turkish Hakkari & Iran, possibly extending S into N Iraq. Paul Furse dubbed it the 'bluehot poker' & we still grow an Iranian bulb, collected in the 1960's, which is self-sterile. The tallest of all, almost up to 1m. in the wild & at least 60cm. here, this can be keyed-out to *M. longipes*, as the lower pedicels elongate in seed & it is then intermediate between these two species.) (10+) **C**

Narcissus : wild daffodils from Wales to the edge of the Sahara

Narcissus is very much a western genus, spread S from Britain to NW Africa and centred on Spain. Many species from higher rainfall areas or moist, montane habitats in Spain & Portugal grow well outside in UK gardens. Some, however, from drier areas, especially the Moroccan ones, need a dry, summer rest. These are ideal alpine-house or bulb-frame plants, especially valuable as many flower during winter & very early spring. Many of the wild collections from which the cultivated seed has been grown, were made by John Blanchard (JWB), whose lifetime's work with this genus is unrivalled. We follow the nomenclature used in his monograph, 'Narcissus - A Guide to Wild Daffodils'. This can be described as an informed gardener's compromise as far as names are concerned. A thorough botanical revision of the genus would appear to be badly needed

but it would be very unlikely to suit both botanists & gardeners, so it is perhaps better unwritten. Many species are both extremely variable & ill-defined. We have to deal with a diversity of taxonomic concepts. The leading current 'splitter', the Spanish botanist Fernandez Casas, whose work recalls that of Pugsley with the trumpet daffodils, has now moved on to the Moroccan populations, where previously we had only Maire's 'lump'n'split' names. Most descriptions are wholly inadequate to define the taxon concerned & keys just do not work when applied to wild populations. Gardeners, however, will find the sum of characteristics in most populations distinct enough. Names are often a matter of opinion. 'Splits' are shorter to write out but it is very much a question of 'take your pick' concerning the names you wish to apply to many populations.

- 693.800 : NARCISSUS ASSOANUS** (*N. juncifolius*, *N. requienii*) * France, Haute-Pyrenees, Vallee d'Ossoue. 1500m. S & W-facing limestone cliffs & slopes. (Beautiful, little, clear yellow jonquil. A delight in a pot but accommodating in the garden.) . (10+) **B**
- 693.850 : NARCISSUS ASSOANUS** * Spain, Teruel, Travesa. Ex J.W. Blanchard 87-15 (A dwarfer, smaller-flowered variant from further S. This looks rather like *N. gaditanus* but is much easier to flower well. Michael Salmon calls this "var. *minor*".) (10+) **C**
- 694.100 : NARCISSUS ATLANTICUS** * Morocco, High Atlas, above Amizmiz. 2000m. Among scrub, in soft, moist loam. Ex the 1936, E.K. Balls type coll. (A very local plant in the wild &, after over 60 years, still rare in cultivation, where it is by no means easy to grow. Sweetly scented, creamy white jonquils carried singly on 15cm. stems. Distinct from the *N. rupicola* group in its deeper, cup-shaped corona & in the arrangement of the anthers, it most resembles a white version of *N. cuatrecasasii*.) (8) **E**
- 694.305 : NARCISSUS BICOLOR** * No data. Unknown in the wild, though reputedly recently found in the Pyrenees. About 30cm. high with horizontal or ascending flowers. White or cream segments surround the lobed, yellow trumpet. (8) **B**
- 694.800 : NARCISSUS BUJEI** * Spain, Cordoba, Sierra de Cabra. Ex J.W. Blanchard 87-13. (An unexpected trumpet-daffodil quite recently described from southern Spain. Thought by some to be a race of the mysterious *N. hispanicus* but maintained sensibly at specific level in one of the latest Spanish floras. About 30cm. high with concolorous yellow flowers.) (10) **D**
- 695.110 : NARCISSUS BULBOCODIUM var. CITRINUS** * No data. The cool lemon yellow race of hoop-petticoats, mainly prevalent in N Spain & often quite late-flowering. Usually among the best for growing outside in UK gardens, the seed listed this year is from the vigorous colony thriving & self-seeding in Peter Chappell's Hampshire garden, 'Spinners'. (15+) **B**
- 695.400 : NARCISSUS BULBOCODIUM var. GRAELLSII** * Spain, Sierra de Guadarrama. Ex a J.W. Blanchard coll. (Distinct, dwarf, slightly greenish-white race, neglected in literature but proving quite easy to grow in acid soil.) (15+) **D**

A : \$2.00 ; £1.50 ; DM4,- ; FF14,- **C** : \$4.00 ; £2.50 ; DM7,- ; FF23,- **E** : \$7.00 ; £4.50 ; DM12,- ; FF41,-
B : \$3.00 ; £2.00 ; DM5,- ; FF18,- **D** : \$5.00 ; £3.50 ; DM9,- ; FF32,- **F** : \$9.00 ; £6.00 ; DM16,- ; FF55,-

- 696.250 : NARCISSUS BULBOCODIUM var. NIVALIS** * Spain, Avila, Sierra de Gredos, NE of Pico Almanzor. 1800m. In turf on steep, open slopes. (A miniature alpine hoop-petticoat with small, bright-yellow flowers. Utterly different to the *N.b. nivalis* of Maire (now listed under *N. jeanmonodii*) not only in flower but in its thready, upright foliage. Delightful in a pan.) . . . (20+) **B**
- 696.410 : NARCISSUS BULBOCODIUM subsp. OBESUS** * No data. From a very fine, free-flowering form grown by D. Batterham. Dark leaves & rich soft-yellow flowers with large, satisfyingly obese, horizontal coronas. Good outside in UK gardens. (15+) **C**
- 696.600 : NARCISSUS BULBOCODIUM var. PALLIDUS** * Morocco, High Atlas, Tizi Gourane above Amizmiz. 1800m. Schist fissures. (Cultivated seed from our 1982 coll. Recently named *N. jacquemondii*, (*q.v.*), by Fernandez Casas.) (10+) **C**
- 696.700 : NARCISSUS BULBOCODIUM subsp. PRAECOX** * Morocco, High Atlas Mts., Moulay Brahim gorge below Asni. 1000m. Humus-filled pockets on limestone boulders. (A fine, robust race. Big, soft-yellow flowers with narrower, more funnel-shaped trumpets than similarly coloured *N. romieuxii* forms, in late winter or earliest spring. Alpine-house in UK.) . . . (10+) **C**
- 698.251 : NARCISSUS BULBOCODIUM var. TENUIFOLIUS** * Portugal, Oliveira do Hospital. Ex M. Salmon & J.W. Blanchard 185. (Floriferous, very deep yellow, dwarf hoop-petticoat with dark, thready leaves. Excellent alpine-house plant.) . . (15+) **B**
- 699.806 : NARCISSUS CANTABRICUS (subsp. cantabricus)** * Spain, Malaga, near Estepona. Ex a B. Corneille coll. (A reliable & free-flowering form with profuse, pure-white hoop-petticoat flowers in early winter to brighten the alpine-house.) . (10+) **C**
- 699.807 : NARCISSUS CANTABRICUS (subsp. cantabricus)** * Morocco, Djebel Zerhoun. Ex a T. Norman coll. (10+) **C**
- 699.830 : NARCISSUS CANTABRICUS var. FOLIOSUS** * No data. Seed from Ivor Barton's stock, long-cultivated under this name. A fine plant for the alpine-house : profuse white hoop petticoats in late winter. Dry these off in summer.) (15+) **C**
- 700.000 : NARCISSUS CORDUBENSIS** Spain, Malaga, Serrania de Ronda, SW of Ronda. J.W. Blanchard 99-15. (Wild seed of this fine, scented, deep yellow jonquil, near *N. fernandesii*. Up to 3 flowers on 20-30cm. stems. Pots or the bulb-frame.) . (10+) **C**
- 700.002 : NARCISSUS CORDUBENSIS** * Spain, Cadiz, Grazalema to Ubrique. Ex a J.W. Blanchard coll. (15+) **B**
- 700.200 : NARCISSUS CUPULARIS** * Italy, Sardinia. 800m. Ex a T. Norman coll. (Dwarf, pale yellow to cream tazetta, 15-20cm. high. Listed in the past as *N. tazetta* subsp. *aureus* (it would be this in 'Flora Europaea') & *N. bertolonii primulinus*.) . . (10) **B**
- 700.310 : NARCISSUS CYCLAMINEUS** * No data. Little-known in the wild & thought to be all but extinct but well established in UK gardens, where it can sow itself when suited in rather heavy, acid loam. Grown before 1608 but 'lost' for 300 years until rediscovered in Portugal in 1885. Parent of a multitude of larger hybrids, the wild plant is still unrivalled - an irresistible, little, brilliant yellow daffodil, like no other in its extraordinarily long, narrow trumpet and fully reflexed perianth segments. (20+) **B**
- 700.980 : NARCISSUS EUGENIAE** * Spain, Teruel, Montes de Tarascon above Valdolinales. 1500m. In turf. Ex JWB 87-14 (From a type-locality coll. of this dwarf, snow-melt trumpet daffodil, opening its yellow flowers on very short stems. Currently included as a subsp. of *N. pseudonarcissus* & beautifully illustrated on p. 73 of John's monograph.) (8) **E**
- 701.020 : NARCISSUS FERNANDESII** * No data. From several J.W. Blanchard colls. of this yellow jonquil, distributed locally along the drainage of the Tagus. A poorly defined species in a confusing group but all variations are worthwhile.) (20+) **B**
- 701.850 : NARCISSUS JACQUEMONDII** (see also 696.600 : *Narcissus bulbocodium* (subsp. *vulgaris*) var. *pallidus*) Morocco, High Atlas Mts., between Asni & Amizmiz. Ex J.W. Blanchard 96-08. (From a type-locality coll. by John of this recently named little hoop-petticoat, which appears to be the same taxon we have listed under Maire's name. Suit yourselves. A good alpine-house plant with pale to deeper primrose flowers in early spring (much later than *N.b.* subsp. *praecox*). About 10cm. high.) . (15+) **D**
- 701.870 : NARCISSUS JEANMONODII** (*N. bulbocodium* subsp. *nivalis* as applied by Maire in 'Flore de l'Afrique du Nord') * Morocco, High Atlas Mts., above Tizi-n-Tichka. 2000m. In turf. (Previously listed under 696.200 as *N. b.* subsp. *nivalis* of Maire, this is a dwarf, snow-melt plant of the High Atlas, quite different to the Spanish ones, which have also been called '*nivalis*'. We have long said 'this needs a new name' but we did not anticipate anyone describing it at specific level. We fear that we are all now stuck with this legitimately published epithet from the Spanish 'splitter' Fernandez Casas, even if the taxon is eventually placed at a sensible subspecific level as "*N.b.* subsp. *jeanmonodii*". Anyway, this is an excellent & distinct race with broad, prostrate, glossy foliage & brilliant yellow, upward-facing flowers with much exserted anthers. An easy grower & possible outside in the UK.) . . (15+) **B**
- 701.910 : NARCISSUS JONQUILLA** * Spain, Cordoba, Sierra de Cabra. Ex JWB 87-12. (An excellent yellow jonquil, which grows well outside in the open garden with Dinah Batterham (Dorset, UK). Rewarding under glass as well, of course.) (10) **C**
- 701.980 : NARCISSUS JONQUILLA var. MINOR** * Spain, Ciudad Real, SE of Almaden. Ex J.W. Blanchard 86-03 (Previously listed by us under 701.050 as *N. aff. fernandesii*, this is a splendid plant, which both John & Mike Salmon are agreed should be placed under *N. jonquilla* var. *minor*, previously considered a rather obscure entity. This was originally from an isolated colony mentioned on p.83 of John's monograph. Mike Tucker (Somerset, UK) writes "stunning" - up to seven large flowers.) (10+) **D**
- 701.981 : NARCISSUS JONQUILLA var. MINOR** * Spain, Cordoba, N of Andujar. Ex a T. Norman coll. (10+) **D**
- 702.100 : NARCISSUS LONGISPATUS** * Spain, Albacete, Sierra de Alcaraz. Ex JWB 86-17 (This & *N. nevadensis* differ from all other trumpet daffodils in having 2-4 flowers per stem. In a wet, rich site in nature, this has been recorded approaching 2m. in height but expect much less in cultivation. It will possible be happiest outside in the UK. Ascending yellow trumpets.) (10) **D**

Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 702.450 : NARCISSUS NEVADENSIS** * Spain, Granada, Sierra Nevada, upper Rio Monachil valley. 2200m. Wet-flush on W-facing slope. (Isolated, very local Sierra Nevada endemic, much easier to grow than *N. longispathus* & generally best outside in the UK. Differs from *N. longispathus* mainly in its white & pale yellow, bicoloured flowers. Usually about 30cm. high.) (15+) C
- 702.472 : NARCISSUS NOBILIS** * Spain, Leon, Puerto de San Glorio. Ex an A. Edwards coll. (A splendid, bicoloured trumpet-daffodil from N Portugal & N Spain, where it can occur in extensive colonies. Ascending flowers with white segments surrounding deep-yellow coronas on 50cm. stems. Differs in several characteristics from *N. bicolor* and is seldom seen in cultivation.) (8) B
- 702.500 : NARCISSUS OBVALLARIS** UK, Wales, below Ffostrasol. 150m. Open grassland & deciduous woodland. (Our lovely, local Welsh trumpet daffodil. Really an imaginary taxon but generally, if not consistently, different to more eastern British colonies of *N. pseudonarcissus* in its horizontal to upward-facing flowers which tend to be concolourous rather than bicoloured.) (20+) B
- 702.702 : NARCISUS POPYRACEUS** * Cyprus. Ex a C.C. Mountfort coll. (A fine, vigorous tazetta, long grown by John Blanchard as *N. pachybolbus*. Possibly most safely labelled *N. papyraceus* Cyprus form. Clusters of small, scented, white flowers.) (8) B
- 702.703 : NARCISSUS POPYRACEUS** (subsp. *papyraceus*) Morocco, SE of Marrakech. M. Jacobi coll. (A coll. made in December, 1998 from a colony not seen in flower. This seed may just be from the autumn-flowering *N. broussonetii* but the locality seems a long way inland for this species and is more likely to be from the white tazetta, *N. papyraceus*.) (10) C
- 702.720 : NARCISSUS POPYRACEUS** (subsp. *papyraceus*) * From several colls. made in Morocco by John Blanchard. (10) B
- 703.750 : NARCISSUS PSEUDONARCISSUS 'THE O'MAHONY'S VARIETY'** * No data. An early-flowering (sometimes opening in January in the UK), uniformly bright yellow trumpet daffodil, originating in Ireland but without a precise wild counterpart. Though seldom seen now in cultivation, it is fertile and seems to come quite evenly from seed. (10) C
- 705.100 : NARCISSUS ROMIEUXII** (subsp. *romieuxii* var. *romieuxii*) * Morocco, Middle Atlas Mts., above Ifrane. 1700m. Leafsoil over clay in mixed woodland. (From a splendid colony, as numerous as bluebells in a British wood, from which we first collected in 1962, best-known under the field-number 805. Extremely variable in form & colour from cream to deeper yellows.) (20+) B
- 705.120 : NARCISSUS ROMIEUXII** * From 'Julia Jane' selfed. Data as above. From an outstanding clone, selected in flower from among thousands. The parent is virtually a pale yellow version of *N. cantabricus* var. *petunioides* with large flowers, whose coronas open flat or even slightly reflex. The clonal name, of course, should not be applied to seedlings, which will vary, producing an exceptional range of colour forms from almost white through to yellows. If these are hybrids, they are natural ones.) . . (15+) C
- 705.200 : NARCISSUS ROMIEUXII** var. **RIFANUS** * Morocco, Rif Mts., Iguermalet. Ex J.W. Blanchard 89-28 (From authentic material of this delightful, pale-yellow hoop-petticoat, proving to be a good grower under glass in the UK.) (15+) C
- 705.405 : NARCISSUS ROMIEUXII** subsp. **ALBIDUS** var. **ZAIANICUS** * Morocco, Zaian Mts., near Oulmes. Ex JWB 89-23. (Wild collected seed from this moist, lower altitude locality has produced an amazing range of forms, including some really splendid clones - possibly a group of hybrids or intergrades, like the Ifrane *N. romieuxii* population. The name is probably not worth much botanically - pick out a pale yellow one to call *N.r.a.* var. *zaianicus*! A diversity of creams & soft citron yellows.) . . . (15+) B
- 705.500 : NARCISSUS RUPICOLA** (subsp. *rupicola*) * Spain, Avila, Sierra de Gredos, NE of Pico Almanzor. 1800m. In turf on open slopes. (A very neat member of Sect. *Apodanthae* with flat, clear-yellow flowers & glaucous leaves. A plant of acid soils in nature, this is a rather choice, small, high altitude race and one of the last *Narcissus* to flower with us.) (10+) C
- 705.520 : NARCISSUS RUPICOLA** (subsp. *rupicola*) * No data. Derived from stock grown by John Blanchard's father. Its origins are unknown but it has always been designated as 'Early Form'. Flowering at least a month before the preceding, this is a slightly larger plant and increases vegetatively more enthusiastically. It may have a more southern or lower elevation origin. . (10+) C
- 705.600 : NARCISSUS RUPICOLA** subsp. **MARVIERI** * Morocco, Middle Atlas, S of Ksar-el-Ksiba. 1700m. N-facing, limestone slope with *Quercus* & *Cedrus*. (The yellow race endemic to Morocco. Larger & flowers earlier here than the preceding but not quantifiably different. Not easy in our experience. Needs careful watering & appreciates a warmer, drier rest in summer.) (8) C
- 705.701 : NARCISSUS RUPICOLA** subsp. **WATIERI** * Morocco, High Atlas Mts., above Tizi-n-Tichka. 2300m. Moist, or shaded sites on rocky slopes. (One of the most beautiful of wild daffodils. The incomparable, crystalline-white race from the great massifs of the central High Atlas. We have only found it on acid soils. Grow it cool & never bake it when dormant.) (10+) C
- 707.320 : NARCISSUS TRIANDRUS** (var. *triandrus*) * No data. A delightful species with up to 6 elegant white flowers, their tepals reflexing back from the cup-shaped coronas, on 20-30cm. stems. The sole member of Section *Ganymedes* & not very satisfactorily divisible into subspecific taxa. The pure-white, broader leaved type-race seems confined to NW Spain & perhaps adjacent N Portugal. Not always the easiest to grow - a cool site outside in acid, sandy soil seems the ideal in the UK. (15+) B
- 738.100 : ORNITHOGALUM ARCUATUM** * Turkey, Van, W of Yukari Narlica. 2200m. Stony alluvium in dried river bed. (A tall, handsome species, in effect a giant version of *O. narbonense*, distributed from E Turkey into NW Iran & N Iraq. Cylindrical racemes of many white flowers, with green fascia outside, on 1.5m. stems. Restrained but quite easy outside in the UK.) (20+) B

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
B : \$3.00 ; £2.00 ; DM5,- ; FF18.- D : \$5.00 ; £3.50 ; DM9,- ; FF32.- F : \$9.00 ; £6.00 ; DM16,- ; FF55.-

Paeonia : you may gain a year by sowing promptly

We list fresh 1999 seed from cultivated plants & refrigerated 1998 seed from natural populations in the republics of the former USSR & elsewhere. We do not yet know what, if any, further wild collections will materialise in 1999. Even if sown promptly, this may not show leaf-growth until spring, 2001.

These are plants for the dedicated and patient grower. Always keep ungerminated seed : it is large enough to check that it is sound. Like some lilies, many peonies will germinate hypogeally, forming a root-system underground during the first cool period before sending up true leaves the following season.

