

News from

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NEWSLETTER & SEED LIST

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WHO CARES?

Recently Ron McBeath commented to us that no-one will be replacing him as Assistant Curator at the Royal Botanic Garden, Edinburgh. He remarked that when he joined the staff there, there were five Assistant Curators. Now this has been reduced to two. The competence & experience of John Main, the Curator himself, whom we have known at least as long as Ron, is not in doubt but we cannot see how it can be possible to maintain the same standard with three people instead of six.

Some of us regard one of the main functions of a botanic garden as growing some sort of annotated collection of living plants and feel that each one should be striving towards excellence in its own field, no matter how limited the parameters. The person in charge of such a collection and responsible for its maintenance must be a curator, literally the "person who cares". Current thinking among some administrators is that this concept is totally out of date. Such collections are seen an undesirable reminder of a trophy-hunting, imperial past. We suspect that this thinking is largely driven by expediency and finance. Competent curation of a collection is low-profile and expensive.

The two best-known British botanic gardens, Edinburgh and Kew, now have to rely increasingly on raising their own financial resources. Once funded wholly by the tax-payer, they are now independent, privatised "charities",

albeit ones which are supported by a substantial, even if annually decreasing, government hand-out. Continually raising money means maintaining the glossy, media-friendly image, essential in a world where there is so much competition for the attention of those with open cheque-books.

How much the administration actually cares about either the plants or the gardens comes far down a list of priorities headed by its ability to raise money. We note that the incipient Kew clone, the National Botanic Garden of Wales, has a director of horticulture rather than a curator. We assume no-one is expected to care any more.

Thank you for flying PI-PC-K

As his flight took off for South Africa last year, Jim opened his British newspaper to find an account of "the first piece of industrial action at Kew since the gardens were established more than two centuries ago." Whatever else the post-imperial, politically correct administration at Kew may be remembered for, it was at least a unique and historic achievement to have brought about the first strike in 200 years. The regional union organiser said staff were apparently concerned about performance-related pay. "How are they going to

De mortuis

"1996 - a good year for deaths" remarked Will McLewin the other day. One who departed suddenly was John Kelly, a close friend of ours in the days before he turned himself into a bland media-person and popular gardening journalist. It was with some pleasure we read his posthumous article on peat in the June, 1997, AGS Bulletin. The tidy polemic was a fitting obituary and recalled his earlier acerbic & perceptive personality. "Ill informed putative environmentalists" who are "inaccurate by 18,870%". That's our old John.

measure performance? The number of weeds they pull up? Or perhaps the growth of plants for which my members are responsible. I have had more intelligent conversations with plants than with Kew management." While some of us far removed from Kew suspected the administration might have taken-off into orbit, it is apparent some of the staff thought so as well. A year or so ago, one employee, still striving to maintain some of the currently unfashionable curatorial standards, commented to us that " 'They' all think I'm mad, here, you know." Time will tell.

Knights of the Garden Table

As some of you may have noted in the past, our all too infrequent correspondence with Don Elick, is always good for a quote. This spring Don commented that "it was a delight to read through all the home-grown seeds that you are able to offer. Surely this is what professional seed-collecting is all about. Your accomplishment is magnificent. You should be knighted." Now, Don, it is a kind thought but we have to tell you that Americans living in Japan do not cut much ice with those who hand out knighthoods in this country. You must also appreciate that our activities, while they may seem "a magnificent accomplishment" to you, are regarded as an undesirable anachronism, involving ripping-off the natural inheritance of indigenous peoples, by some now in the botanical establishment. We might add that they would probably have quite a low opinion of someone like yourself or indeed of most of you who may read this, dismissing you

all as 'stamp-collectors', 'train-spotters' or 'anoraks' (though we doubt if those in such positions would know or use all or any of these epithets, even if they are in the latest Oxford English Dictionary). Apart from all that, you can hardly expect us to have any chance of being offered a knighthood, or anything else in British horticulture, if we make a habit of commenting on the activities of the hypersensitive horto-botanical establishment here. A few remarks about the policy of the Alpine Garden Society management and someone writes "Goodbye to your Lyttel (or was it little?) Trophy". Mention the Royal Horticultural Society and someone else says "Oops, there goes your V.M.H.!". They are right. You have to cultivate more than plants if you aspire to such baubles. We are already labelled "iconoclasts" and "eccentrics" and, heaven knows, there are fewer of those around nowadays in Britain than there are knights.

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PLEASE HELP US BY PRINTING YOUR NAME & ADDRESS CLEARLY. NO CHARGE FOR AIRMAIL ON SEEDS OR LISTS.

Old and new customers please read and understand

Shortly after you receive this list, we shall be abroad for a few weeks. Cultivating and harvesting 'home-grown' seed, combined with issuing this summer-list, means that we have substantially less time for travelling than in the past. If we are going to offer a wide range of material, it is essential that we find some time to collect. We have tried to mail this to you as soon as we could but it has not been possible to put a list of 1997 harvested seed together earlier. We felt it was best to get it into your hands before we left, rather than after we returned. There will, therefore, be a somewhat longer delay

than usual before you receive your order. We shall get the seed to you in plenty time for sowing. Give us a couple of months and, if your order is still not with you, check with your bank to find out if your cheque has been cashed - we do not pay in cheques until after orders have been despatched. If it has been cashed, let us know immediately. Literally one or two items are 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 as reliable ourselves.

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

In this early list, we offer seeds from summer-dormant species, along with a few other genera, such as *Helleborus*, which are best sown as soon after harvesting as possible. A few genera like *Allium* & *Arum*, which should fit in here, are late in maturing their seeds and will be included in our next list, along with 'alpiners' & other larger herbaceous plants. Most seeds in this section are from cultivated plants & 1997 has seen further expansion of the area for growing our seed-producing, summer-dormant parent stocks. We steadily increase the range of hand-pollinated seed offered from these plants, almost all raised from seed of wild origin. With the help of other growers, we are listing an increasingly complete range of such genera as *Crocus*, *Cyclamen*, *Fritillaria* and *Narcissus*. In addition to this home-grown seed, there are a wild collections made in Greece by Marcus Harvey, in Turkey by Norman Stevens & in Italy, Slovenia, Croatia, Bosnia & Hungary by Will McLewin. We had hoped for a wider range of material from the Harvey, Stephens & Stevens trip to Turkey but the season was more than a little difficult with virtually no seed set on many species. Wild collections are an unpredictable gamble & we underline the importance of cultivated plants & seed-storage. The

collections from the republics of the former USSR were organized by Will McLewin or by Janis Ruksans in collaboration with local botanists. There are one or two 'seed-bank' wild collections from 1996, where no other material is available. The collection date is given in all cases. The 1997 cultivated seed is clearly marked (*) and in most cases the parents are from a known wild population. Field data given refers to the parent-stock. Some cultivated species without field data are included on a geographical basis and these are marked accordingly : 'no data' after the name. The six-digit reference numbers here, as is the case with the seven-digit numbers covering other regions, are our permanent references for populations within 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. These numbers run in the alphabetical order of the plant-names, as well as in numerical order. 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.

- 160.402 : ANEMONE BLANDA** Greece, Viotia, Oros Parnassos. 1500m. Openings in coniferous woodland. 7.6.96. (Incomparable woodlander. Deep blues, sometimes called '*ingramii*', are common on Parnassus, but it can be paler blue & white.) (20+) **B**
- 161.003 : ANEMONE HORTENSIS** Italy, Sardinia. 850m. T. Norman coll. May, 1996 (A neglected W Mediterranean species & a special delight of Corsican & Sardinian woodlands with its myriad, many-petalled flowers in soft violets & pinks.) (20+) **B**
- 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**
- 185.550 : ARISTOLOCHIA LONGA subsp. PAUCINERVIS** * Morocco, Middle Atlas Mts., SW of Ain el Leuh. 2000m. Stony, open, limestone slopes. (A dwarf, tuberous-rooted perennial with weird, elongated, yellow-brown flowers.) (10) **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**
- 227.770 : 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**
- 27.840 : 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**
- 228.090 : BELLEVALIA PYCNANTHA** * No data. Near *B. forniculata* but with heads of strangely crumpled bells in deep, inky blue-black. An easily grown plant of moist, mountain-meadows in E Turkey through Transcaucasia into NW Iran. (15+) **A**
- 228.130 : BELLEVALIA RIXII** * Turkey, Van, NNW of Baskale. 2800m. Talus on open slopes. (Only known from around the type-locality. Falcate leaves & 5cm. stems of purple-brown flowers with violet anthers. Not easy. Best in an alpine-house pan.) . . . (8) **E**
- 228.150 : BELLEVALIA ROMANA** * Greece, Ioanina, Mitsikeli. 860m. Ledges on S-facing, limestone cliff. (15+) **A**
- 228.410 : BELLEVALIA WEBBIANA** * No data. N Italian species near *B. romana* but with deep purple-brown flowers. (20+) **A**
- 231.900 : BIARUM ARUNDANUM** * No data. Spanish race of the widespread, very variable *B. tenuifolium*. Dark chocolate, velvety spathes with projecting, black-purple spadices, appear near the ground, before the narrow leaves, in autumn.) (8) **C**
- 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, little, brighter blue bluebell - easy & not seen as often as it should be.) (20+) **A**
- 240.100 : BRIMEURA FASTIGIATA** * France, Corsica, Pointe de Revellata. Sea-level. Among moss & stones in wet-flush (dry in summer). (Tiny bulb, only a few cm. high. Dense racemes of wide-open bells, lilac-pink in this form.) (15+) **B**

Colchicum : some new 1997 collections from Greece & Turkey

Not such a fashionable genus at present. It may well become so in future. Few gardeners appreciate the diversity within it. As with *Crocus*, there are both spring & autumn-flowering species. As well as the larger ones, which include some truly splendid plants, there are tiny ones suitable for pot-cultivation. Not all are easy, even in a bulb-frame or alpine-house, & several need patience & careful cultivation. They are slower than some

genera from seed & germination can be irregular or delayed but they usually all come up in time & most grow on steadily without too much trouble. Though not currently the fashion in British publications, we think it more sensible to keep *Colchicum* & *Merendera* together in the same genus. The synonyms are given in brackets for those who wish to 'split' them. It is very much a matter of personal opinion.