- 745.802 : PAEONIA ANOMALA** Russia, Khakassia, Shirinsky district. (A central Siberian coll. of this fine species, widespread in the colder areas of N Asia. Foliage cut into narrow segments, beautiful even without the flat flowers in deepest rose-pink. . . . (6) C
- 745.850 : PAEONIA ANOMALA *** Russia, Siberia. (From a tall, 1m. high form, originally from a wild Siberian coll. of this fine species, widespread in the colder areas of N Asia. The species is well depicted in the wild in Rix & Phillips, Vol. 1.) (6) C
- 745.950 : PAEONIA BIEBERSTEINIANA** (*P. tenuifolia* complex) Russia, Stavropol district. (6) F
- 746.100 : PAEONIA CAMBESSEDESII *** The dwarfiest species, endemic to the limestones of the Balearic Islands and best with some protection, in cyclamen-conditions, in the UK, though most of this seed is from a plant grown outside in Hampshire. About 30cm. high with beautiful, smooth, grey-green foliage, crimson beneath, & big, rosy flowers, up to 10cm. across in spring. . . . (6) C
- 746.150 : PAEONIA CAUCASICA** (*P. mascula* complex) SE Georgia, Daba area. (The fine Caucasian representative of the variable *P. mascula* complex. About 50cm. high with dissected, flat, smooth foliage, glaucous beneath, & big rosy-red flowers.) . . . (6) C
- 746.305 : PAEONIA CORIACEA** (*P. mascula* complex) Spain, Granada, near Alhama de Granada. (Only known in Europe from S Spain, though it extends into Morocco & Algeria. Beautiful, rose-pink flowers set against distinct, lead-green foliage.) . . . (6) E
- 746.500 : PAEONIA DAURICA** (*P. triternata*) (*P. mascula* complex) Ukraine, Krim (Crimea). (Close to *P. mascula* but distinct in its few, rounded leaflets with undulate margins. The valid name is an unfortunate misspelling of "*P. taurica*".) (6) D
- 746.640 : PAEONIA LITHOPHILA** (*P. tenuifolia* complex) Ukraine, Krim (Crimea). (The Crimean race, distinct in its light-green, much dissected leaves finely cut into a mass of filiform segments. Glossy, brilliant red bowls on stems about 50cm. high.) (6) D
- 747.110 : PAEONIA MLOKOSSEWITSCHII** (*P. wittmanniana* complex)* No data. "A sovereign among Paeonies" according to Farrer. Pale lemon-yellow flowers with deep yellow stamens above 60cm. clumps of rounded, greyish-green leaves. . . . (6) C
- 747.160 : PAEONIA OFFICINALIS** (subsp. *officinalis*) * Italy, Trentino-Alto Adige, Monte Baldo. From a fine pink selection of this variable S European species, originally made in the wild. Seedlings will vary but should all be worthwhile. (6) E
- 747.720 : PAEONIA PEREGRINA from ROMANIAN FORM** (*P. romanica*) * No data. Unlikely to differ much from other races as it does not vary greatly over its range from Italy through the Balkans. Distinct & spectacular with large, glossy flowers in eye-burning scarlet over deeply cut, shiny, bright-green foliage. Usually trouble-free in UK gardens. (6) E
- 747.850 : PAEONIA STEVENIANA** (*P. wittmanniana* complex) (possibly the same as *P. w.* var. *nudicarpa*) Georgia, Bakuriani area. (Likely to be wholly different to *P. mlokosewitschii*. We still know little of the variation of these Caucasian populations.) (6) E
- 747.900 : PAEONIA TENUIFOLIA** Georgia, Igoeti area. Steppe. (This type-race should have rich-green, glabrous foliage, less finely cut than *P. lithophila*, & crimson flowers. This collection is from a very small isolated colony of only a handful of plants.) (6) F
- 747.960 : PAEONIA TOMENTOSA** (*P. wittmanniana* complex) Azerbaijan, Lerik, Sinabad, Talysh. (Very little-known. Plants from seed collected in the Iranian Talysh in the 1960's (as *P. wittmanniana*) were compact with white flowers & most distinct.) (6) F
- 747.961 : PAEONIA TOMENTOSA** (*P. wittmanniana* complex) The preceding is seed collected in the Talysh range, which runs into Iran. This is from a locality up towards Armenia, in the the main body of the Caucasus, in NE Azerbaijan. (6) F
- 748.110 : PAEONIA WITTMANNIANA from PINKISH WHITE FORM *** Seed from plants grown in Bakuriani Botanic Garden. This sounds like a natural hybrid, most likely to be with *P. caucasica*. (6) E
- 709.502 : PANCRATIUM ILLYRICUM *** France, Corsica, Venaco SSE of Corte. c.500m. Ex an A. Edwards coll. (A few seeds of this spectacular bulb in *Amaryllidaceae*, endemic to the W Mediterranean islands of Corsica & Sardinia. Very slow from seed but hardy in the UK - we grew it for many years outside in Dorset. Umbels of sweet-scented, white 'lilies' on 30cm. stems.) . . . (5) D
- 809.500 : RANUNCULUS ABNORMIS *** Spain, Avila, Sierra de Gredos, NE of PicoAlmanzor. 1800m. Among rocks in melt-water gulleys. (A beautiful, tuberous-rooted species, which goes dormant as the ground dries in summer. Branching, 10cm. stems with many varnished, lemon-gold buttercups, each with up to 10 'petals', from tufts of grassy foliage. Choice & delicate but not difficult with some care - it fits in well with alpine-house 'bulbs', though it will resent complete dehydration in summer.) (20+) E
- 827.150 : ROMULEA BULBOCODIUM *** No data. The fine, vigorous, comparatively hardy form grown in the garden at Knightshayes in Devon. Grassy leaves & big rich-violet crocus-like flowers with yellow throats in spring. (20+) B
- 827.151 : ROMULEA BULBOCODIUM *** No data. An excellent, late-flowering form, which, as far as we can ascertain, was originally passed round by that excellent plantsman Cedric Morris and continues to circulate among a few enthusiasts. (15+) B

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Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 827.310 : ROMULEA CLUSIANA** (*R. bulbocodium* complex) * Gibraltar. Ex a J. Hulme coll. (While the current botanical fashion is to lump all the taxa with a yellow throat under *R. bulbocodium*, some plants from SE Spain, which can be called *R. clusiana*, are particularly splendid & desirable with large flowers in rich violet with extensive yellow-orange centres. Alpine-house.) (15+) C
- 827.410 : ROMULEA CROCEA** (*R. bulbocodium* var. *crocea*) * Turkey, Antalya. 1100m. Among scrub in damp meadow. Ex a R. & R. Wallis coll. (From Bob & Rannveig's award winning form of this spectacular race, which usually grows below 900m. on sandy soils in small areas of SW Turkey & W Syria. Exceptional among the northern hemisphere representatives of this genus in its wholly yellow flowers and in this respect more like some from S African, the centre of diversity for this genus.) (15+) C
- 827.610 : ROMULEA LEICHTLINIANA** (*R. bulbocodium* var. *leichtliniana*) * No data. A race of sporadic distribution in the E Mediterranean region, usually below 600m. in oak scrub. Most frequent in Greece and the Aegean islands but extending E to Hatay in Turkey. White flowers, usually marked externally with purplish shading and with yellow throats, over a long period. (15+) C
- 829.505 : ROMULEA LINARESII** subsp. **GRAECA** * Greece, Evia. Ex Christian, Elliott & Hoog 620. (The Aegean race with pointed segments to the concolourous, violet, crocus-like flowers. The type-race is a Sicilian endemic.) (20+) B

Scilla : the best of the blues

- 872.305 : SCILLA ARMENA** Turkey, Erzurum, S of Ispir, Golyurt Gecidi. 2360m. Sandy clay slopes. N. Stephens coll. (Not seen in flower but possibly more likely to be this than *S. monanthos*, which has similar seeds. Very much smaller & more delicate than *S. siberica*. Pale, penetrating, electric blue more intense on the dark blue midribs. Cool summer conditions.) (15+) C
- 872.602 : SCILLA AUTUMNALIS** * Turkey, Balikesir, NE of Ayvalik. 100m. Among *Cistus* on igneous rock. (Conical racemes of bluish lilac flowers on 15cm. stems appear before the leaves in early autumn & continue over a long period.) (20+) A
- 873.005 : SCILLA BIFOLIA** Bosnia & Hercegovina, S of Bosanski Brod, Dugo Polje. W. McLewin 98-13 (20+) B
- 873.020 : SCILLA BIFOLIA** Greece, Fokida, Oros Parnassos. 2100m. Open. stony, limestone slopes. (The high altitude, Greek, race of this widespread, variable 'species-group'. It follows the melting snows with a wash of ultramarine-blue flowers.) . . (20+) B
- 873.210 : SCILLA BITHYNICA** * No data. An attractive plant for the open garden, which sows itself here in our heavy, acid clay. Native to low altitudes along the wet, Black Sea coasts of Bulgaria & NW Turkey, with 20cm. racemes of starry, blue flowers in spring. Seed from both pale-blues & whites with navy-blue anthers. They look well intermingled.) (20+) A
- 873.510 : SCILLA CILICICA** * No data. The *Scilla* species at the eastern end of the Cilician Taurus range in southern Turkey are confusing in the wild, sometimes growing in apparently mixed colonies. They can be sorted out in seed but this also tends to differ from *S. melaina* in having about twice as many paler, lavender-blue flowers in the 20cm. high racemes. (15+) C
- 873.650 : SCILLA GREILHEUBERI** * Iran, Mazendaran, S of Chalus. (Previously listed as the allied *S. hohenackeri*, research by Brian Mathew indicates that the name was misapplied to these 1960's collections. This is Paul Furse's 'Caspian Bluebell'. Early-flowering with delightful, soft violet-blue flowers with reflexed segments. Often grows in quantity in the crevices of large, limestone boulders in the Caspian woodlands. Hardy in the UK but the flowers are better protected from the winter-weather.) . . (15+) B
- 873.800 : SCILLA HYACINTHOIDES** * Turkey, Siirt, between Kurtalan & Besiri. 500m. Wet meadows & streamsides. Ex a N. Stevens coll. (Seldom seen in gardens but a tall handsome species, occurring locally & sporadically through southern Europe to N Iraq. Stout stems up to 1m. high carry cylindrical racemes of about 100, starry, pale-margined, violet-blue flowers.) . . (15+) B
- 874.400 : SCILLA LILIO-HYACINTHUS** * France, Hautes-Pyrenees, N of Col du Pourtalet. 1500m. Deciduous woodland. (A distinct plant, especially in its loosely scaled bulbs, distributed from SE France into N Spain. An easy garden-plant in the cool climate of the UK. Its lush, glossy leaves always attract attention, even without the 30cm. racemes of soft-blue stars.) (15+) A
- 874.800 : SCILLA LITARDIERI** * Bosnia & Hercegovina, above Dubrovnik to Trebinje. 500m. Fragmented limestone. (Heads of starry, pale-blue flowers on 20cm. stems. A lovely plant, local in nature but hardy in a sunny site in the UK.) (15+) A
- 875.000 : SCILLA MELAINA** * Turkey, Hatay, E of Belen. 1300m. Fissures on & at base of limestone cliffs. (More or less endemic to the Amanus Mts. Little known but excellent & trouble-free under glass here. Seems quite hardy in the UK & may even prove a fine garden-plant. Possibly closest to *S. mischtschenkoana* (*S. tubergeniana*) but with prussian-blue flowers.) (15+) C
- 875.200 : SCILLA MESSENIACA** * Greece, Messinia, S of Kardamili. 30m. In shade, among limestone rocks. (Very local & confined to the tail-end of the Taigetos but seems totally temperature-hardy here. Racemes of pale-blue, starry flowers. 20cm.) (15+) B
- 875.605 : SCILLA MORRISH** * Cyprus, Paphos district. 700m. Moist, shaded crevices & banks, under *Quercus*. Ex D. Meikle 4015. (A very local Cyprus endemic, about 10 cm. high with erect racemes of 3-5, campanulate flowers in milky-white tinged with lilac & with pale-blue anthers. We hope to see this very attractive & genuinely rare species well-established in gardens.) . . (10+) D

- 876.501 : SCILLA PERSICA** * Turkey, Batman, between Catakopru & Sason. Sandy clay. Ex a N. Stevens coll. (A fine plant, little known but which should be growable outside in the UK. It usually inhabits subalpine meadows which are very wet in spring &, in Turkey, only occurs around here into Siirt. In NW Iran, it can contribute to a magnificent spectacle, growing in huge numbers in marshy meadows with the purple-red *Gladiolus persicus*. Up to 50cm. high with racemes of up to 50 blue flowers.) . . (15+) C
- 876.810 : SCILLA PERUVIANA** * No data. A very handsome, variable, low-altitude W Mediterranean species, usually quite hardy & easily grown in any good soil in a warm, sunny border in the UK. Big, wide racemes of rich violet-blue flowers carried on stout, 50cm. stems in late spring from basal rosettes of broadly lanceolate leaves. Slow from seed but worth the wait. (15+) A
- 878.000 : SCILLA VERNA** * Spain, Avila, Sierra de Gredos, SW of Hoyos de Espino. 1700m. Moist turf on open slopes. (Racemes of starry, lilac-blue flowers with blue-purple anthers. A montane, snow-melt form of this W European species.) (15+) A
- 933.000 : STERNBERGIA CANDIDA** * Turkey, Mugla, SE of Fethiye. 1100m. Limestone crevices, ledges & talus on steep slopes with sparse *Cedrus*. (A unique plant in this otherwise yellow-flowered genus, discovered by Oleg Polunin in 1976 & described in 1979. Robust with narrowly, strap-shaped, grey-green leaves & large, scented, pure-white flowers on 10cm. stems in winter to early spring. Not difficult if protected by a bulb-frame or alpine-house in the UK, though fully temperature-hardy.) (8) D
- 950.603 : THALICTRUM ORIENTALE** Greece, Messinia, near Kardamili. 20-50m. Dense shade in leaf soil. D. Hoskins 98-1 & 98-11 ; M. Jope 98-02 (From three of the limited sites in the Kardamili area, The small, very restricted population in the S Peloponnese is far removed from the better-known S Turkish plants & is always white-flowered. This & the next are the only two species in Europe with showy, petaloid perianth-segments, like some of the SE Asian ones. Both are summer-dormant & fit in with more conventional 'bulbs'. Grow this dainty, 20cm. high shade-lover with delicately cut foliage in *Cyclamen*-conditions.) . . (10+) D
- 950.700 : THALICTRUM TUBEROSUM** * Spain, Huesca, W of Anzanigo. 600m. Steep, stony, limestone banks (This coll. has proved to be taller & more spectacular than other examples of this Pyrenean endemic we have seen. Planted out under glass here, it is about 40cm. high with airy panicles of big, ivory flowers over a very long period. Ideal for the bulb-frame.) (10+) D
- 969.252 : TULIPA ARMENA var. LYCICA** * Turkey, Antalya, N of Akseki. 1400m. Steep, limestone slopes with *Quercus* & *Pinus*. (The western race, separated from the the eastern type-race & *T. julia* mainly on the characters of the hairs of the bulb-tunics These three are all highly variable in the external colours of their flowers & the internal markings. Expect this to have absolutely stunning red flowers with central black blotches & glaucous, undulate leaves. 15cm. Quite reliable with us under glass.) (15+) B
- 969.460 : TULIPA BIFLORIFORMIS** * No data. Originally from the Gothenburg Botanic Garden stock of this Central Asian species. Distinct, dwarf, dainty & attractive with multi-flowered stems carrying many, starry, white, yellow-centred flowers. . . (15+) C
- 969.600 : TULIPA CRETICA** * Greece, Crete, Hania, Akrotiri NE of Hania. 100m. Terra rossa. Ex a P. & P. Watt coll. (A tiny tulip, endemic to Crete, best appreciated in an alpine-house pot. Its diminutive stature easily separates it from other Cretan tulips. Starry white flowers, tinged with pink & grey-green outside & with yellow bases, on stems less than 10cm. high.) (15+) C
- 969.601 : TULIPA CRETICA** * Greece, Crete, Mt. Dikti, E face. (Norman Stevens' pale-pink, non-stoloniferous form of this dainty Cretan endemic, much coveted by those who have seen it. You have to grow this one from seed for a good increase.) (15+) E
- 969.901 : TULIPA HETEROPHYLLA** Kazakhstan, Tien Shan. 2900m. H. Fuchs coll. (A 1999 coll. of this member of a group of Central Asian tulips with long, beaked capsules & untuliplike seeds, which have been separated into both *Orythia* & *Eduardogelia*. Very dwarf with yellow flowers with dark exteriors. Illustrated in this locality in Rix & Phillips p. 117.) (10+) E
- 970.220 : TULIPA HUNGARICA** * No data. Seed from a plant grown as the S Bulgarian *T. urumoffii* (which is probably the same as *T. rhodopea*) but which seems a little robust for this and may come nearer to *T. hungarica* (a name which some botanists consider should cover all these Balkan taxa anyway), so its seems best to include it here. These SE European tulips, like others in the *T. gesnerana* group, are a confusing lot. This is about 25cm high with fine yellow flowers, sometimes with a red fleck. . (10+) D
- 970.400 : TULIPA JULIA** * Turkey, Hakkari, Zab gorge at Bagisli. 1500m. Loose, igneous scree. (Differs technically from *T. armena*, the other truly wild, E Anatolian red tulip, in the matted, woolly hairs inside the bulb-tunics but it usually also has more pointed outer segments. May or may not have the central, black blotch rimmed with yellow. Always eye-burning scarlet or orange.) (10+) C
- 970.401 : TULIPA aff. JULIA** * Turkey, Hakkari, Zab gorge S of Hakkari. 1300m. Steep stony slope below NE-facing cliffs. (Raised from seed collected in 1986 under our field number 7673, this does not match the *T. julia* populations higher up the Zab at Bagisli. The scarlet tulips are such a taxonomic nightmare that it seems most appropriate to place it under this species.) (10+) C
- 970.710 : TULIPA POLYCHROMA** * No data. From several forms of this dwarf species, 'lumped' under *T. biflora* by some. A finer plant than commercial *T. biflora* with big yellow-centred white flowers, usually pink-backed, on short stems. (10+) B
- 971.410 : TULIPA SPRENGERI** * No data. Found last century near Amasya in N Turkey & now thought to be extinct in the wild. Very much alive in cultivation. The best garden-plant in the genus for the UK, often sowing itself freely, yet surprisingly seldom seen. It remains expensive to buy as a bulb & no attempt seems to be made to mass-produce it. It likes a good, heavy, slightly alkaline soil but is accommodating. Elegant, scarlet-orange, olive-green-backed flowers in June, later than any other. (20+) A
- 971.950 : TULIPA SYLVESTRIS** * No data. From the stock growing splendidly in Peter Chappell's Hampshire garden. Apparently naturalised from Britain to NW Iran, this is usually shy-flowering & of limited fertility. This form flowers profusely & sets seed well. About 30 cm. with large, scented, clear yellow flowers, greenish outside. Good soil in a very sunny site. (15+) B

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Allium, Brodiaea, Calochortus, Dichelostemma, Triteleia, etc. will be in our next list

Erythronium : an unrivalled range of the westerners

We list here an unprecedented range of seed from the western members of this fashionable genus. Most grow in well-drained habitats usually in light shade. When areas are hot & dry in summer, the corms are likely to be growing deeply among stones, where soil-temperature & moisture remain constant. Their preference for serpentine areas is marked : singularly inhospitable, infertile soils, deficient in nitrogen, phosphorous & calcium, with high concentrations of magnesium. We suggest caution in attempting these in pure peat : a mix of half granite chippings and half sphagnum peat or leafsoil might be more appropriate. Species from warmer, drier summer habitats might be best in well-drained sites in full sun in cool, wet climates. These may need a summer-rest. All seem remarkably temperature-hardy and many grow surprisingly well in the open garden in wetter climates. Seed of most of the species from

California & Oregon will come up easily after a sufficient cool period. Early experience with *E. klamathense*, *E. pusaterii*, *E. pluriflorum* & *E. purpurascens* showed them to be difficult to germinate. (The following comments may also apply to various races of *E. grandiflorum*, *E. idahoense*, *E. nudopetalum* & other cold-climate taxa.) They appeared to require a very long cold period or repeated freezing. This was verified, wholly independently, in 1996 by John Andrews in California, Art Guppy in British Columbia & Norman Stevens in the UK. They all germinated *E. pluriflorum* & *E. pusaterii* after subjecting imbibed seed to long spells in the refrigerator. What appeared to be required was a period of about 6 months at a temperature around 0 C or 32 F. We have since, however, received several reports from growers who have germinated such species successfully by conventional treatment outdoors in the UK.

- 1.350.200 : ERYTHRONIUM CALIFORNICUM** Cal., Humboldt Co., SSW of Willow Creek. 1580m. Stony serpentine areas in openings among conifers. (The lovely species of the N Californian Coast Ranges distributed S from here almost to the Bay area. A plant of foothill woodland & pine forest. Beautifully mottled leaves. Creamy white flowers with yellow throats.) . . (15+) C
- 1.350.400 : ERYTHRONIUM CITRINUM** Oregon, Josephine Co., SW of Selma. 550m. Steep slopes with sparse conifers. (Mottled leaves & white to cream flowers with lemon bases. Restricted to the Coast Ranges on the California-Oregon line.) . . . (15+) C
- 1.350.401 : ERYTHRONIUM CITRINUM *** Cal., Del Norte Co., ENE of Gasquet. 450m. In coniferous woodland. . . (15+) C
- 1.350.500 : ERYTHRONIUM CITRINUM var. RODERICKII** Cal., Trinity Co., Scott Mts., between Tangle Blue Creek & Bear Creek. 1250m. Openings in coniferous forest. (Round the mountain from the type locality, where it is shy-flowering. Listed in 1989 as a form of *E. californicum* with purple filaments (11018). Nearest recorded populations of *E. citrinum*, *E. hendersonii* & *E. californicum* are all about 35km. distant. This may have something to do with all or any of them. It is not recognized as a valid taxon in "Jepson" but the name covers quite a large population and is definitely worth retaining by gardeners.) (20+) D
- 1.351.000 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Utah, Cache Co., above Tony Grove Lake. 2400m. Open slopes with *Artemisia*. (Montane, snow-melt plant with a northern & eastern distribution. Outstanding bright yellow flowers and plain green leaves. Here with red-brown anthers : so far S, it usually has yellow-anthers (subsp. *chrysandrum*)). . . . (15+) C
- 1.351.002 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Idaho, Nez Perce Co., N of Lake Waha. 300m. Steep slopes, among conifers. (Applegate assigns an 1892 coll. here to this type-race. Red, white & yellow anthers occur in N Idaho.) (15+) C
- 1.351.047 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Wyoming, Albany Co., Medicine Bow Mts. 3500m. Stony alpine turf. M. & P. Stone 98-051. (A spectacle in the Snowy Range here, pushing up beside the melting snow-patches.) (20+) C
- 1.351.048 : ERYTHRONIUM GRANDIFLORUM** Montana, Madison Co., Tobacco Root Mts. M. & P. Stone 98-023. (20+) C
- 1.351.049 : ERYTHRONIUM GRANDIFLORUM** Montana, Madison Co., Gravelly Ra. 2860m. M. & P. Stone 98-034 (20+) C
- 1.351.100 : ERYTHRONIUM GRANDIFLORUM var. CANDIDUM** Washington, Whitman Co., Steptoe Butte. 1020m. N-facing slope with sparse *Pinus*. (From the 1906 type-locality of this white-flowered plant. May or may not be the same as *E. idahoense* (q.v.). Isolated here on top of a quartzite butte rising above intensively cultivated palouse country on the Idaho line.) . (15+) E
- 1.351.101 : ERYTHRONIUM GRANDIFLORUM var. CANDIDUM** Washington, Whitman Co., Kamiak Butte. 1020m. In mixed coniferous woodland on N-facing slope. (No early records from here but a twin, quartzite butte habitat.) (15+) E
- 1.351.201 : ERYTHRONIUM HELENAE** Cal., Lake Co., SE of Middletown, Butt's Canyon. 450m. Among *Arctostaphylos* chapparal on serpentine slope. J. Andrews coll. (A beautiful, very local species only known from around Mt. St. Helena, in Napa, Lake & Sonoma Cos., quite a densely populated and cultivated area, where few colonies are accessible. With mottled leaves, it is quite near *E. californicum* but has yellow anthers and a definite capacity to increase vegetatively. This has settled down well from our 1989 coll. in this site with pot-cultivation under glass & seems to enjoy a drier summer rest than others.) (15+) D