- 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 with pink flowers in early autumn. . . . (20+) **A**
- 311.505 : COLCHICUM BALANSAE** Turkey, Icel, E of Gulnar. Edges of cultivated fields. N. Stevens coll., 1997 (A fresh coll. of this rather fine, large S Turkish endemic, a rare plant in cultivation. Up to about 12, funnel-shaped flowers in white to purple-pink in autumn from amazingly long-necked corms, followed by upright, elliptic to strap-shaped leaves.) (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 Vronidou. 1000m. N-facing slopes. P.&P. Watt coll. (One of the best of the larger species, distributed from S Europe into W Turkey and accordingly variable. This is the fine form once called *C. bowlesianum* with heavily tessellated, rosy purple, broadly bell-shaped flowers. 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**
- 313.405 : COLCHICUM CUPANII** Greece, Crete, Hania, Omalos. M. Jope 95-43 (Charming, little, autumn-flowering species, excellent in the alpine-house. Pink flowers with purple-brown anthers before the rather variable leaves appear.) (10+) **C**
- 313.705 : COLCHICUM DECAISNEI** Turkey, Antalya, N of Kas. 1250m. Damp hollow in scrub. N. Stevens coll. (Flowers not seen & our guess as to identity, though seems a little large for this species. Should have autumn-flowers in white to pink.) (15+) **C**
- 314.753 : COLCHICUM KOTSCHYI** Turkey, Adana, Nur Da. above Hasanbeyli. N. Stevens coll., 1997 (Medium-sized, species, distributed E through Iraq & Iran. The white or pale-pink flowers often appear early, in late summer.) (10+) **C**
- 315.602 : COLCHICUM MACROPHYLLUM** Greece, Crete, Agios Ioannis (between Hora Sfakion & Agia Roumeli). 750m. Open scrub. M. Jope 96-11 : 22.4.96 (Local in SW Turkey & some adjacent islands & totally distinct in its large, pleated, *Veratrum*-like leaves. Usually with purple-pink & white chequered flowers in autumn, Melvyn Jope, who returned to this colony when it was in flower in October, tells us that not only is it outstandingly prolific & unusually variable in depth of colour here but that there were a good number of plants with pure white flowers. We have never heard of a pure-white *C. macrophyllum* & neither had Brian Mathew who was present with Melvyn at this site. It may be a long shot to expect whites from seed but you can hope.) . . . (10+) **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**
- 316.400 : COLCHICUM PARNASSICUM** Greece, Viotia, Oros Parnassos. 1600m. Among grasses on stony, limestone slopes. 7.6.96 (Pale purple-pink autumn flowers followed by narrow leaves. Endemic to Parnassus & adjacent Elikon only.) (10+) **B**
- 317.710 : COLCHICUM SOBOLIFERUM** (*Merendera sobolifera*) * No data. A distinct little plant with stoloniferous corms, like *C. boissieri* & *C. psaridis*, from SE Europe across to Iran. Starry, white to pink flowers with dark anthers in spring.) (15+) **B**
- 318.101 : COLCHICUM TRIGYNUM** (*Merendera trigyna*) * Turkey, Mugla, Gok Tepe. 1500m. Open stony areas among sparse *Pinus* on limestone. (Variable & near *C. atticum*. White to pale pink flowers in spring over a long period.) (10+) **B**
- 318.204 : COLCHICUM TRIPHYLLUM** * Turkey, Konya, Sultan Da. SW of Aksehir. 1750m. Exposed limestone ridge. (An outstanding, dwarf snow-melt, high altitude species, always coveted by all who see it. It ranges very locally from Spain & Morocco to Iran. Goblet-shaped, pink cups appearing before the leaves fully develop in spring. Not the easiest to grow.) (10) **D**
- 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**
- 333.800 : CORYDALIS WENDELBOI** (subsp. *wendelboi*) Turkey, Denizli, Honaz Dag. 1650m. On limestone at tree-line. N. Stevens coll. May, 1997 (One of many recently recognized taxa, this is a variable, 15cm. high, tuberous-rooted species widespread in SW Turkey. Norman tells us it varies from white to pale-pink here and we hope this may include some of the "large-flowered, fragrant, usually white-flowered plants found in the west of its range" mentioned by Henrik Zetterlund. Seed sown much after September is likely to be very irregular in germination - if it germinates. We have taken appropriate measures to store this until then.) . . . (10+) **E**

Crocus : 1997 : a difficult year for seed at home & abroad

While we seemed to have a good seed-set on much of our cultivated material from the 1996-97 flowering, a lot aborted in the extremely high temperatures we experienced last spring. It may have helped our hellebore seed-set but it ruined many crocuses. Specialist David Stephens had no seed at all to spare this season. In Turkey, the situation was equally catastrophic with a cold season resulting in poor seed-set & late snow-falls covering plants in flower. To generalise, which we do not usually like to do, *Crocus* is the most difficult, among the main genera of 'bulbs' we list, when it comes to both cultivation & maintaining a regular, sufficient supply of seed to 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 & it is necessary to grow quite a large number of corms. Seed-collection is also quite critical & troublesome. Seed of many will always be expensive & in short, irregular supply. Of those listed currently, we could recommend only *C. biflorus* subsp. *pulchricolor*, *C. flavus*, *C. kotschyanus* subsp. *kotschyanus*, *C. speciosus* & *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).

- 339.700 : CROCUS ADANENSIS** * Turkey, Adana, above Kurt Kalesi NE of Duzice. 1000m. Ex KPPZ 93 (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.) (10) **D**
- 339.701 : CROCUS ADANENSIS** * Turkey, Adana, above Kurt Kalesi. Ex a N. Stevens coll. (Norman's coll., made high up above Wolf Castle, has shown more variability. Some are larger-flowered. Some have yellow throats with a diffuse white rim.) (10) **D**
- 340.201 : CROCUS ANTALYENSIS** Turkey, Antalya, Bey Da. N. Stevens coll. May, 1997. (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*. (Limited to the Akseki region but an easy & satisfying, autumn species under glass in the UK. White to palest lilac with a scarlet style.) . . (10+) **C**
- 341.105 : CROCUS BIFLORUS aff. subsp. ARTVINENSIS** * Turkey, Kars, SE of Ardahan. c. 2000m. Ex E. Frank & M. Koenen colls. (From the far NE corner of Turkey, a little-visited area near the Georgian border. A montane, snow-melt plant, which does not altogether conform to the geographically close, obscure *C. b.* subsp. *artvinenses* (little-known from one much lower altitude locality, virtually in a Mediterranean climatic zone) nor to the closely related *C. biflorus* subsp. *adamii* (according to Mathews' monograph, this does not occur in Asiatic Turkey). The *C. biflorus* group is confusing. Feathered flowers in spring.) (8) **E**
- 341.250 : CROCUS BIFLORUS subsp. ISAURICUS** * Turkey, Antalya, Irmasan Gecidi N of Akseki. 1500m. Stony humus under *Abies* over limestone. (Spring-flowering race from the W end of the Taurus. In particularly fine form here - variable in colour & markings. Usually lilac-blue with strong, purple feathering outside. Attractive & satisfactory under glass in the UK.) (10) **B**
- 341.353 : CROCUS BIFLORUS subsp. MELANTHERUS** Greece, Argolida, SW of Ligourio. M. Harvey coll. May, 1997 (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. N. Stevens coll. May, 1997. (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* (also with some *C. chrysanthus* in the wild) & is mentioned by Brian on p.82 of his monograph. Expect variable, mainly lilac, spring flowers but not all with have the black-maroon anthers characteristic of 'true' *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. We include seed listed last year under 339.810 as *C. aerioides*. The experts have reconsidered their initial acceptance of the latter name & pronounced it to be *C. b.* subsp. *pulchricolor*. Never mind - those who have it have a particularly fine form, which did receive an award - but it is not *C. aerioides* (of which we should be hard-pressed to find much, if any, genuine material currently in cultivation.) (15+) **B**
- 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 CAMBESSEDESII** * Spain, Mallorca, Porto Cristo. Ex a D.B. 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.) (15+) **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
- 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
- 342.010 : CROCUS CANCELLATUS** subsp. **MAZZIARICUS** Greece, Pieria, Oros Olimbos. P & P. Watt coll. (Very local on Olympus, where it only grows at around 400m. on the N foothills with some deep lilac-blue, well-feathered forms.) (10+) C
- 342.011 : CROCUS CANCELLATUS** subsp. **MAZZIARICUS** Greece, Argolida, SW of Ligourio. M. Harvey coll., May, 1997. (These two wild seed-collections are of fine quality & the race itself is the most decorative of the five subspecies, well suited to cultivation under glass in the UK, where it can be given the warm, dry rest it needs in summer. The species as a whole, with its characteristic very coarsely reticulate tunic, is a plant of dry habitats in nature, though often growing in heavy, limestone clays.) (10+) C
- 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. Surprisingly hardy in the UK but seldom seen - it does not like being too hot & dry in summer.) (10) E
- 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. Tolerated our hot 1995 summer, dry under glass but maybe best kept cooler.) (10+) E
- 344.219 : CROCUS DANFORDIAE** * No data. From a pale yellow form of this little, variably coloured, spring species, usually dusted with grey-purple outside. From the colder, drier areas of W Turkey, it needs an alpine-house or bulb-frame in the UK. (8) D
- 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
- 344.990 : 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 more 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*. (Extremely local in nature, confined to a few sites in the Mani & the adjacent E finger of the Peloponnese but very easy under glass in the UK. One of the most beautiful & distinct species, prolific with its pale lavender flowers on very long tubes in autumn.) (10+) B
- 345.210 : CROCUS GOULIMYI** * From several forms, including 'Mani White' & the recently described *C.g. leucanthus*. (10) B
- 346.300 : CROCUS KARDUCHORUM** * Turkey, Bitlis, SW of Van Golu. c. 1900m. In clay among deciduous *Quercus*. (Only found in this small area & confused with a form of *C. kotschyanus* for almost 100 years (after another 50 it still is in some bulb lists.). Still little-known in gardens. A very lovely, lilac-blue autumn flower utterly distinct in its arresting, feathery, white style.) (8) E
- 346.703 : CROCUS KOTSCHYANUS** (subsp. *kotschyamus*) * Turkey, Kahramanmaras, Armut Dag. 1300m. Open areas among *Quercus* on limestone. (Lilac flowers, with yellow-blotched throats, in autumn. Excellent grower & increaser.) (10+) B
- 346.710 : CROCUS KOTSCHYANUS** (subsp. *kotschyanus*) * No data - from several E. Pasche colls. - for the garden. (20+) A
- 346.900 : CROCUS KOTSCHYANUS** subsp. **CAPPADOCICUS** * Turkey, Sivas, Ziyaret Tepe. c. 2000m. Open sites, in turf & among limestone rocks. (From a type-locality coll. of this lovely Central Anatolian race. Lilac, autumn flowers, beautifully veined with a darker shade. Well worth nurturing under glass - not so vigorous as the type-race but not difficult.) (15+) C
- 347.101 : CROCUS KOTSCHYANUS** subsp. **SUWOROWIANUS** * Turkey, Rize, Ovit Dag. 3000m. Dryish, stony ridges. (Seldom grown white-flowered race from high altitudes in E Turkey into Georgia. Flowers early here - a temperature drop in early July brought some of our corms into flower. Not so easy, perhaps best not too hot in summer & slower to flower from seed) (15+) D
- 347.402 : CROCUS LAEVIGATUS** * Greece, Evia, above Nea Artaki. 300m. Clearings among *Pinus* & *Cistus*. (Endemic to Greece & its islands. Very variable autumn & winter flowers in white to lilac with diverse purple markings outside.) (10+) B
- 347.500 : CROCUS LEICHTLINII** * Turkey, Urfa, ESE of Siverek. Ex selected good 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, slatey outside, deep yellow throats. A moisture-sensitive plant for the specialist, little known in cultivation.) (8) E
- 347.501 : CROCUS LEICHTLINII** * Turkey, Elazig, SE of Elazig. Ex KPPZ 182. (8) E
- 347.601 : CROCUS LONGIFLORUS** * Italy, Sicily, Madonie Nebrodi. Ex an A. Edwards coll. (Autumn-flowering from S Italy & Malta. Scented, pale to deep purple flowers, often with dark veins on buff outside. Quite easy in the alpine-house.) (10) C
- 347.800 : CROCUS MALYI** * Croatia, Velebit Planina above Karlobag. 500m. Among limestone boulders. (A splendid Velebit endemic. Big, pure-white flowers with yellow throats in late spring. Said to be excellent outside in sun in the UK.) (10) C