- 1.351.300 : ERYTHRONIUM HENDERSONII** Oregon, Jackson Co., N of Medford. 400m. Openings among scrub in *Quercus* woodland. (Limited to the Oregon-California borders, a superlative, robust species with dark-mottled leaves. Lavender-pink flowers with dark anthers & a purple base, surrounded by a white or yellow zone. Quite easy in a well-drained site in the UK.) (15+) C
- 1.351.301 : ERYTHRONIUM HENDERSONII *** Oregon, Jackson Co., Siskiyou Mts., 1030m. Wooded slope. (15+) C
- 1.352.302 : ERYTHRONIUM HENDERSONII *** Oregon, Jackson Co., Jacksonville. 500m. Among *Quercus* scrub . . (15+) C
- 1.352.303 : ERYTHRONIUM HENDERSONII *** Oregon, Josephine Co., SE of Murphy. 350m. Beneath *Quercus*. . . (15+) C
- 1.351.500 : ERYTHRONIUM HOWELLII** Oregon, Josephine Co., E of Takilma. 670m. Among conifers. (15+) C
- 1.351.501 : ERYTHRONIUM HOWELLII** Oregon, Josephine Co., above Waldo. 650m Among *Arctostaphylos* scrub & in shade of deciduous *Quercus*. (A type locality of this local plant, only known where the Illinois valley meets the Klamath Ranges. Nearest to *E. citrinum* but with no basal appendages to the anthers. White flowers turning pink as they age. Mottled leaves.) . (15+) C
- 1.351.600 : ERYTHRONIUM IDAHOENSE *** Idaho, Kootenai Co., NW of Worley. 800m. *Pinus* woods on sandy clay. (Limited to a strip N & S of Coeur d'Alene. White flowers with greenish centres, white anthers and unmarked leaves. From Applegate's 1926 type-locality, a very different habitat to those listed under *E. grandiflorum* var. *candidum*, considered synonymous.) . (10) E
- 1.351.700 : ERYTHRONIUM KLAMATHENSE** Cal. Siskiyou Co., SW of Castle Lake. 1580m. Among scrub. (High altitude species, rarely below 1500m. Closest to *E. purpurascens*, whose relatives tend to be the more difficult ones. Yellow-centred, milk-white flowers with creamy anthers. Plain bright-green leaves. A local, mountain-plant, mainly of S central Oregon) . . (15+) D
- 1.352.000 : ERYTHRONIUM MULTISCAPOIDEUM *** Cal., Butte Co., N of Magalia. 600m. Under *Cupressus* on serpentine. G. Greger coll. (Mottled leaves. White flowers with greenish yellow centres & white anthers. No close affinities and the only species with stoloniferous corms. In nature, these are much dwarfer plants than the following. Maybe best dryish in summer.) (15+) C
- 1.352.100 : ERYTHRONIUM MULTISCAPOIDEUM (*E. "cliftonii"*) *** Cal., Butte Co., S of Pulga. 420m. Steep, open, serpentine scree. (More or less a giant form of the species only known from this one site. Never described botanically but grown in the UK as *E. "cliftonii"*. Proving a good grower. Adaptable and reputedly quite accommodating in the open garden.) (15+) D
- 1.352.100 : ERYTHRONIUM MULTISCAPOIDEUM (*E. "cliftonii"*)** Cal., Butte Co., S of Pulga. 420m. Steep, open, serpentine scree. G. Greger coll. (We have a little 1999 wild seed from this locality. If you prefer this, please state 'wild collected'.)(15+) E
- 1.352.200 : ERYTHRONIUM NUDOPETALUM** Idaho, Valley Co., NNE of Lowman, along Cache Creek. 2050m. Margin of coniferous woodland. ('One-off type-locality coll. of this obscure plant, collected here by Applegate in 1930 but later reduced to a var. of *E. grandiflorum* by Hitchcock. Golden-yellow flowers with dark-red or maroon anthers.) (10) E
- 1.352.400 : ERYTHRONIUM OREGONUM subsp. LEUCANDRUM** Oregon, Douglas Co., S of Tiller. 460m. Among *Pinus* on steep serpentine slopes. 14.6.95 (Race with white anthers, of more limited distribution towards the SE of the range. The white flowers, often maturing to pink, have markings in orange, dark-red or brown around the yellow bases. Superlative.) . . (20+) C
- 1.352.700 : ERYTHRONIUM PLURIFLORUM** Cal., Madera Co., Shuteye Peak (Sierra Nevada E of Merced). 2310m. NW-facing granite ledges. J. Andrews coll. (Described in 1990, though the first coll. was made in 1907 & misidentified by Applegate & others as *E. purpurascens*. It is allied to this with plain green leaves but the 30cm. stems carry up to 10 - exceptionally to 20 - nodding, bright yellow flowers, maturing to bronze or pinkish. Isolated high on Chiquito Ridge between Shuteye & Little Shuteye Peaks, it flowers as late as July. John has made a fresh, 1999 coll. - it *must* be grown & established in gardens. It seems to need prolonged cold to germinate but, since we mentioned the problems encountered with germination, many others have written telling us of their successes and it was listed in the trade as young plants raised from John's original coll. for the first time in 1999.) . . . (20+) E
- 1.352.802 : ERYTHRONIUM PURPURASCENS** Cal., Plumas Co., N of Greenville. 1100 m. G. Greger coll. (Plain green leaves & yellow-centred white flowers, purple-tinged with age. The most widespread of this trio, most numerous around the upper drainage of the Feather River, reaching to almost 2500m. A collection made more or less in the type-locality, at a comparatively low altitude for the species, where colonies are more sparse but may be more growable.) (15+) D
- 1.353.000 : ERYTHRONIUM PUSATERII** Cal., Tulare Co., Jordan Peak (Sierra Nevada ENE of Porterville). 2774m. Granite rock-falls. J. Andrews coll. (Again described in 1990 - the Purpus coll. of 1895 was placed under *E. purpurascens* & Pusateri's later colls. in *E. grandiflorum*. Like a large *E. purpurascens* with well developed appendages on the segments & a larger yellow centre. The most southern of the westerners, confined to a small area at the sources of the Tule & Kaweah Rivers.) (15+) E
- 1.353.105 : ERYTHRONIUM REVOLUTUM** Cal., Del Norte Co., near Gasquet. c.400m. P. Gustafson 98-06233 (An extremely interesting coll. from one of the few Californian colonies of this splendid species, growing here in the same area as *E. citrinum* with several other species not too far distant. The more southern, early flowering colonies near Ukiah appear to have been largely eliminated & we are told are less attractive forms. Mottled leaves and sumptuous rose-pink flowers.) (20+) C
- 1.353.120 : ERYTHRONIUM REVOLUTUM *** No data. Fresh 1999 seed from the vigorous stock in Peter Chappell's Hampshire garden at 'Spinners'. These will be in varying shades of pink & may show some hybrid influence. A species of the wet Pacific NW with beautiful, brown-marbled, lush, green foliage. If you just want some good, reliable garden-plants for the moist, mild climate of the UK, where this will usually sow itself in shady conditions, this is what you should have. (20+) B

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
 B : \$3.00 ; £2.00 ; DM5,- ; FF18.- D : \$5.00 ; £3.50 ; DM9,- ; FF32.- F : \$9.00 ; £6.00 ; DM16,- ; FF55.-

A new *Erythronium* from the high sierras

- 1.353.250 : ERYTHRONIUM TAYLORI** Cal., Tuolumne Co., Pilot Ridge (Sierra Nevada E of Oakdale). 1340m. Steep, NE-facing metamorphic rock outcrops in conifer-oak forest. (The most recently described (in 1997) among the new species from the Sierra Nevada. These are all allied to *E. purpurascens* and will need similar treatment in cultivation. Locally numerous but so far only known from the type-locality, this can have up to 8, nodding, fragrant, bicoloured flowers, white at the tips and yellow at the bases, on stems of about 30cm. It is distinguished from bicoloured *E. purpurascens* by its much larger flowers with appendages at the bases of the inner segments and from the closely related *E. pusaterii* by its white anthers. It is a lower altitude plant than the latter and apparently shares with the plain yellow *E. tuolumnense*, a capacity to increase vegetatively, forming clumps.) (10+) E
- 1.353.300 : ERYTHRONIUM TUOLUMNENSE** * Cal., Tuolumne Co., NE of Columbia. 750m. Steep slopes in deciduous woodland. (Plain green leaves & up to 5, bright-yellow flowers. A low altitude relic, amazingly hardy & easy in European gardens. It is also of limited distribution in the wild, though much more locally abundant than was once thought.) (15+) C

Fritillaria : specialists of serpentine, granite and adobe clay

Names here mostly follow the account in Jepson, which is itself derivative from work done by Roger MacFarlane, whose names are largely in use in the UK. Some of those who know the genus well in California are not impressed by the current treatment of some 'species'. Individual populations of species like *F. affinis* (*F. lanceolata*) and *F. biflora* can look more distinct than many Mediterranean populations given specific status. It is quantifying the differences and finding a degree of consistency in them that is the problem. For gardeners, the

articles written by Dr. Sylvia Martinelli in the March & June 1992 AGS Bulletins are the most useful references available. Some still pose problems but successful cultivation of these plants is much more widespread now than in the past. The basic criteria would appear to be well-drained, lime-free, low nutrient composts and, in the UK, giving them their first winter watering quite late. Excess nitrogen should be avoided, especially for serpentine species - please note our comments about the chemical characteristics of this under *Erythronium*.