A : \$2.00 ; £1.50 ; DM4,- ; FF13.- C : \$4.00 ; £2.50 ; DM6,- ; FF21.- E : \$7.00 ; £4.50 ; DM12,- ; FF40.-
 B : \$3.00 ; £2.00 ; DM5,- ; FF17.- D : \$5.00 ; £3.50 ; DM9,- ; FF30.- F : \$9.00 ; £6.00 ; DM15,- ; FF50.-

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

- 348.210 : CROCUS MICHELSONII** * No data. Like *Fritillaria raddeana* s, endemic to the Kopet Dag area of S Turkmenistan & adjacent NE Iran. It inhabits open *Artemisia*-steppe in a severe continental climate and demands skilled cultivation. A very beautiful spring flower, translucent white inside, stained or speckled outside with lilac-blue to intense violet-blue. (8) F
- 348.609 : CROCUS NEVADENSIS** * Spain, Malaga, E of Ronda. Ex an R. & R. Wallis coll. (From a fine form of this spring-flowering species from SE Spain & NW Africa, with creamy white to pale lilac flowers. Wild, Sierra Nevada seed listed some years ago as this, under 348.602, proved to be an odd plant in the autumn-flowering *C. serotinus* group (q.v. under 352.099)) (8) D
- 348.800 : CROCUS NIVEUS** * Greece, Messinia, S of Kalamata. 100m. Olive groves on limestone. (Magnificent, pure-white, autumn-flowering species of the S Peloponnese with gorgeous scarlet styles. A good grower in the bulb-frame or pots.) (10+) C
- 349.305 : CROCUS OLIVIERI** (subsp. *olivieri*) Greece, Arkadia, E of Tripoli. 750m. M. Harvey coll., May, 1997. (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 brown shading on the perianth-tube.) (10+) C
- 349.605 : CROCUS OREOCRETICUS** * Greece, Crete. Ex Brickell & Mathew 10124 (Autumn-flowers in mid- to deep lilac with purple veining & silvery to buff exteriors. A member of the *C. sativus* group from high up in the Cretan mountains.) (10) C
- 349.803 : CROCUS PALLASII** (subsp. *pallasii*) * Greece, Samos. Ex an A. Edwards coll. (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
- 349.980 : CROCUS PASCHEI** * Turkey, "eastern Taurus." 700-1400m. Among scrub. Ex the type-collection, HKEP 90-34. (Described in 1993, in Series *Flavi* & seems very close to the splendid *C. antalyensis*, which we have not found to be an easy plant to grow, but differs in several characters, as well as being geographically separated. Waisted, lilac-blue flowers, silvery or buff outside, with white zones above their yellow throats & trifid, orange-red stigmas, in spring. A very few seeds to spare again.) (8) F
- 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
- 351.010 : CROCUS ROBERTIANUS** * Ex a M. Harvey coll. (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 but said to be growable outside in the UK.) (10) D
- 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
- 352.455 : 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
- 352.552 : CROCUS SIEBERI** subsp. **SUBLIMIS** * Greece, Viotia, Oros Parnassos. 1500m. Slope below *Abies* woods. 7.6.96 (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.) (15+) 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
- 353.600 : 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** * Yugoslavia, 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.) (10+) B
- 354.003 : CROCUS VELUCHENSIS** Greece, Pieria, Oros Olimbos. 1500m. Open, S-facing slope. P. & P. Watt coll. (15+) B
- 354.205 : CROCUS VERNUS** (subsp. *vernus*) Slovenia, near Novo Mesto. W. McLewin 97-38. (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 into Italy. White to pale lilac flowers, delicately feathered outside, in spring - quite late with us, like the related *C. malyi*. Not difficult but does not increase enthusiastically or set seed very freely with us.) (8) C

Cyclamen : something for everyone

Few genera inspire such devotion as cyclamen. Their flowers & beautiful foliage can be enjoyed almost throughout the year, though, of course, their peak seasons for flowering are spring & autumn. We have had another mixed year for seed but with some help from other growers, we have a reasonable, if somewhat limited, amount of 1997 seed available. Seed from selected flower & leaf forms will be found at the end of the list in the section dealing with garden hybrids & selections. Only the basic wild species, if possible from material with field data, are here. *C. hederifolium*, *C. coum* & a few others are, of course, reliable garden-plants but the majority can be grown to perfection, in the UK, only under glass, safest kept frost-free. All will take very brief periods of light frost but some measure

to prevent prolonged or severe freezing is only common-sense. Likewise, regarding extremely high summer temperatures : 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 of the summer-dormant species in this list, these germinate at low-temperatures & should be sown in late summer or 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, which love them as much as we do. The best reference is C. Grey-Wilson's monograph on the genus (1988).

- 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 *** Turkey, Konya, NW of Bozkir. 1100m. Base of N-facing, limestone cliffs. (Dainty, autumn-flowering species with pale pink flowers & small, rounded leaves. Hardy in a well-drained, sunny site in the UK.) (15+) **B**
- 360.600 : CYCLAMEN COUM - DARK NOSE *** No data. A very interesting race which was received among a batch of *C. coum* variants, wild collected in various localities in Transcaucasia & sent to Mike Salmon by the Russian botanist Zinaida Artiushenko, in the 1960's. As Mike was not especially interested in them, they were planted in his garden at 'Monocot'. When he was moving in the early 1980's, we extracted a few plants of this one. As it is derived from wild material & originally came labelled as one of the so-called 'Russian splits' (like *C. circassicum* or *C. adzharicum* or *C. abchasicum*), which western botanists currently dismiss as synonyms (without ever having visited living plants in the type-localities of any of them), we are reluctant to subsume it into the cultivated selections. In time we feel it may acquire its rightful name & prove to be an acceptable geographical race. It does not actually 'key-out' as anything in current western literature, though you could nudge it into *C. parviflorum*, but, of course, it does not match the description with its larger flowers & boldly patterned foliage. Mixed seed from both pink & white forms. Especially striking nearer eye-level under glass, where you can see the big purple-black blotch going back into the sinus.) (10) **E**
- 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 *** 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.) (15+) **C**
- 363.099 : CYCLAMEN GRAECUM *** No data. From a very wide range of this magnificent, autumn-flowering species, variable in colour from carmine-pink to shell-pink, in time of flowering (from August to November in the UK) &, of course, in size, shape & markings of the leaves. Well worth growing for the last quality alone. Safest frost-free, with a warm summer-rest.) (20+) **B**
- 363.100 : CYCLAMEN GRAECUM f. ALBUM *** Data as for 363.003. Pure white ex the original E. & R. Frank coll. (8) **D**
- 364.003 : CYCLAMEN HEDERIFOLIUM *** Greece, Evia, W of Karistos. 200m. Among scrub on schist. (A distinct, large-leaved, large-flowered race, resembling *C. africanum*. Long, late flowering-season, well into November under glass with us.) (15+) **B**
- 364.008 : CYCLAMEN HEDERIFOLIUM *** Greece, Lakonia, Langadas pass. 1200m. Ex D.M. Hoskins 95-10. (15+) **B**
- 364.009 : CYCLAMEN HEDERIFOLIUM *** Greece, Lakonia, Taigetos, Profitis Ilias. 1600m. Ex D.M. Hoskins 95-14 (Both these collections are derived from outstanding leaf-forms selected in the wild. Pink flowers in autumn.) (15+) **B**
- 364.050 : CYCLAMEN HEDERIFOLIUM *** Greece, Crete, Topolia. M. Jope 95-038 (In Crete, this widespread species is extremely local and, according to Cyclamen Society members, who saw it in flower here in October, 1996, in an extremely fine form with a fine scent, though we must admit that we have never been able to smell allegedly scented *C. hederifolium*.) (15+) **D**
- 364.099 : CYCLAMEN HEDERIFOLIUM *** No data. From a wide range of cultivated forms of this incomparable, autumn-flowering species, the hardiest & 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**
- 364.515 : CYCLAMEN INTAMINATUM *** No data but selected over decades from the E.K. Balls 628 coll. for its prominently silver-marked foliage. A beautiful leaf-form of this little, hardy species with small, veined white flowers in early autumn. (10) **D**
- 364.520 : CYCLAMEN INTAMINATUM *** No data. Distinct variant with dark, unmarked leaves, like a plain-leaved *C. coum*. Larger, purer white flowers than the above & usually a more enthusiastic grower than other forms of this species. (20+) **B**

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

- 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 a coll. we made in 1966 & maintained by Dave Hoskins - don't say these are not long-lived plants. Elegant palest pink flowers with red noses & beautifully patterned foliage. (15+) C
- 366.510 : CYCLAMEN PERSICUM *** Greece, Rhodes. Ex an E. Sewell coll. (Especially fine leaves on this island.) (15+) 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, pale pinks, in spring, & foliage which rivals *C. graecum*. Best frost-free in UK. (15+) B
- 366.551 : CYCLAMEN PERSICUM - CRIMSON FORM *** No data. From an exceptional crimson-pink form, originally grown by John Blanchard's father under the barely decipherable label 'Karpai'. 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+) D
- 367.005 : CYCLAMEN PSEUDIBERICUM *** Turkey, Kahramanmaras, Armut Dagi above Tekir. 1500m. Among deciduous oaks on N-facing slope. (Our first 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 pink *C. libanoticum* in its magnificent rich crimson-purple flowers. Possible outside & splendid in an unheated greenhouse (15+) C
- 67.015 : CYCLAMEN PSEUDIBERICUM - PALE PINK FORMS *** Turkey, Adana, near Dorytol. 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 the colour but in their elegant, more elongated petals.) (10) D
- 367.500 : CYCLAMEN PURPURASCENS *** Italy, Friuli-Venezia-Giulia, N of Trieste. 100m. Among scrub. (Deep carmine-pink flowers in late summer & autumn. This low-altitude coll. enjoys warmer drier treatment than the Alpine ones.) (10) D
- 367.510 : CYCLAMEN PURPURASCENS *** Austria, near Vienna. (Alan Edward's form "from the Vienna woods") (10) D
- 368.002 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM *** Greece, Lakonia, Parori near Sparti. 250m. In humus over limestone, beneath *Quercus* & *Buxus*. (From a form with flowers in a luminous carmine-pink. Not so dark as in type *C. repandum* but much richer than many pale-pink Peloponnese forms. This subspecies is not actually well-defined. It can vary a lot in colour & in leaf-markings, sometimes just like typical western ones, though this collection is rather neatly white-stippled.) (10) D
- 368.003 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM *** Greece, Lakonia, Oros Taigetos. Ex an E. Needham coll. (From a fine clone with striking foliage, evenly speckled all over with white. Pale-pink, red-nosed flowers in spring.) (15+) D
- 368.020 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM *** No data. From several other excellent clones. . . . (15+) C
- 368.210 : CYCLAMEN REPANDUM subsp. RHODENSE *** No data. A distinct enough island-race, endemic to Rhodes. Leaves irregularly splashed with greyish white and white (or very pale pink) flowers with pink noses. Not a vigorous plant. (10) E
- 384.020 : DAPHNE MEZEREUM *** No data. Fresh seed of this glorious shrub. Purple-pink wreathed branches in spring. (8) A
- 384.050 : DAPHNE MEZEREUM f. ALBA *** No data. White flowers followed by yellow fruits. Freshly collected. (8) B
- 441.900 : ERANTHIS CILICICA** Turkey, Antalya, N of Akseki. 1500m. Limestone, in stony humus under *Abies*. N. Stevens coll. May, 1997. (The large-flowered Turkish race of the winter aconite, included under *E. hyemalis* in 'Flora of Turkey' but this is debatable. Illustrated in this classic site, where it grows with *Cyclamen cilicium* & *Crocus biflorus*, in 'The Bulb Book' p. 29. A very rare chance to acquire some fresh, wild seed, which should germinate well if sown promptly (no point ordering this after September). Glorious yellow flowers above ruffs of bronze-tinted cauline leaves in earliest spring. 10cm. or less.) (15+) C
- 444.060 : EREMURUS HIMALAICUS *** No data. NW Himalayan Foxtail Lily with 2m. spires packed with white flowers. . . . (10) B
- 444.080 : EREMURUS ROBUSTUS *** No data. Equally imposing Central Asian with towering, soft-pink racemes. 2.5m. . . . (10) B
- 444.101 : EREMURUS SPECTABILIS *** Turkey, Kahramanmaras, SSE of Goksun. 1550m. 12.6.94. (Green-white. 1.5m.) . . . (10) C
- 444.150 : EREMURUS STENOPHYLLUS *** No data. Cylindrical racemes of brilliant yellow flowers. About 1m. high. . . . (10+) B
- 472.002 : ERYTHRONIUM DENS-CANIS** Bosnia & Hercegovina, NW of Bosanski Petrovac. W. McLewin 97-43. (Freshly collected in the infamous "Bihac pocket" of N Bosnia ("very creepy now" writes Will). Perhaps the finest in the genus with beautifully brown-mottled, grey-green leaves and rosy purple flowers. Easy outside in the UK but slower to establish than some.) (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, which appear to be frequently, if not always, white but little information exists on it in nature & it is an obscure plant in cultivation.) (20+) D

Fritillaria : an outstanding range of 1997 seeds

Possibly the genus most esteemed by the more specialised of British bulb-enthusiasts at present. Fashions change. Reginald Farrer, writing in 1913, after conceding it is a "lovely race", condemns them as "very miffy or mimpish or both, and the family all round has a bad character...not to mention that an enormous number have more or less stinking bells of dingy chocolate and greenish tones, which often appear transfigured by the enthusiasm of those who desire to get rid of them..." Perhaps they were beyond his capabilities as a grower. Their "miffiness" is one of their charms adding stimulation to the challenge of their successful cultivation. Most, in fact, 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. Of those listed here, *F. messanensis* subsp. *gracilis*, *F. pallidiflora*, *F. pontica*, *F. thessala ionica*, perhaps *F. acmopetala* & certainly the native *F. meleagris* should be growable outside in most UK gardens. Most species grow in comparatively small populations in very limited areas in the wild and enthusiasts should make every effort to maintain fertile stock from seed in cultivation. 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. This season almost all listed are cultivated and, with the help of several other enthusiasts, we have a more comprehensive range than ever before. Particularly notable this year is the extensive range of material in the *F. crassifolia-hermonis* complex, a group which Martyn Rix worked on at the beginning of his involvement with this genus and which now may be worth reviewing again. While specialists await a modern monograph from Martyn, it is possible that popular interest in this genus will be stimulated by the recent publication of "The Gardener's Guide to Growing Fritillaries" by Kevin Pratt & Michael Jefferson-Brown, with contributions from Kath Dryden, Chris Grey-Wilson & John Hill. This is primarily aimed at presenting some more widely cultivated representatives to the general gardener. It will doubtless achieve a broad circulation & may introduce the genus to many further growers. 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. Since these were published, some Greek populations have been described as new species by Georgia Kamari and are listed under her names. "The Bulb Book" by Rix & Phillips provides an extensive photographic record of the genus with brief, accurate notes.

- 490.010 : FRITILLARIA ACMOPETALA** (subsp. *acmopetala*) * No data. Round-shouldered, elegantly waisted bells, usually in yellow-green with brown central shading. About 30cm. high & one of the easiest in a frame or even outside in the UK. . . . (20+) **A**
- 490.011 : FRITILLARIA ACMOPETALA - DARK FORM** * No data. Comes 'true' from seed - a fine form. (15+) **B**
- 490.100 : FRITILLARIA ACMOPETALA subsp. WENDELBOI** * Turkey, Antalya, S of Madenli. 1900m. Pockets of black soil & limestone talus. (The high altitude inland race, recorded in 3 sites above 1600m. in the Cilician Taurus. This is from a collection made with Norman Stevens in 1994, in the area of the type locality, NE of Akseki. It differs substantially from the typical race in its much broader foliage and its large flowers with sharply angular, rather than rounded, 'shoulders'. We have not seen other material cultivated as this and described as 'smaller'. As we have it, this is a big, bold plant with spectacular flowers in chocolate and a luminous, lime yellow-green, most eye-catching and utterly distinct in general appearance from the type-race.) (10+) **E**
- 490.510 : FRITILLARIA ALBURYANA** * No data. A few, hand-pollinated in Sweden from the stock originally grown by the Czech bulb enthusiast, Milan Prasil, who successfully grew this unprotected in the open, until his garden was flooded. (5) **F**
- 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**
- 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 identified as a hybrid between *F. graeca* & *F. rhodocanakis*, this appears to fit in here, though it is closer to *F. rhodocanakis* than the former collection.) (10+) **D**
- 491.102 : FRITILLARIA ARGOLICA** Greece, Argolida, Poros. 200m. Uncultivated olive-groves. M. Harvey coll., May, 1997 (A superb quality, fresh wild coll. from this island off the NE tip of the Argolida peninsula (next to the *F. rhodocanakis* island of Idra) perhaps likely to be more homogeneous than the preceding two mainland ones.) (10+) **E**
- 491.205 : FRITILLARIA ARMENA** * Turkey, Agri, Tahir Gecidi. 2350m. Ex R.& R.Wallis 93A-36. (The small, dark, snow-melt endemic of the E Turkish mountains, seldom-seen in cultivation. Nodding bells, purple-black inside & out.) (10) **D**
- 491.805 : FRITILLARIA AUREA** * Turkey, Malatya, near Dogansehir. 1800m. Ex a N. Stevens coll. & W.M.M. Baron 2108, from the same area. (This exceptional form seems to be a local race, prevalent only in a small area at the SE extremity of the range of this glorious plant. In fact, it was once thought that it might not belong in *F. aurea* at all & it seems consistently distinct in the shape of its bulbs, its early-flowering & in the size of its big, broadly bloated, bright citron-yellow bells, with ghostly browner chequering. These usually open almost at ground-level & the stem gradually elongates to about 20cm. in height.) (10) **E**
- 491.810 : FRITILLARIA AUREA** * No data. From several other forms, mainly from the populations at the W end of the Cilician Taurus. The species extends from the high mountains near Bolkar Dag NE into Sivas & Malatya, a plant of alpine-steppe, usually on limestone, between 1800 and 3000m. Huge yellow bells on stems of less than 15cm., clad in glaucous grey leaves, one of the most delectable species. This is the year for *F. aurea* - the first time we have had much seed of any form.) (15+) **D**

A : \$2.00 ; £1.50 ; DM4,- ; FF13.- **C** : \$4.00 ; £2.50 ; DM6,- ; FF21.- **E** : \$7.00 ; £4.50 ; DM12,- ; FF40.-
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Species from Europe, W Asia & N Africa : Seeds from Jim & Jenny Archibald

- 491.850 : FRITILLARIA AUREA X PINARDII** * Turkey, Malatya to Kayseri. 2000m. Ex M. Rix 1603 (From a series of hybrids found by Martyn Rix in the wild, illustrated with the parents in 'The Bulb Book'. Seed from both of the extremes shown there - vigorous intermediates with rather more conical bells than *F. aurea*, variably chequered & shaded with brown.) (10) **D**
- 492.101 : FRITILLARIA BITHYNICA** * Greece, Samos, Ambelos. 700m. Under *Castanea* in leaf-soil on mica-schist. Ex a D.M. Hoskins coll. (A delightful, mainly W Turkish, species with glaucous, yellow-green bells, yellower inside, followed by winged seed-capsules, which easily distinguish it from similar yellows. The island, Samos & Khios, races are little-known.) (10+) **C**
- 492.200 : FRITILLARIA BUCCHARICA** * No data. Beautiful Central Asian, distributed from NE Afghanistan into the Pamir-Alai at up to 2400m. Up to 10, open, green-tinted, white bells on 20cm. 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. (Grey-green leaves & dark nectaries inside its clear-yellow bells. One of the most charming of this group.) (10+) **C**
- 492.700 : FRITILLARIA CAUCASICA** * Turkey, Kars, W of Sarikamis. 2200m. Open stony areas in coniferous zone. (Extends from this cold NE corner of Turkey across Transcaucasia into NW Iran. Quite large, conical, glaucous purple-brown bells.) (10+) **D**
- 492.800 : FRITILLARIA CHLORANTHA** * No data. (From several colls. made in the Zagros Range of NW Iran, in the 1960's, mostly to the N of Kuh-i-UShtaran, where it grows on open, grassy slopes, with *Tulipa stapfii* & *F. persica*, between 1800m. & 3000m. After 30 years, it remains one of the rarest *Fritillaria* spp. in cultivation. It is not easy, though Martyn Rix kept our 1966, 1609 coll. all those years. Broad, shining-green foliage & green bells with a glaucous bloom on stems of 10cm. or less. (5) **F**
- 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**
- 493.001 : FRITILLARIA CONICA** Greece, Messinia, SE of Pilos. Edge of macchie. M. Harvey coll., May, 1997. (15+) **D**
- 493.305 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Erzurum, Kop Dag. 1700m. Ex R. & R. Wallis 93A-17. (The type race has a wide but very local distribution across Turkey from Denizli in the W to Erzurum in the E. Always in isolated sites & always growing in steep, loose, unstable talus-slides. In general, a dwarf plant with fleshy, twisted, greyish foliage & big, greenish yellow, brown-chequered bells. This is a very fine form but the least easy to grow of the three listed here.) (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**
- 493.307 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Kahramanmaras, Ahir Dag. Ex R. & R. Wallis 93-25. (A southern population from well within the distribution of the allied *F. hermonis* subsp. *amana*, which oddly does not seem to occur on this mountain. A particularly dwarf form with somewhat yellower flowers than the preceding two. All are distinct.) (15+) **D**
- 493.405 : FRITILLARIA CRASSIFOLIA** subsp. **HAKKARENSIS** * Turkey, Hakkari, E of Yuksekova. 2300m. Ex R. & R. Wallis 87-26. (Endemic to snow-patch hollows on the high mountains of Hakkari, this sometimes grows on the same slopes as *F.c.* subsp. *kurdica* but remains distinct in its habitat, as well as in its shiny green foliage & more pointed inner segments.) (10) **E**
- 493.500 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Van, NNW of Baskale. 2800m. Open, stony slopes. (In this site, very variable in the colour & markings of its plump, chequered bells - striped & tinted in red-brown to yellow-green. Seed from red forms, selected as R. & R. Wallis 87-27, & a fine, green-striped form selected by ourselves under 6526 in 1985.) (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 in this heaven for bulb-enthusiasts on the shoulders of Artos Dag.) (10+) **D**
- 493.507 : FRITILLARIA CRASSIFOLIA** subsp. **KURDICA** * Turkey, Hakkari, Esendere. Ex a Z. Zvolanek coll. (15+) **C**
- 494.000 : FRITILLARIA DAVISII** * Greece, Lakonia, NW of Pargos Dirou. Low, limestone hills. (An endemic of the S tip of the Mani peninsul. 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+) **C**
- 494.001 : FRITILLARIA DAVISII** Greece, Lakonia, N of Pargos Dirou. Uncultivated olive-groves. M. Harvey coll. 1997 (15+) **D**
- 494.400 : FRITILLARIA DRENOVSKII** * Greece, Drama, Falakro above Voloas. 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**
- 494.605 : FRITILLARIA EDUARDII** * No data. Distributed at about 2000m. in & around Tadjikistan, this is a distinct dwarfer relative of *F. imperialis*. At about 40cm., even more compact than the more western *F. raddeana*. The pendant bells are broader with widespread segments and are in what Alan Edwards describes as 'barley-sugar' colour - a soft yellow-orange. (8) **E**