- 1.370.000 : FRITILLARIA AFFINIS** (*F. lanceolata*) * Cal., Solano Co., NW of Vacaville. 550m. Steep scrub-covered slopes. (Coast Range form of this immensely variable group distributed in a great arc from around here N to Canada and E to Idaho. Nodding bells variously mottled in brown-purple & pale yellow. Up to 50cm. here. Usually one of the easier ones in cultivation.) . . . (20+) B
- 1.370.001 : FRITILLARIA AFFINIS** * Cal., Tuolumne Co., W of Chinese Camp. 360m. Chaparral. (Sierra foothill form)(15+) B
- 1.370.002 : FRITILLARIA AFFINIS** * Cal., Stanislaus Co., above Adobe Creek. 490m. Stony clay over serpentine. . . (15+) B
- 1.370.003 : FRITILLARIA AFFINIS** * Cal., Lake Co., Butts Canyon. 350m. Among *Arctostaphylos* on serpentine. . . (15+) B
- 1.370.050 : FRITILLARIA AFFINIS** * Oregon, Josephine Co., SW of Selma. 450m. Among volcanic debris on open, S-facing slopes. (Illinois Valley form, 15-20cm. high, often single-flowered & usually yellowish green with just a few brown lines.) . . (15+) C
- 1.370.120 : FRITILLARIA AFFINIS** Deep brown-purple, almost black, from the upper Okanagan valley, B.C., Canada. (15+) C
- 1.370.200 : FRITILLARIA AFFINIS** (*F. lanceolata*) Idaho, Kootenai Co., ESE of Worley. 750m. *Pinus* woodland on sandy clay. (A giant from the NE extremity of the group distribution. Not the sort of thing expected so far E and just S of the Canadian border. Stout stems, 60cm. or more high, whorled with broadly lanceolate leaves carry up to 8 flowers.) (20+) C
- 1.370.301 : FRITILLARIA AGRESTIS** Cal., Alameda Co., ESE of Livermore. 450m. Among grass on clay slopes. (An adobe-clay plant, the valley-grassland version of *F. biflora*. Once widespread in the Central Valley but now very localised as most of its habitat has been destroyed by agriculture & development. Green-cream bells, purple-brown inside. Up to 50 cm.) (20+) C
- 1.370.403 : FRITILLARIA ATROPURPUREA** Cal., Plumas Co., N of Greenville. 1100m. G. Greger coll. (Creamy bells mottled in purple-brown on stems of about 20cm. More or less an alpine or steppe version of *F. affinis*, distributed in an interior parallel arc E to S. Dakota : here temperatures can go down to -20 F. Narrower-leaved than *F. affinis* with more open bells.) . . . (20+) D
- 1.370.500 : FRITILLARIA BIFLORA** * Cal., San Luis Obispo Co., above San Simeon Bay. 10m. Coastal grassland in sandy clay. (In fine form here, 20-30cm. high with darkest, brown-purple, green-striped bells. Always a coastal plant extending S to around the Mexican border - maybe best grown frost-free but the coast is cool in summer so do not bake it when dormant.) . . (20+) B
- 1.370.650 : FRITILLARIA EASTWOODIAE** (*F. phaeantha*) * Cal., Shasta Co., S of Shingletown. 1000m. Openings in mixed woodland. (A dubious 'species', apparently a stable but fairly recent hybrid between *F. recurva* & *F. micrantha*. Dr. Martinelli describes the elegant bells here as from all red or all apricot to brown-orange edged with yellow and orange with yellow inside. About 50cm. high in the wild but less than 30cm. with us in cultivation, where it is proving quite easily grown) (20+) C

- 1.370.800 : FRITILLARIA GLAUCA** * Cal., Humboldt Co., SSW of Willow Creek. 1580m. Unstable, serpentine talus on steep, N-facing slope. (Very dwarf, serpentine-endemic of the NW Coast Ranges, not unlike the Turkish scree-forms of *F. crassifolia*. Thick, glaucous leaves & nodding bells in yellow through to red-browns in this site. Not difficult to grow with us.) . . . (10+) **D**
- The above is 1998 wild-collected seed. We can also offer cultivated, hand-pollinated 1999 seed from selected seedlings in either yellow or brown. The browns are rare in cultivation and the yellows are daintier plants than the Mendocino Pass yellow with heavier brown speckles. If you want these, please specify 1.370.800 BROWN or 1.370.800 YELLOW. Both at (10+) **E**
- 1.370.802 : FRITILLARIA GLAUCA** * Cal., Mendocino Co., Mendocino Pass. 1500m. Serpentine. (Selected yellows) (10+) **D**
- 1.371.100 : FRITILLARIA LILIACEA** Cal., Marin Co., NW of Nicasio. 15m. Among scrub on low, grassy, coastal hills. (A beautiful species, closest to *F. biflora* & *F. roderickii*, limited to the foggy Bay Area. Perhaps best kept frost-free in winter & cool in summer. Bright-green leaves, mostly clustered close to the ground, & up to 5, pendant, creamy white bells on 30cm. stems.) . . . (15+) **D**
- 1.371.201 : FRITILLARIA MICRANTHA** * Cal., Tuolumne Co., ESE of Groveland. 950m. Mixed woodland. (A robust species of the Sierra Nevada foothills. Up to 10 nodding bells, purplish to paler, greener tones & sometimes faintly mottled.) . . . (20+) **B**
- 1.371.500 : FRITILLARIA PINETORUM** * Cal., Kern Co., Mt. Pinos. 2650m. In granite grit at margin of *Pinus* woods. (Flat, upward-tilted flowers in lime-yellow thickly peppered with purple-brown dots & with brilliant orange anthers.) (10) **E**
- 1.371.520 : FRITILLARIA PINETORUM** Cal., Tulare Co., Jordan Peak. 2770m. J. Andrews coll. (These local, very high altitude plants from the granites of the Sierra Nevada are obscure & have never been grown. May be different to the above.) . . . (15+) **D**
- 1.371.600 : FRITILLARIA PLURIFLORA** Cal., Lake Co., Walker Ridge. 600m. Open, grassy areas in heavy clay. (One of the most distinct & beautiful in the genus, 10-30cm. tall with up to 7, conical bells in a rich, pure unmarked pink. A classic adobe-clay plant from soil that is wet & glutinous in spring but dries like concrete later. A challenge but it has been grown well.) (15+) **D**
- 1.371.700 : FRITILLARIA PUDICA** Idaho, Butte Co., NE of Carey. 1520m. E & SE-facing slopes of stony ridge. (Unlike any other N American. Nodding, clear-yellow bells, sometimes maturing to orange-red shades, on stems of about 20cm. Usually a plant of montane steppe, N into Canada & E to Colorado. Often well-grown but not always easy : likes a cold winter.) (20+) **C**
- 1.371.750 : FRITILLARIA PUDICA** * No data. Seed from a very fine, vigorous, scented form from Wim de Goede. (20+) **B**
- 1.371.800 : FRITILLARIA PURDYI** * Cal., Trinity Co., S of Bear Creek Trailhead. 960m. Open, stony, serpentine slope. (Local on the N Coast Ranges (here at its NE limit). Leaves crowd on the ground & 10cm. stems carry wide, waxy, nodding bells, described by Martinelli as "the shiniest, most delectable fritillaria flowers," brown veined & tinted on a green-white ground.) . . . (20+) **C**
- 1.371.906 : FRITILLARIA RECURVA** * Cal., Trinity Co., N of Junction City. 500m. Serpentine. (Incomparable & unique with pendant, orange-scarlet trumpets. We do not find this a great problem if it is not kept too hot & dry in summer.) (15+) **D**
- 1.372.050 : FRITILLARIA RODERICKII** (possibly *F. grayana*, lost under *F. biflora* in "Jepson") * Cal., Mendocino Co. Among grass in open woodland on clay. From an original coll. by Wayne Roderick. (Known from one or two vanishing sites away up on the NW Pacific coast. Obtuse segments in brown tipped with white. Dwarf & one of the easiest for UK growers.) . . . (15+) **C**
- 1.372.150 : FRITILLARIA VIRIDEA** Cal., San Benito Co., above Clear Creek W of San Benito Mt. 970m. J. Andrews coll. (An obscure, narrow endemic of serpentine-barrens. Nodding bells only on one side of the 30-50cm. stem. According to Martinelli, variable in green, brown & yellow tones. Ness in 'Jepson' says it is "pale green to almost black, not mottled.") (20+) **E**

A chance to grow the waterfall buttercup again

- 1.470.601 : KUMLIENIA HYSTRICULA** Cal., Plumas Co., North Fork Feather River Canyon, near Storrie Bridge. 600m. Wet moss-sheets on west-facing granite cliffs. G. Greger coll. Two colls. available from the Feather River drainage. (30+) **E**

Munz went along with Gray's original description of this delightful little buttercup as *Ranunculus hystriculus* but the latest Californian flora, 'The Jepson Manual', follows Greene and splits it into a separate genus. Suit yourselves but it does differ from other buttercups in several features of the flower & seed structures. Endemic to vernal wet granites in the coniferous forest zone of the Sierra Nevada, where, according to Dwight Ripley, "it is so local that collectors have been known to spend a lifetime in that range without ever setting eyes on it." It was once very successfully grown from a Wayne Roderick collection and exhibited (gaining a PC) in the UK by Joy Hulme. That was a long time ago but Joy tells us she would recommend

a rich but very well-drained soil and she thinks she lost it through the plant becoming over-dried in summer. The rounded leaves are crenate or lobed and the buttercup-flowers are carried away from the basal rosettes on decumbent stems of about 15cm. The large white petaloid sepals are the prominent feature, surrounding the central cluster of stamens and small, yellow-green, gland-like petals or honey-leaves, as in *Helleborus*. As its habitat on the moss-sheets of wet rocks becomes drier in late spring, it goes dormant, dying back to a cluster of fleshy roots & leaving little trace. We have not listed this since the winter of 1989-90. Definitely in the category of 'Minor Treasures' says Dwight. "A little charmer" says Joy.)