- 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
- 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
- 495.860 : FRITILLARIA GIBBOSA** * No data, originally from Norman Stevens stock, which has evolved from several introductions of this temperamental, sought-after species. A steppe-plant, adapted to a climate of extreme temperatures, distributed sporadically across N Iran into Turkmenistan & Afghanistan, often growing in sandy clays. Broad, wavy, grey-green leaves & up to 12, wide, bowl-shaped, dark-centred flowers, often with reflexing segment-tips, in ivory to pale-pink dappled with rose. Slower than some from seed &, like other Central Asians, may be best started into growth much later than more western species.) (8) E
- 496.020 : FRITILLARIA GRAECA** (var. *graeca*) * No data. From several similar colls. on Parnes, etc. Most will have single, broadly campanulate bells, on stems of about 15cm. Purple-brown segments with distinct yellow-green fascia. (15+) B
- 496.501 : FRITILLARIA GUSSICHAIE** * Macedonia, Pelister above Magarevo. 1400m. Among scrub on steep slopes of igneous rock. (Very local in the Bulgarian & Macedonian border ranges. Up to six, yellow-green bells, tinged with brown. Distinct from *F. graeca* & *F. thessala* in its winged capsules. Seldom-seen in cultivation but proving growable outside in the UK.) (10+) D
- 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 three 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.) (10) F
- 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, more northern, Turkish plants.) (10+) D
- 497.020 : FRITILLARIA HERMONIS subsp. AMANA** * No data. From several Turkish colls. of this 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 European, occurring very locally in the Alpes-Maritimes & NW Italy. About 20cm. high, narrow-leaved & with green, purple-chequered bells. (15+) C
- 497.700 : FRITILLARIA KITTANIAE** * Turkey, Antalya. 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. elwesii*, 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
- 497.751 : FRITILLARIA KOTSCHYANA** * Iran. Ex P. Wendelbo 75-84 (A stoloniferous form of this *F. crassifolia* relative, endemic to the N slopes of the Elburz Mts., from the tree-line up to 2700m. Pendant bells variably chequered with pale green & brown sometimes open almost at ground-level though it can be 20cm. high. Very seldom cultivated but not unduly difficult.) (10) E
- 498.205 : FRITILLARIA LATIFOLIA** * Turkey, Gumushane, Kose Gecidi. 1960m. Ex R. & R. Wallis 93A-48. (A sumptuous plant, especially in the dwarfed, Turkish forms, which have been separated as *F. nobilis*, when the comparatively huge, broad bells, heavily tessellated with rich red-purple, sit, almost stemless, on the glossy, green basal leaves. Don't overdry in summer.) (10+) D
- 498.503 : FRITILLARIA LUSITANICA** (*F. hispanica*) * Spain, Jaen, Sierra de Cazorla. Ex an A. Edwards coll. (The variable fritillaries of the Iberian peninsula grow from near sea-level in Portugal to alpine elevations in the Spanish Sierra Nevada. All are currently 'lumped' under this name & do not seem to be satisfactorily divisible into acceptable, distinct taxa.) (15+) C
- 498.504 : FRITILLARIA LUSITANICA** * Spain, Malaga, near Ronda. Ex an R. & R. Wallis coll. (A good 'standard form' with the typical narrow, alternate leaves. Yellow-green bells, yellow inside, tessellated with brown outside.) (15+) C
- 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
- 499.700 : FRITILLARIA MESSANENSIS subsp. GRACILIS** * Bosnia & Hercegovina, W of Trebinje. 500m. Among *Quercus* scrub over limestone. (Untessellated, 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
- 499.906 : FRITILLARIA MICHAILOVSKYI** * Turkey, Kars, Sarikamis. 2300m. Ex R. & R. Wallis 93A-30. (From a fine, classic form of this arresting & growable species. Large, polished mahogany bells, broadly rimmed with yellow.) (15+) B

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

- 500.001 : FRITILLARIA MINIMA** * Turkey, Van, Kavussahap Dag. 2700m. Steep limestone screes on open slopes. (Very seldom seen in cultivation - not impossible to grow but, like some other high-alpine, snow-melt species, extremely difficult to flower well. Dainty, yellow bells, the twin of the N American *F. pudica*. Native only to Artos Dag & the adjacent mountains.) (10+) **E**
- 500.300 : FRITILLARIA MONTANA** * Macedonia, Galicica Planina above Trpjeica. 1600m. Exposed, dry, limestone slopes. (A slender, dwarf form of this variable, widespread group. Globular, brownish bells & bulbs with a stoloniferous habit.) (15+) **C**
- 500.510 : FRITILLARIA OBLIQUA** * No data. Endemic to a small part of Attica, on the Greek mainland. Close to *F. tuntasia* of the Cyclades. Similar black bells but stockier with fewer flowers & leaves, which lie mainly at the base of the 15cm. stem. (10+) **D**
- 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 to hang out up to 5 dark bells, densely chequered brown-purple outside & reddish inside. (10+) **E**
- 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, hardest & most satisfactory outside in the UK.) (15+) **C**
- 501.410 : FRITILLARIA PALLIDIFLORA** * No data. From UK & NZ long-cultivated stock of this reliable species. (15+) **B**
- 501.505 : FRITILLARIA PERSICA** Turkey, Icel, Gulnar. 700m. Field edges. N. Stevens coll., June, 1997. (Well-known in cultivation & quite frequent in the Iranian Zagros range but a most uncommon plant in Turkey. Recorded up to 1m. high, though usually less than half that height, with racemes of up to 20, grey-green to purplish bells. Possible outside in a sunny site in the UK.) (10+) **C**
- 501.801 : FRITILLARIA PINARDII** * Turkey, Denizli, Honaz Dag. 1650m. Stony clay over limestone. (A very neat, dwarf plant & an excellent grower with us. Its clear yellow bells mature to rust-red. Suspiciously like *F. carica* at first glance but the altitude & habitat seem wrong for this. Norman Stevens feels it best we keep it under *F. pinardii* for the present.) (10+) **C**
- 501.810 : FRITILLARIA PINARDII** * Turkey, Kayseri, S of Pinarbasi. 1400m. Ex R. & R. Wallis 93-30. (A black form of this immensely variable species, widespread throughout Turkey & something of a rag-bag entity.) (10+) **C**
- 501.811 : FRITILLARIA PINARDII** * Turkey, Adiyaman, Nemrut Dag. Ex E. Frank 87-10. (A most distinct brick-orange form, which might almost be mistaken for *F. minuta*. If you cannot place something elsewhere, put it under *F. pinardii*.) (10) **D**
- 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. (15+) **A**
- 502.400 : FRITILLARIA RADDEANA** * Iran, Gorgan, Gulestan. c. 2000m. Ex a P. Furse coll. (From one of the seed & bulb colls., (PF 5162, etc.) made by Paul Furse in 1964, in what was then the royal hunting reserve. Like a dwarfier, primrose yellow version of *F. imperialis*. Growable outside in the UK but it flowers early so protection safeguards both flowers & seed-set.) (10+) **C**
- 502.401 : FRITILLARIA RADDEANA** Turkmenistan, Kopet Dag, Arvaz valley. (The UK stock in cultivation seems almost wholly derived from the N Iran Furse colls. This is wild collected seed from the other side of the border. A rare opportunity.) (10+) **D**
- 502.450 : FRITILLARIA REUTERI** * Iran, NW of Esfahan. From F. Baxter, P. Wendelbo & other colls. (Extremely local but locally numerous in a few, seasonally moist, stony meadows at 2500-3000m. Wide mahogany bells, broadly bordered with yellow, not unlike *F. michailovskyi* but taller & more delicate, both in habit & constitution. Not easy & scarce in cultivation, though it has been grown outside in N Europe and we can hope this currently inaccessible plant may become more widespread in cultivation.) (8) **F**
- 502.600 : FRITILLARIA RHODOCANAKIS** Greece, Argolida, above Idra town. 150m. M. Harvey coll., May, 1997. (10+) **E**
- 502.601 : FRITILLARIA RHODOCANAKIS** * Greece, Argolida, Idra. Ex an R. & R. Wallis coll. (Endemic to the island of Hydra, off the SE Peloponnese. Neat, about 10cm. tall, & usually with yellow-tipped, chocolate-brown, widely flaring bells. Wholly yellow-green forms seem not to be uncommon & though they do not appear to come 'true' in first generation seedlings, we list seed from one for anyone interested & some may, of course, crop up in the Marcus Harvey coll.) (10+) **D**
- 502.605 : FRITILLARIA RHODOCANAKIS - YELLOW-GREEN FORM** * Data as above. See preceding comments. (10+) **D**
- 502.620 : FRITILLARIA RIXII** * Greece, Evia. (A yellow-flowered species, described by Zaharof in 1986, from 700-800m. on Xiron & Kandhili on Euboea. Georgia Kamari (1991) considers it a "poorly defined ecotype" of the higher altitude *F. euboica*. As the latter is still little-known, this will make it no less desirable to the specialist - call it *F. euboica* if you want! Norman Stevens commends this stock as a better grower than his *F. euboica*, adding somewhat cynically "hybrid vigour".) (10) **E**
- 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.), but distinguished by the curled, cirrhose tips of the upper leaves. The name is sometimes misapplied in cultivation but we grew the genuine plant years ago from material given to us by Paul Furse but originating from Moscow Botanic Garden. Very elegant with narrow leaves & dark maroon-red, chequered bells. Possible outside.) (15+) **D**

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B : \$3.00 ; £2.00 ; DM5,- ; FF17.- **D** : \$5.00 ; £3.50 ; DM9,- ; FF30.- **F** : \$9.00 ; £6.00 ; DM15,- ; FF50.-

- 502.750 : FRITILLARIA SEWERZOWII** Uzbekistan, Chingan valley. (A wild coll. of this exciting & most distinct Central Asian species, with affinities to *F. imperialis* & to *Lilium*. Split by some into the monotypic genus *Korolkowia*. We have always found it a difficult plant but others grow it successfully. Like no other in its pendant, narrow bells with widespreading tips to the segments of luminous 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. c. 400m. Ex an R. & R. Wallis coll. (Described in 1809 & 'lost' for 185 years after Sibthorp's type-coll. (meanwhile its name was widely misapplied). Still only known from pine woodland in two localities in the extreme SW corner of Turkey. A distinct plant, differing from the others with bright yellow bells in its two, or occasionally three, comparatively broad leaves, clasping the 20-30cm. stem. Not the easiest of the yellows.) (10+) **E**
- 502.900 : FRITILLARIA SPETSOTICA** Greece, Spetses, ridge below Profitis Ilias. M. Harvey coll. June, 1997 (A recently described race from the island of Spetses, off the southern tip of the Argolida peninsula in the E Peloponnese. As might be expected, close to *F. argolica* & *F. rhodokanakis* but apparently differing in several leaf & flower characters. Said to have brown-purple flowers with yellow fascia. It is difficult to keep track of Georgia Kamari's proliferating, mainly island endemic, species.) (8) **E**
- 503.500 : FRITILLARIA STRIBRNYI** * Turkey, Canakkale, Gelibolu (Gallipoli). Ex Horton & Stevens 2067. (Extremely local in SE Bulgaria & adjacent European Turkey, just crossing the Bosphorus here. An elegant plant, about 20cm. high with linear, greyish foliage & narrow, glaucous, unteselated, 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, greenish bells, variably chequered with brown-purple hang below the topmost whorl of 3 broad, grey-green leaves.) (15+) **B**
- 503.700 : FRITILLARIA THESSALA** subsp. **IONICA** (*F. ionica*) * Greece, Kerkira, Pantokrator. Ex A. Edwards & E Sewell colls. (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**
- 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 *F. obliqua* with greyish leaves more evenly distributed up the 20-30cm. stems & up to 5 flowers. The conical bells are virtually black with a glaucous bloom outside. (10+) **D**
- 504.704 : FRITILLARIA WHITTALLII** * Turkey, Antalya, N of Akseki, above Irmasan Gecidi. 1800m. Ex R. & R. Wallis 90-52. (Exceptionally local, this appears limited to isolated patches of humus-rich scree at about the tree-line of cedar-forest in Antalya & Isparta provinces. Its elegant habit with linear leaves & large, pale-green, purple-tesselated bells, recall *F. meleagris*.) (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**
- 508.500 : GALANTHUS FOSTERI** * Turkey, Hatay, E of Belen. 1250m. Shaded crevices on limestone outcrops. (A distinct snowdrop with shiny, green leaves. Endemic to this corner of Turkey, S through Syria into Lebanon. Does well pot-grown.) (10+) **D**
- 508.902 : GALANTHUS NIVALIS** Croatia, near Vocin. W. McLewin 97-33. (The classic, winter-flowering snowdrop.) (20+) **B**
- 508.903 : GALANTHUS NIVALIS** Slovenia, near Bregana. W. McLewin 97-35. (We guess these two colls. from either side of the Croatian-Slovenian border are 'standard' *G. nivalis* but they approach areas where plants called *G. ehvesii* var. *maximus* grow. They may provide some variants and will certainly give growers outside Europe the chance to acquire this species at last.) (20+) **B**
- 509.300 : GALANTHUS REGINAE-OLGAE** * Greece, Messinia, Oros Taigetos, Langadas pass. 1200m. Humus under *Platanus*. (Hand-pollinated seed from the type-race of this 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 with white. About 50cm.) (15+) **B**
- 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.) (15+) **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.) (15+) **B**
- 532.605 : GLADIOLUS KOTSCHYANUS** * Turkey, Van, W of Yukari Narlica. 2200m. Stony alluvium near stream. (Pale mauve flowers marked with white. These three montane forms are more slender & dainty than ones from the lower meadows) (15+) **B**
- 551.000 : HANNONIA HESPERIDIUM** Morocco, S of Chichaoua. Dry river-banks. J.W. Blanchard 93-04 (A little seed-bank material left of this small, autumn-flowering *Narcissus*-relative, endemic to NW Morocco, often in coastal limestone fissures.) (15+) **D**

Helleborus : fresh seed from the fragments of former Yugoslavia

We list a very full representative range of this genus, all 1997 collected & almost all 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 & Ukraine, a complicated operation. At the time of issue of this list, we still await the 1997 seed from Georgia but are assured that it is on its way. If you are interested in this genus, order & sow the seed without delay. Place it at normal outdoor temperatures. Though there is still plenty of time, 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 day before sowing may help germination the first winter. Like most of the species in this list, hellebores germinate at low temperature between autumn & spring. 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**
- 560.002 : HELLEBORUS ATRORUBENS** Slovenia, near Novo Mesto. W. McLewin 97-36. (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*.) (10+) **E**
- 560.500 : HELLEBORUS CROATICUS** Croatia, near Osijek. W. McLewin 97-31. (Though regarded by Brian Mathew as synonymous with *H. torquatus*, Will thinks this recently described taxon is distinct & sustainable. It might be best placed at infraspecific level under *H. atrorubens*. Extremely local in the wild, this is a type-locality collection from E Croatia.) (10+) **E**
- 560.801 : HELLEBORUS DUMETORUM** Slovenia, near Maribor. W. McLewin coll. (A distinct, dainty species of mature, deciduous woodland, growing here near the Austrian border. Deciduous leaves, usually finely toothed, appear with the small, somewhat conical green flowers, pendant on slender pedicels. Elegant & reputedly a good garden-plant in the UK.) (10+) **D**
- 560.802 : HELLEBORUS DUMETORUM** Hungary, Vertes Mts. W of Budapest. W. McLewin 97-24. (May be the type-locality for this graceful, little plant, distributed from SE Austria & Slovenia across Hungary to Romania.) (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.) (10+) **B**
- 561.022 : HELLEBORUS FOETIDUS - FROM 'RUTH'** * Outstanding black-green foliage, pale grey-green underneath. As the flowers set seed & mature, the sepals & upper bracts become suffused with pink. Distinct & striking. (10+) **C**
- 561.023 : HELLEBORUS FOETIDUS - FROM 'SIENA'** * Italian race with bluish-green leaves. (10+) **B**
- 561.024 : HELLEBORUS FOETIDUS - FROM 'SOPRON'** * Hungarian form with lead-green leaves. Feathery bracts. . . . (10+) **B**
- 561.402 : HELLEBORUS LIVIDUS** * Spain, Mallorca. (From parents raised from wild seed but open-pollinated in the UK, so 'contamination' with *H. argutifolius* cannot be entirely ruled out. About 30cm. high with untoothed, silver-veined, purple-backed leaves & cream-green flowers flushed pink. Best grown shaded & frost-free but possible in a sheltered site in the UK.) . . . (15+) **C**
- 561.502 : HELLEBORUS MULTIFIDUS** (subsp. *multifidus*) Croatia, Velebit Planina, near Krasno. W. McLewin 97-50. (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**
- 561.506 : HELLEBORUS MULTIFIDUS** (subsp. *multifidus*) Croatia, Cres. W. McLewin 97-52 (A rare coll. from an isolated population on the elongated island of Cres, E of Krk & S of Rijeka. In theory, these should be *H. m.* subsp. *multifidus*, but they look more like intermediates with *H. m.* subsp. *istriacus*.) (10+) **D**

- 561.580 : HELLEBORUS MULTIFIDUS subsp. BOCCONEI** Italy, Toscana, W of Firenze, near the border with Emilia-Romagna. W. McLewin 97-14 (This & the next have certainly close affinities with the Yugoslavian *H. multifidus* complex & we are more than happy to list them as 'authentic' *H.m. bocconeii*, a very little-known taxon in cultivation, sought by the specialist & never previously listed by us. The main diagnostic difference, a dubious one, is theoretically in the foliage but these are quite distinct in flower, generally with larger, more rounded flowers in greenish yellow, on shorter pedicels than Yugoslavian plants.) (10) **E**
- 561.581 : HELLEBORUS MULTIFIDUS subsp. BOCCONEI** Italy, Emilia-Romagna, S of Bologna, near Imola. W. McLewin 97-18. (Seed of both these central Italian populations is the result of a long, specific journey & we have only small quantities.) (10) **E**
- 561.707 : HELLEBORUS MULTIFIDUS subsp. ISTRICUS** Slovenia, Slavnik Vrh. W. McLewin 97-53 (The populations of this subspecies with less-divided foliage, tend to intergrade with *H. odoratus* nearer to the Italian border. Nevertheless, it is acceptable as quite a distinct entity, though, as usual with hellebores, the distinction defies consistent & accurate description.) (10+) **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 discovered by Will where 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 97-41. (From another population in the Julian Alps, here on the N slopes of the Triglav. Similar qualities - a good percentage are pink-flushed & mature to red. Lovely things.) (15+) **C**
- 562.006 : HELLEBORUS ODORUS** Hungary, Mecsek Mts., near Pec. W. McLewin 97-28. (Hungarian populations of all the species tend to be much more isolated and more homogeneous than those to the S in former Yugoslavia, where most intergrade confusingly. If you want really good green flowers, go no further than this) (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. (15+) **E**
- 562.510 : HELLEBORUS ORIENTALIS subsp. ABCHASICUS *** Cultivated seed from Georgia, gathered from authentic material seen in flower by Will & originally collected in Abkhazia, currently very much a 'no-go area', which is unlikely to become accessible in the foreseeable future. Until we can regard it otherwise, this is separated as the purple-flowered race of *H. orientalis*. (10+) **D**
- 562.600 : HELLEBORUS PURPURASCENS** Hungary, Bukk Mts. W. McLewin 97-26. (Will tells us there are exceptional dull-purple clones in this population 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**
- 562.620 : HELLEBORUS PURPURASCENS** Ukraine, near Rakhov. (A 1997 coll., just received from the foothills of the central Carpathians, down in the corner of the SW Ukraine where it borders on Romania & Moldova. This seems about as far E as this continental-climate species goes. These peripheral populations are often more homogenous and we entertain high hopes that this unexpected coll. will produce some really distinct & interesting plants) (8) **E**
- 562.804 : HELLEBORUS TORQUATUS** Bosnia & Hercegovina, N of Bosanski Petrovac. 500m. Among scrub & on open, grassy slopes. W. McLewin 97-44. (A superlative colony here in the infamous 'Bihac Pocket' at the N tip of Bosnia - different to 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**
- 563.000 : HELLEBORUS VESICARIUS *** Turkey, Adana, Nur Da. above Hasanbeyli. 1150m. Among deciduous *Quercus* on shaley slope. (Norman Stevens tells us there was no seed set on the wild Turkish colonies in 1997 but it is quite an event for us to have some cultivated seed from this extraordinary relic, like no other in its inflated seed-capsules, up to 15cm. long. The set was partly due to the 1997 British weather conditions & partly to the skill of Dinah Batterham, who has established this from our 1985 coll. in the open garden in Dorset. Summer-dormant & usually best suited to the bulb-frame in the UK. Cultivated seed is still very limited so we are including 5 of these with 5 from our refrigerated, wild-collected stock. The 1994 seed-bank material will be no better or worse than fresh seed - it always germinates irregularly & produces cucumber-like seedlings, which usually go dormant without producing true leaves. These first-year, dormant roots can be lost through overdrying & this is the most critical period.) (10) **E**
- 567.019 : HERMODACTYLUS TUBEROSUS** Greece, Kithira, above Agia Pelagia. 100m. Olive-groves. M. Jope 97-16, 25.4.97. (The irresistible, green & velvety-black iris of the Mediterranean. Tuberos-rooted & summer-dormant, this is easy enough to grow outside in the UK, where it increases enthusiastically, but it needs a very hot, dry spot to flower well.) (15+) **B**
- 570.950 : HYACINTHELLA ACUTILOBA *** Turkey, Kayseri, Ziyaret Tepe. 2100m. Thin, limestone gravel on exposed ridges. (Wiry, 10cm. stems with up to little pale to mid-blue bells rise from 2-3 distinctively broad leaves. Central Anatolian endemic in this dellightful & 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. (Successions of little, clear-blue bells on 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**
- 571.200 : HYACINTHELLA LAZULINA *** Turkey, Icel, NE of Gulnar. 800m. Among stones on limestone slopes. (Recent 'split' from *H. heldreichii*, mainly from the area S of Karaman. Glaucous leaves & deepest blue, violet-shot flowers.) (15+) **C**