- 1.470.602 : KUMLIENIA HYSTRICULA** Cal., Plumas Co., North Fork Feather River Canyon, W of Cresta Dam. 490m. (30+) **E**

A : \$2.00 ; £1.50 ; DM4,- ; FF14.- C : \$4.00 ; £2.50 ; DM7,- ; FF23.- E : \$7.00 ; £4.50 ; DM12,- ; FF41.-
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Lewisia : a *Lewisia stebbinsii* seed collection at last

- 1.496.400 : LEWISIA COTYLEDON** (var. *cotyledon*) Cal., Siskiyou Co., Deadwood Lookout Road, W of Yreka. 1750m. Serpentine fissures along summit ridge. (The classic saxatile plant, occurring here & there on the serpentines of the northern ranges. Flat rosettes of succulent, spatulate leaves & panicles of flowers, usually white or pale-pink, striped with pink or red.) (20+) **B**
- 1.496.500 : LEWISIA COTYLEDON** var. **HECKNERI** * Cal., Trinity Co., N of Junction City. 1640m. Fissures on vertical, shaded, serpentine cliffs. (A disjunct taxon limited to this area. Toothed leaf-margins & wide panicles of the most sumptuous flowers, twice the diameter of the type-race, in white richly striped pink. The race which has given size to the garden-hybrids.) (20+) **C**
- 1.496.701 : LEWISIA KELLOGGII** Cal., Madera Co., Shuteye Peak (Sierra Nevada E of Merced). 2310m. Granite. J. Andrews coll. (A very desirable and very local species (almost all are), mainly from the decomposed granites of the N Sierra Nevada above 2000m. This is also one of the least-known in gardens & we can make no suggestions regarding cultivation. Dense rosettes of leathery, spoon-shaped leaves, withering in summer, on which sit the pink or white flowers on 3cm. stems. Seed collection of this is unpredictable as the local rodents dig-up the roots for food, scattering flowers & seed-capsules widely.) (15+) **E**
- 1.496.801 : LEWISIA LEEANA** * Cal., Shasta Co., Castle Crags, SW of Castle Lake. 1700m. Gravelly areas between serpentine outcrops on open slopes. (Rosettes of succulent, linear leaves, flat or cylindrical, send up many-flowered panicles. Here, about 15cm. high & mainly with bright magenta-pink flowers. A seldom-collected plant of high altitudes, up to 3300m., in N California & SW Oregon, usually on serpentine. Not easy but treat as the *L. cotyledon* group. Mature seed is dark-brown, not black.) (15+) **E**
- 1.496.900 : LEWISIA NEVADENSIS** * Cal., Humboldt Co., SSW of Willow Creek. 1420m. Open area among sparse *Pinus*. (One of the easiest to grow. A summer-dormant plant of vernal wet sites. Usually white but some shell-pinks here) (20+) **B**
- 1.497.000 : LEWISIA OPPOSITIFOLIA** * Oregon, Josephine Co., Waldo Hill. 600m. Among serpentine detritus along gully. 13.6.95 (A type locality coll. of this pretty, summer-dormant species. In its 'pure' form an Illinois Valley endemic. Narrow, blunt, succulent leaves and 15cm. umbels of up to 6, rounded, white flowers, occasionally pink in the bud, with red-fringed sepals. A plant of stony 'flats' and along the sides of gulleys, seasonal seeps, very wet in spring but completely dried-out in summer.) (20+) **D**
- 1.497.200 : LEWISIA REDIVIVA** * Wyoming, Albany Co., E of Centennial. 2700m. In granite grit of open, stony 'flats'. 15.7.95 (We think this is perhaps the most beautiful and thrilling of all N American plants. The tiny clusters of fleshy, linear leaves are hardly noticeable under the huge, diaphanous, water-lily flowers, appearing successively on the shortest of stems. The Wyoming colonies, though wildly variable in flower-shape & colour, are generally of a richer pink than we have seen in gardens.) (20+) **C**
- 1.497.202 : LEWISIA REDIVIVA** * Idaho, Butte Co., NE of Carey. 1520m. E & SE-facing slopes of stony ridge. (All the seedlings which have so far flowered with us have been white. It is rather similar, in fact, to those separated as var. *minor* and we suspect that there are at least two distinct taxa currently included under *L. rediviva*. Smaller, rounder flowers than the preceding. All these forms of *L. rediviva* do well with us treated in precisely the same way as our other summer-dormant plants) (20+) **D**
- 1.497.230 : LEWISIA REDIVIVA** Cal., Napa Co., N of Calistoga, The Palisades. 840m. J. Andrews coll. (The first time we have listed seed from the Central Valley of California, west of the Sierra Nevada. Here *L. rediviva* is a lower altitude, early flowering plant and seems restricted to serpentine. These populations may represent another taxon. Expect especially large pink flowers.) (20+) **D**
- 1.497.301 : LEWISIA REDIVIVA** var. **MINOR** * Cal., Kern Co., Mt. Pinos. 2680m. In granite grit in summit area. (A high altitude race, from 2000-2700m., most distinct where we have seen it. Local on the drier interior ranges from the San Bernardino into W Nevada. An exquisite little plant, altogether a reduced version with rounded, pearl-white flowers and bronze sepals.) (20+) **D**
- 1.497.302 : LEWISIA REDIVIVA** var. **MINOR** * Cal., Inyo Co., White Mts. 2650m. Ridge of fragmented shale. (15+) **D**
- 1.497.401 : LEWISIA STEBBINSII** California, Mendocino Co., ESE of Covelo, Hell's Half Acre. 1600m. Open, gravelly slope. J. Andrews coll. (The most recently discovered member of this genus only known from one or two sites around Hell's Half Acre. It is barely in cultivation & Philip Bauk who grows the National Collection at Ashwood (West Midlands, UK) considers it is definitely in the "new & rare" category. We have a few plants raised from a pinch of 1995, late-collected seed and would not consider it "difficult" so far but comparatively little seed is set here, even with hand-pollination. We need to maintain a larger number of clones in cultivation to ensure an annual supply to list. In 1998 roads were down & we could not even reach the habitat to attempt to make a worthwhile seed collection. John made it this year. His timing was perfect providing us with an unprecedented and significant collection which we hope will ensure that this attractive little plant becomes well-established in the hands of enthusiasts. Most distinct in its leaf-shape and short, radiating, ground-hugging stems, each carrying up to 5, upward-facing, rose-pink flowers, veined with deeper rose. Summer-dormant, it should be treated like *L. rediviva*, though it does not appear until spring.) (15+) **E**
- 1.497.610 : LEWISIA TWEEDYI** * No data. The famous endemic of the Wenatchee granites, in Washington. Acknowledged queen of the lewisias (though we get a bigger kick from *L. rediviva*) and unlike any other (in fact, removed from the genus *Lewisia* by some authorities on *Portulacaceae*). Rosettes of smooth, fleshy, obovate leaves and immense, silky flowers in palest tea-rose shades of salmon, apricot and cream. Not difficult with care in a very gritty, lime-free mix, dryish from late summer to spring. (20+) **C**

Trillium : experiment with some excellent 1999 seed

Problems over seed germination of this fashionable & beautiful genus remain unresolved. As the Cases state in their monograph, "published experimental documentation of the germination phenomena is surprisingly skimpy." *T. rivale* we know can be safely dried. We have received several reports that dried seed we have distributed in past years has germinated

satisfactorily. So, this year we list carefully dried & stored seed of a wider range. We suggest soaking this in warm water & washing thoroughly to remove the fleshy eliosome before sowing. Do let us know the results, whether positive or negative. With conventional exposure to outdoor temperatures you may not have any germination before spring 2001.

- 1.919.520 : TRILLIUM ALBIDUM** * No data. Described by Case as "one of the showiest of the western sessile trilliums ... a very distinct and splendid species" Distributed through NW California & SW Oregon. Robust & about 50cm. tall, carrying broad leaves, blotched with dark grey-green, surrounding the sessile flower with upright or slightly spreading creamy white petals.) (15+) **D**
- 1.919.830 : TRILLIUM CERNUUM X ERECTUM** * No data. Hybrids between these occur in the wild. As the *T. erectum* is the red form, expect "all possible combinations of form, structure and color" heavy on reds & pinks rather than the white of typical *T. cernuum*. Both species grow in acid, humus-rich soils in wet woodlands, in the NE of the USA & in adjacent Canada. (15+) **D**
- 1.920.120 : TRILLIUM CUNEATUM** * No data. One of the largest & most vigorous of the sessile eastern species. A plant of wooded hills from Kentucky & Tennessee into Alabama & N Carolina, especially on limestone. Clumps of stems up to 50cm. high with mottled leaves. Green, purple-tinged sepals surround the upright petals in shades of maroon, yellow, green or brown. (10+) **D**
- 1.920.530 : TRILLIUM ERECTUM from PINK FORM** * No data. Pink-flushed white form of this variable species. . . (10+) **D**
- 1.920.535 : TRILLIUM ERECTUM from PALE YELLOW FORM** * No data. The most frequent soft-yellow form . . (15+) **D**
- 1.920.620 : TRILLIUM FLEXIPES** * No data. The white flowered species of the wooded, E central lowlands, S of the Great Lakes. Outward-facing, creamy white flowers on stout stems 30cm. or more tall. It hybridizes readily with the closely allied *T. erectum*, producing hybrids with an enormous colour variation. Horticulturally "an outstanding species" writes Case. (10+) **E**
- 1.920.950 : TRILLIUM GRANDIFLORUM f. ROSEUM** * From the exquisite pink form of this superlative, well-known species with large, full-petaled flowers on 30cm. stems. These open pale pink and deepen as they age. This variation is apparently not infrequent in the Blue Ridge Mts. of Virginia but we have no idea how reliably it reproduces from seed. (10+) **E**
- 1.922.301 : TRILLIUM RIVALE** Oregon, Josephine Co., SW of O'Brien. 550m. Among moss on level, stony areas under *Pinus*. (An exquisite little endemic from both sides of the serpentine ranges dividing Oregon & California. Successful in peat-bed conditions in UK gardens. Less than 15cm. high with white or palest pink flowers, more or less variably speckled with purple.) . (10+) **D**
- 1.922.820 : TRILLIUM SULCATUM** * No data. A "robust and splendid plant" according to Case. Of comparatively limited distribution in the wild, along the Cumberland Plateau from SW Virginia to NE Alabama. Allied to *T. erectum* & *T. flexipes*, this is one of the largest leaved pedicellate species with stems up to 70cm. carrying rich maroon-red flowers. (10+) **E**
- 1.923.120 : TRILLIUM VASEYI** * No data. Another pedicellate species of fairly restricted distribution in nature. Mainly a plant of steep, sheltered, wooded slopes on the western mountains of the Carolinas, progressing south into the neighbouring states. Flowers with thick-textured, crimson petals, with impressed veins, on stems about 50cm. high. (15+) **E**

A choice little rarity from the Rio de la Plata listed for the first time

Nothoscordum ostenii is a choice, little 'sweetie' and apparently extremely scarce and local in nature. Alberto Castillo sent Brian Mathew a few wild-collected seeds of this *Brodiaea* relative in 1987. He grew these and gained a P.C. for the species in April, 1992. Brian kindly sent us some seed the following year and we have now an adequate enough parent stock to see this widely distributed and, we hope, firmly established in cultivation. We have been growing it under unheated glass along with our other winter-growing bulbs and it has fitted in well, proving

hardy and comparatively trouble-free (it is surprising just how hardy these bulbs of the Rio de la Plata delta area are). Delicate, thready leaves and wiry stems, about 10cm. high, with umbels of rich chrome-yellow, freesia-scented flowers, opening widely and striped green on the outside. It has not so far shown any enthusiasm at all to increase vegetatively (so do not be frightened by the name : it is nothing like the pernicious *Nothoscordum inodorum* & it might end up in another genus). "An excellent little bulb" comments Brian. We agree.