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

- 572.201 : HYACINTHOIDES NON-SCRIPTA** UK, Dyfed, below Ffostrasol. 150m. Mixed, deciduous woodland. 12.7.96 (From our population of bluebells, most spectacular of native bulbs, which 'townie' conservationists imagine is 'threatened'.) (20+) **A**
- 572.300 : HYACINTHOIDES REVERCHONII** * Spain, Jaen, Sierra de Cazorla, above source of the Guadalquivir. 1400m. Red clay pockets on limestone cliffs. (Truly rare - an obscure, narrow-endemic but easy to grow here under glass. Alan Edwards in Surrey has had hybrids outside with *H. non-scripta*. Glossy leaves & distinct, wide-open, rich-blue flowers on 15cm. stems.) (15+) **C**
- 572.340 : HYACINTHOIDES VINCENTINA - WHITE FORM** * No data but 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, not blue, pollen.) (10+) **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.) (15+) **C**

Iris : a few junos to challenge the specialist

The junos (Subgenus *Scorpiris*) include some of the most difficult of bulbs to challenge & frustrate the specialist. There are also comparatively easily grown ones which will be no trouble in a bulb-frame or in pots in the alpine-house. So, do read the comments about these & don't waste your money (& also the efforts others have made to produce this seed) by trying to grow the difficult ones before you have grown the easier

species. Several juno listings are from Alan McMurtrie (Toronto, Canada), who is mainly involved in hybridising within this group but has hand-pollinated spare flowers of some of the species to make 'pure' species material available. We have included a couple of species other than junos but most *Iris* belonging to other sections will be in our next list this year. The best reference for all the species is 'The Iris' by Brian Mathew.

- 584.300 : IRIS AUCHERI** (*I. sindjarensis*) (Subgen. *Scorpiris*) * Turkey, Diyarbakir, NW of Diyarbakir. 800m. Ex A.N. McMurtrie 2282 (From the famous, variable, Leylek Station population. Most seedlings are likely to be some shade of blue, though this colony can vary from pure whites to deep violet-blues. Usually one of the easier ones to grow in the UK. 15-30cm. high.) (8) **C**
- 584.306 : IRIS AUCHERI** * Turkey, Van, Bahcesaray. Ex an A. McMurtrie coll. (Hand-pollinated Canadian seed from a good, mid-blue form, sometimes tinged with mauve. The species ranges from Syria & Jordan through Turkey & N Iraq to NW Iran.) (8) **D**
- 585.520 : IRIS CAUCASICA** (Subgen. *Scorpiris*) * No data. Ex A. McMurtrie. (Easier than some but still a temperamental plant for the specialist. Translucent, pale chartreuse-yellow flowers between grey-green leaves on 15cm. stems.) (8) **D**
- 585.700 : IRIS CYCLOGLOSSA** (Subgen. *Scorpiris*) * Afghanistan, SW of Herat. 1450-1700m. Seasonally moist, grassy places near streams. Ex Hedge, Wendelbo & Ekberg 7727. (Unlike any other juno, or indeed any other *Iris*, & known only from the type-locality. Slender, branching stems, about 30cm high, with up to 3, large, flat, violet-blue flowers. Shaded white & yellow-blotched on the falls. Not too difficult in the bulb-frame or alpine-house in the UK but still needs some skill & care to maintain.) (5) **E**
- 589.300 : IRIS HYMENOPATHA** (Subgen. *Scorpiris*) Iran, S of Teh. (Collected out of flower & most likely to be this but may be the equally obscure *I. leptophylla*. Material we had of these Iranian desert species in the 1960's was extremely difficult.) (5) **F**
- 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 3000m. in the Tien Shan, this has always been a challenge to grow & maintain. Hand-pollinated Canadian seed from Alan McMurtrie.) (8) **F**
- 590.640 : IRIS LINIFOLIA** (Subgen. *Scorpiris*) * No data but the true species, native to Pamir-Alau & Tien Shan at around 2500m. Dwarf, less than 10cm. high, with curved, narrow leaves & slender flowers in yellow & white. Easier than some junos. (5) **E**
- 590.900 : IRIS MAGNIFICA** (Subgen. *Scorpiris*) Uzbekistan, Agalik, Seravschan. (A wild coll. from Janis Ruksans 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. Magnificent indeed & 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 - White form.** Hand-pollinated by A. McMurtrie from a selected, absolutely pure white. (8) **D**
- 590.950 : IRIS MARACANDICA** (Subgen. *Scorpiris*) * No data but the true species from the Pamir-Alai. Dwarf at less than 15cm. & yellow-flowered. Until recently little-known in cultivation but, now it is established, proving not too difficult. (5) **E**
- 591.250 : IRIS NICOLAI** (Subgen. *Scorpiris*) * Tadjikistan, Varzob Gorge (A striking, dwarf Juno from NE Afghanistan & the nearby Pamir-Alai at up to 2000m. Can be considered a differently coloured race of *I. rosenbachiana* with purple-stained, lilac-white flowers. Velvety violet lines & tips to the falls surround bright orange crests. Difficult & intolerant of excess moisture.) (5) **F**

- 591.335 : IRIS ORCHIOIDES** (Subgen. *Scorpiris*) * No data but the genuine species (not the yellow form of *I. bucharica* distributed as this). Pale yellow flowers, tinted with purple & blotched with deep yellow on the falls, on violet tubes. 20-30cm.) (5) E
- 592.505 : IRIS PERSICA** (Subgen. *Scorpiris*) * Turkey, Van. Ex a J.G. Elliott coll. (From one of the most eastern colonies of this exquisite but difficult Juno, which does not actually appear to extend to Iran. Often a plant of sparse oak-scrub rather than steppe. These forms are in shades of jade-green, emerald, smoky green and yellow-green, all with pronounced markings.) (5) E
- 598.850 : IRIS STENOPHYLLA** (Subgen. *Scorpiris*) * Not enough seed from any one coll. So, amalgamated seed (mainly from KPPZ colls. in Konya) of this beautiful, 10cm. high, yellow-crested, rich violet-blue to purple Juno from the interior, steppe areas of central S Turkey. Needs care but not impossible - generally considered a little easier than the related *I. persica*. (5) E
- 600.415 : IRIS UNGUICULARIS subsp. CARICA** (var. *angustifolia*) Greece, Messinia, S of Kardamili. 30m. Limestone slopes. M. Jope 97-17 (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. The S Peloponnese forms incline to the dwarfer Cretan race with deep violet flowers.) (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 from material grown in the UK in 1901. Very rarely seen today - the plant grown as "*I. wilmottiana alba*" appears to be a form of *I. bucharica*. The true plant is 15-20cm. high, with glossy leaves & white-crested, soft-lavender flowers, blotched with white & deeper purple on the falls. (5) 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
- 630.410 : LEUCOJUM NICAENSE** * No data. Only known from the corner of SE France near the Italian border & all but extinct in the wild. Spring-flowering with wide, white bells on stems of 15cm. at most. Not difficult in the alpine-house. (15+) B
- 630.450 : LEUCOJUM ROSEUM** * France, Corsica, Pointe de Revellata NW of Calvi. Pockets on granite. (Delicate, tiny, fairy-like autumn-flowering bulb. Shell-pink bells dance on thready stems. Best under glass in 'cyclamen conditions' in the UK.) (15+) C
- 630.480 : LEUCOJUM TINGITANUM** * Morocco, Rif, above Chaouene. Ex the J.W. Blanchard & T. Norman coll. (This fine, spring-flowering plant was considered a doubtful species by many, until recently rediscovered & introduced. With white bells on 20cm. stems, this may be closest to *L. nicaense* & has proved quite easily grown in similar conditions in the alpine-house.) (10+) D
- 630.710 : LEUCOJUM VERNUM** * No data. The large spring snowflake, a lover of moist sites, with green-tipped, white bells, in a vigorous form grown by Alan Edwards but originating, like many good garden-plants, from Sir Cedric Morris. (10+) B
- 632.401 : LILIUM BULBIFERUM** (var. *bulbiferum*) * Italy, Friuli-Venezia-Giulia, below Passo di Predil. 1100m. Openings in *Picea* & *Fagus* woodland on limestone. (The eastern type-race of this spectacular lily. Upward-facing flowers in a deeper orange-red than *L.b.* var. *croceum* of Alpine meadows. No trouble in the open-garden here. Stem-bulbils sent till winter. 60cm. high.) (10+) B
- 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 by hand-pollination from our 1983 wild seed coll. It survives outside in our wet climate but we must grow it under glass for seed. It should germinate in November, if sown early enough, in the UK. Other lily seed listed here is what we have left from 1996. It may give you a chance to sow before the winter, advantageous with the following which have delayed, hypogean germination.) (15+) C
- 633.950 : LILIUM LEDEBOURII** * Iran, Gilan, Talish. 1700-1900m. Openings in degraded *Fagus* forest. Ex an A. Ala coll. (Only known from one locality in Iran & one or two in Azerbaijan. A superlative plant, proving accommodating in several British gardens. Up to 15, white flowers, banded with yellow-green & lightly speckled with purple, with deep orange anthers.) (15+) E
- 634.040 : LILIUM MARTAGON** * No data. From a wide range of forms of this widespread Euro-Siberian turkscap lily. Stems of about 2m., whorled with dark leaves carry speckled, pendant flowers in pale pink to maroon. Easy in UK in light shade. (20+) A
- 634.050 : LILIUM MARTAGON f. ALBUM** * No data. From some fine green-tinged whites. Usually comes 'true'. (20+) B
- 635.220 : LILIUM SZOVITSIANUM** * No data. Doubtfully consistently separable from *L. monadelphum* & others in this intergrading group of beautiful, fragrant, pale yellow Transcaucasian lilies, which are mainly distinguished by the dimensions & proportions of their flowers. All are beautiful & worthwhile. Usually proves one of the best garden-plants in the genus. (15+) B
- 687.950 : MUSCARI ANATOLICUM** * Turkey, Konya, Sultan Dag. 1760m. Exposed limestone ridgetop. (Appears to be thistiny, recently described species, rather like *M. discolor* in its open-mouthed, white-tipped flowers but easier to flower here.) (15+) C
- 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