- 2.659.000 : NOTHOSCORDUM OSTENII** * Uruguay. No further data. Ex a J.A. Castillo coll. (20+) **E**

Many more European, W Asian, North American, South American and lots of East Asian species will be in our next list, which will be with you before the end of 1999. All going well, a list concentrating on southern hemisphere species will be issued early in 2000

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- 6.360.003 : **CYCLAMEN COUM** from **PLAIN LEAVES, WHITE FLOWERS** Dark-nosed whites with dark leaves. (15+) C
- 6.360.006 : **CYCLAMEN COUM** from **PATTERNED LEAVES, PINK FLOWERS** Variably marked foliage. (15+) B
- 6.360.010 : **CYCLAMEN COUM** from **PLAIN & PATTERNED LEAVES, ALL COLOURS**. Pinks, reds & whites. (15+) B
- 6.360.055 : **CYCLAMEN COUM** from **NYMANS STRAIN** This is an extremely choice selection, not at all easy to grow and seldom setting much seed. It is derived from a wild collection under E.K. Balls 371, which had survived since the 1930's at Nymans in Sussex. Seedlings were wheedled out of the head gardener in the 1970's by Ruth Voelcker. A very dwarf plant with intensely coloured carmine-pink flowers and small, dark leaves, each one broadly banded with pure silver. Exquisite. (10) E
- 6.364.000 : **CYCLAMEN HEDERIFOLIUM** from **MIXED LEAF-FORMS** An infinite variety of shapes & patterns. (20+) A
- 6.364.050 : **CYCLAMEN HEDERIFOLIUM** from **APOLLO STRAIN** Derived from seed, given to us decades ago by Ken Aslet from the original 'Apollo' grown at Wisley. This had been selected by E. A Bowles for its outstanding foliage, intricately silver-patterned & often pink-flushed when young. These leaf-forms need selection when grown from seed. We have seen plants labelled as this but bearing no resemblance to the original. We do not like these names but we have to distinguish them (15+) D
- 6.364.055 : **CYCLAMEN HEDERIFOLIUM** from **APOLLO ARROW-HEADS** Narrow leaved silver-shield filigree. (10+) D
- 6.364.100 : **CYCLAMEN HEDERIFOLIUM** from **RUBY GLOW** Phil Cornish selection in rich magenta-purple. (10+) E
- 6.364.140 : **CYCLAMEN HEDERIFOLIUM** from **SILVER ARROWS** Long, narrow, silvered, arrow-head leaves. . . (10+) D
- 6.364.160 : **CYCLAMEN HEDERIFOLIUM** from **SILVER LEAVES** Jim Almond's distinct selections. (10+) D
- 6.364.161 : **CYCLAMEN HEDERIFOLIUM** from **SILVER LEAVES, WHITE FLOWERS** Similar foliage to above..(10+) D
- 6.364.180 : **CYCLAMEN HEDERIFOLIUM** from **SCENTED FLOWERS** Originally from Tom Blanchard & collected near Thessaloniki early in this century. We cannot smell this (nor wild *C. persicum*). A good deep pink with a fine leaf. (10+) C
- 6.366.005 : **CYCLAMEN MIRABILE** from **'TILEBARN JAN'** A Peter Moore selection with white flowers with serrated margins to the petals above well-marked leaves, pink-flushed when young. Some seedlings may be pinkish or have pink 'noses'.. (10) E
- 6.366.010 : **CYCLAMEN MIRABILE** from **'TILEBARN NICHOLAS'** Dark central area on leaves with a brilliant silver surround, suffused with bright, luminous pink in autumn. Normal pink flowers. Perhaps the finest Peter Moore selection. (10) E

Hellebore seed from named clones & selected colours

Seed set varied greatly with us in 1999 but we have been able to collect some top-quality hybrid hellebore seed, though from a limited number of variations. The following range is from *H. x hybridus*, often referred to as *H. orientalis* hybrids, though many additional species are involved. Ideally this should be sown, in the northern hemisphere, as soon as possible after ripening & we apologise for the late despatch of our list. Soaking in warm water before sowing may help : see further comments earlier in this list under the species. The hellebore hybrids named in Dorset by Eric Smith and later by ourselves were obviously chosen according to criteria different to those which influenced other breeders. Ballard concentrated on symmetrical, bowl-shaped flowers, usually in clear colours. We primarily sought vigorous clones, which looked good in the garden. We seldom selected for flower characteristics alone. Unlike Ballard, Eric was always keen on spots and speckles, so

these are much in evidence. More species were involved, so we have more influence from such elegant, small-flowered plants as *H. torquatus*. We were also interested in extending the flowering season. When we left the nursery, we retained a range of what we considered to be the best named clones. In Brian Mathew's assessment, "quite a number...are holding their position as some of the finest cultivars ever raised." As with all open-pollinated hybrid hellebore seed, we can give no assurance that this will produce anything remotely resembling the parents but perhaps their genes may be carried on to future generations. Please do not confuse the situation by applying any of these cultivar names to the seedlings. The descriptions apply to the seed-parent, not necessarily to what you might expect from the seedlings. You can only hope. As we have most of our hybrid seedlings sorted out & planted in colour categories now, we have nothing to offer as "mixed" seed this season.

- 6.564.015 : **HELLEBORUS** from **'CASSANDRA'** A very rich black-purple of vigorous disposition, forming good clumps. Not particularly outstanding as an individual flower but somehow the one visitors to our garden always home into (15+) D
- 6.564.018 : **HELLEBORUS** from **'CITRON'** From one of the best-known Helen Ballard yellows. Not actually any yellower than some others like 'Sirius' & 'Orion' but with the characteristic Ballard shape : rounded flowers with overlapping sepals. (15+) E
- 6.564.020 : **HELLEBORUS** from **'COSMOS'** Greenish white bowls densely & evenly spotted all over the interiors with crimson. Rose-pink flushed, crimson-veined exteriors. A paragon from Eric Smith with rounded 'Ballard-type' flowers. (15+) D

- 6.564.050 : HELLEBORUS from 'ORION'** An outstanding, floriferous garden-plant. Primrose yellow with dark nectaries & a maroon basal blotch. "A particular favourite" of Brian Mathew & illustrated on the cover of his monograph on hellebores. In our experience, it seldom produces children like itself but we have been sent a photograph of a seedling which looks identical. (15+) D
- 6.564.060 : HELLEBORUS from 'PHILIP BALLARD'** Only a few of the clones named by Helen Ballard really merit the hype surrounding her plants. This is one, appropriately named after her husband, so she obviously thought it was rather special as well. Very robust with very large, rounded flowers in blue-bloomed maroon-black, it really is spectacular & always stands out. A good proportion of the seedlings can resemble the original and we have included seed from some selected, similar children. (10+) E
- 6.564.121 : HELLEBORUS from CREAM & WHITE-FLOWERED HYBRIDS** Some with slight basal speckling . . (15+) C
- 6.564.130 : HELLEBORUS from H.O. GUTTATUS HYBRIDS** Whites, sometimes green or cream tinged but all with a distinct basal zone of maroon or crimson speckles, which in some cases bleed together into streaks. From some good parents. . . . (10+) C
- 6.564.150 : HELLEBORUS from PURPLE-FLOWERED HYBRIDS** From 'Andromeda' seedlings & other good plum and purple shades, including what Eric Smith used to call 'Midnight Sky' types (purple with an even dusting of darker speckles) and 'Old Rose' (deepest rose-pink with a bluish bloom). From some really good parents so should produce some fine seedlings (15+) C
- 6.564.151 : HELLEBORUS from SELECTED PURPLES** We have separated out a few outstanding clones, selected from the above, mostly with the bowl-shaped, even flowers which appealed to Helen Ballard. This seed is from unnamed plants but ones which are, quite frankly, better than their parents. These should produce some fine seedlings but there are no guarantees. (10+) D
- 6.564.190 : HELLEBORUS from ZODIAC-TYPE HYBRIDS** Eric Smith's category for what are, in effect, *H. guttatus* types with a pink, instead of white, ground colour, all with a zone of maroon speckles. Eric's unrivalled speciality (15+) C

Iris : hybrid 'junos', 'reticulatas' and 'stylosas'

- 6.575.495 : IRIS BUCCHARICA X VICARIA** Some distinct clones of both these amenable plants are involved as parents. (8) C
- 6.575.500 : IRIS BUCCHARICA HYBRID** Winged, yellow falls & cream-white standards. Open-pollinated seed (10) B
- 6.575.590 : IRIS MAGNIFICA X BUCCHARICA** Crosses with lemon-yellow & orange-yellow forms of *I. bucharica* (8) C
- 6.575.595 : IRIS MAGNIFICA X VICARIA** Parents include bluish *I. vicaria* 'Sangardak' with a yellow-green blotch (8) C
- 6.575.600 : IRIS MAGNIFICA X WILLMOTTIANA** Several outstanding clones of *I. magnifica* are involved, including a dwarfier one with a markedly orange blotch on the falls, pollinated with *I. willmottiana*, grown from wild collected seeds (8) C
- 6.575.790 : IRIS RETICULATA from GARDEN HYBRIDS** Seed from a wide range of hybrids in blues and purples. . . (10) B
- 6.575.800 : IRIS RETICULATA from ARMENIAN HYBRIDS** Seed from hand-pollinated crosses, made in Canada by Alan McMurtrie. A wild form from Armenia with red-purple to pink flowers is somewhere in the parentage of all the seeds. *I. hyrcana* & *I. bakeriana* are involved in some, as well as the cultivars 'Cantab', 'Gordon', 'Pauline' & 'J.S. Dijt'. (10) E
- 6.576.020 : IRIS UNGUICULARIS from VARIOUS CULTIVARS** Seed from Brian Mathew collected from a number of named cultivars of this beautiful winter-flowering iris. Usually reliable in a well-drained, sunny site in most of the UK, though we are too wet here for the Algerian & E Mediterranean forms to be a success outside here (the N Turkish *I. lazica* is the one for wet areas). Expect lilac to lavender-blue flowers of varying shades produced all winter from the clumps of narrow leaves (10+) C

Fresh Lapageria seed from named Chilean clones

When we were in Chile in 1991, we purchased a number of named Chilean clones of this aristocrat among climbers. Though you can find the odd variant in the garden-centres of Santiago, (as you can in commerce in Europe) there is, as far as we know, only one source propagating a wide range of the Chilean national flower : an agricultural college in Malleco province. They have not only selected & named clones themselves but propagate selections, which we believe originated with the Mapuche peoples, ancient inhabitants of the Araucanian region, for whom this was a sacred flower. There are some outstanding variants in deeper reds, pinks, ivory & white. The "orange" was a little optimistic but the white with a picotee edge of crimson

is something else. We will not burden you with the names of the parents, as the seed will not come 'true' and the clonal names should not be used but it is mainly from a beautiful ivory to soft, peachy pink, pollinated with the picotee & a deep red. We can tell you pale pinks do crop up in the seedlings but most will be the standard rosy red. Most seed is still on the plants here but the capsules will be dropping any day now. It will be washed & sent out damp-packed. Sow immediately in frost-free conditions & don't allow it to dry out. It grows best in the cooler temperatures of spring & autumn. A plant of dense *Nothofagus* woodland needing shelter (but tolerating considerable frost), some shade & high humidity in a humus-rich soil.

- 6.660.120 : LAPAGERIA ROSEA from NAMED CHILEAN CLONES** (5) E

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