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

- 688.602 : **MUSCARI CAUCASICUM** * Turkey, S of Karaman . 1100m. Open steppe. (Taller form, 50-60cm high.) (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 but otherwise similar. We are glad to say we dissuaded Kit Tan from describing it as new.) . . (15+) A
- 689.450 : **MUSCARI GRANDIFOLIUM** * Morocco, Middle Atlas Mts., above Ifrane. 1700m. Red clay on limestone. (Not unlike a large version of the next, but best under glass. 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 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+) B
- 690.010 : **MUSCARI MACROCARPUM** * No data. A gloriously scented species, near *M. muscarimi*, very local in SW Turkey & some E Aegean islands. Greyish, channelled leaves & yellow flowers opening from dull-purple buds on 15cm. stems.) (8) C
- 690.040 : **MUSCARI MCBEATHIANUM** * Turkey, Adana, ENE of Tufanbeyli. 1200m. Open areas among *Pinus* in moist, fine sand. (Closest to *M. coeleste* & *M. pallens*, but distinct in its pure ice-blue bells from sky-blue to violet tinted buds & in its thready leaves, up to 9 in number. A tiny, charming, delicate and none-too-easy species we discovered in 1985 and which was named by Kit Tan in 1988 for our old friend Ron McBeath, at that time responsible for growing *Muscari* at the RBG Edinburgh. Stupidly, we gave almost all of the few bulbs collected to Edinburgh and Kew (neither establishment any longer has living material, according to Margaret Johnson of the Jodrell Laboratory) and it has taken us the past 12 years to build up a sufficiently large stock to produce enough seed to list. Two generations of hand-pollinated seed (a very fiddly job) have now been raised and we have a breeding-stock of over 100 clones. It may be the only substantial stock as Norman Stevens and Jim could not even relocate the pine-wood, its only known habitat, in 1994 - so much for specific localities! It is now time for these to disseminate and multiply!) (10+) E
- 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 easy & needs some care.) . . (10+) D
- 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 over 200 years.) (8) C
- 690.700 : **MUSCARI PSEUDOMUSCARI** * Iran, Mazendaran, S of Chalus. 1500m. Ledges on limestone cliffs. (Lovely endemic of the Chalus gorge, described as *M. chalusicum* in the 1960's. Heads of china-blue bells - open-mouthed, not pinched in.) . . (15+) B
- 691.200 : **MUSCARI TENUIFLORUM** * Turkey, Kayseri, S of Pinarbasi. 1200m. Limestone fissures. (A tall *Leopoldia*, about 50cm. high, distinct from *M. caucasicum* & *M. comosum* in the black teeth to the fertile perianths. Violet sterile flowers.) (15+) A
- 691.250 : **MUSCARI aff. TENUIFLORUM** * Turkey, Hakkari. Ex a N. Stevens coll. (A distinct taxon, which seems confined to either side of the ranges along the border of Hakkari & Iran. 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 as *M. longipes*, as the lower pedicels elongate in seed & it is then intermediate between these two.) (15+) C

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

Unlike most of the main genera of 'bulbs' in this section (*Colchicum*, *Crocus*, *Fritillaria* and so on), which have the centre of their diversity & distribution in Turkey, *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. A great many of the original wild collections from which the following cultivated seed has been grown, were made by John Blanchard, whose lifetime's work with this genus is unrivalled. We follow the nomenclature used in his monograph, 'Narcissus - A Guide to Wild Daffodils', the best reference work on the genus. It 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 (which required very long labels). Most descriptions are wholly inadequate to define the taxon concerned and distinguish it from others, in any case. Keys just do not work when applied to wild populations. Gardeners, however, will find the sum of characteristics in most populations distinct enough. 'Splits' are shorter to write out but it is very much a question of 'take your pick' concerning the name you stick on them.

- 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**
- 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 & rare in cultivation, where it is by no means easy to grow. Sweetly scented, creamy white jonquils carried singly on 15cm. stems, most resembling a white version of *N. cuatrecasii*.) (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.) (8) **D**
- 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+) **C**
- 696.200 : NARCISSUS 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. (A dwarf, snow-melt plant different to the following Spanish one sometimes called '*nivalis*'. Broad, prostrate, glossy foliage & brilliant yellow, upward-facing flowers with much exerted anthers.) (15+) **B**
- 696.250 : NARCISSUS BULBOCODIUM var. NIVALIS** (possibly misapplied by various authors) * 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 preceding not only in flower but in its thready upright foliage. Delightful in a pan.) (15+) **B**
- 696.600 : NARCISSUS BULBOCODIUM var. PALLIDUS** * Morocco, High Atlas, Tizi Gourane above Amizmiz. 1800m. Schist fissures. (Cultivated seed from our 1982 coll., apparently, 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. (Robust with big, primrose-yellow flowers in winter. Alpine-house.) (10+) **C**
- 698.250 : NARCISSUS BULBOCODIUM var. TENUIFOLIUS** * Portugal. Ex a J.W. Blanchard coll. (Vigorous, floriferous, very deep yellow, dwarf hoop-petticoat with dark, thready leaves. Excellent alpine-house pan-plant.) (15+) **B**
- 699.806 : NARCISSUS CANTABRICUS** (subsp. *cantabricus*) * Spain, Malaga, near Estepona. Ex a B. Comeille coll. (A reliable & free-flowering form with profuse, pure-white hoop-petticoat flowers in early winter to brighten the alpine-house.) (10+) **C**
- 699.819 : NARCISSUS CANTABRICUS** (subsp. *cantabricus*) * No data. Forms from J.W. Blanchard & R. & R. Wallis . . . (15+) **C**
- 699.850 : NARCISSUS CANTABRICUS var. PETUNIOIDES** * Selfed seed from the original clone of this spring-flowering taxon, described by Fernandes from material grown by John Blanchard's father. (It should have had a *clonal* name.) All will be white but some will have the distinct, flat, round corona of the parent. The name can be applied legitimately only to these (10) **E**
- 699.950 : NARCISSUS CAVANILLESII** (*Tapeinanthus humilis*) Morocco, N of Ounara, ESE of Essaouira (Mogador). J.W. Blanchard 93-02. (A little stored, wild seed left of this distinct plant, only recently placed in *Narcissus*. Upward-facing, starry, yellow flowers before the leaves, in autumn. In exceptionally fine form in this area with broader segments & 2-3 flowers per stem.) (15+) **D**
- 700.000 : NARCISSUS CORDUBENSIS** * Spain, Malaga, Serrania de Ronda. Ex a J.W. Blanchard coll. (A fine, scented, deep yellow jonquil, near *N. fernandesii*, with up to 3 flowers on 20-30cm. stems. Accommodating in pots or the bulb-frame.) (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*.) (8) **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 Valdolinares. 1500m. In turf. Ex a J.W. Blanchard coll. (From a type-locality coll. of this dwarf, snow-melt trumpet daffodil. In nature, it opens 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, mainly distributed locally along the drainage of the Tagus. A poorly defined species in a confusing group but all variations are worthwhile. (10+) **C**
- 701.050 : NARCISSUS aff. FERNANDESII** * Spain, SE of Almaden. Ex J.W. Blanchard 86-03 (Originally from an isolated colony mentioned on p.83 of John's monograph. M. Tucker writes "stunning" - a tall jonquil with up to seven large flowers.) (10+) **D**
- 701.600 : NARCISSUS HISPANICUS** * No data. A fine, rich- yellow trumpet daffodil, known in cultivation for over 400 years but of obscure origin and debatable taxonomic status. Included under *N. pseudonarcissus* subsp. *major* by Webb. (8) **B**
- 701.850 : NARCISSUS JACQUEMONDII** (see also 696.600 : *Narcissus bulbocodium* (subsp. *vulgaris*) var. *pallidus*) Morocco, High Atlas Mts., between Asni & Amizmiz. J.W. Blanchard coll. (A 1996 type-locality coll. by John of this recently named little hoop-petticoat. It appears to be the same taxon we have listed under Maire's name. Suit yourselves. Primrose. 10cm. high.) (15+) **D**

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

- 702.100 : NARCISSUS LONGISPATUS** * Spain, Albacete, Sierra de Alcaraz. Ex J.W. Blanchard 86-16 (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 possibly be happiest outside in the UK. Ascending yellow trumpets.) (8) **D**
- 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. longispatus* & generally best outside in the UK. Differs from the preceding 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* & seldom seen in cultivation.) (8) **B**
- 702.480 : NARCISSUS NOBILIS var. LEONENSIS** * No data. The imposing, western race of this large, striking trumpet daffodil, with pale-yellow to white segments around the deep yellow trumpet. From the Picos de Europa in NW Spain & beyond. (5) **C**
- 702.500 : NARCISSUS OBVALLARIS** UK, Wales, Dyfed, below Ffostrasol. 150m. Open grassland & deciduous woodland. (Our lovely, local Welsh trumpet daffodil. Really an imaginary taxon but generally different to the more eastern British colonies of *N. pseudonarcissus* in its horizontal to upright-facing flowers which tend to be concolourous rather than bicoloured.) (20+) **B**
- 702.702 : NARCISSUS PAPYRACEUS** * Cyprus. Ex a C.C. Mountfort coll. (A fine, distinct, vigorous tazetta, long grown by John as *N. pachybolbus* but possibly most safely labelled *N. papyraceus* Cyprus form. Clusters of scented, white flowers.) (8) **B**
- 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** - Ex 'Julia Jane' selfed * Data as above. From an outstanding clone, selected in flower here from among thousands. The parent is virtually a pale yellow version of *N. cantabricus* var. *petunoides* 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.) (15+) **D**
- 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.) (10+) **B**
- 705.405 : NARCISSUS ROMIEUXII subsp. ALBIDUS var. ZAIANICUS** * Morocco, Zaiane 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 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.) (8) **C**
- 705.502 : NARCISSUS RUPICOLA** (subsp. *rupicola*) * Spain, Caceres, Sierra Guadalupe. Ex a T. Norman coll. (8) **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) **D**
- 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**
- 706.620 : NARCISSUS TAZETTA** (subsp. *tazetta*) * Italy, Sicily, Madonie Nebrodi. Ex an A. Edwards coll. (From the superlative, classic Sicilian tazetta photographed by Alan for the frontispiece of John Blanchard's monograph (Plate 2). Clusters of flowers with broad, pure-white segments surrounding the orange-yellow, cup-shaped coronas, on stems of about 30cm.) (8) **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**
- 707.415 : NARCISSUS TRIANDRUS var. CERNUUS** (syn. subsp. *pallidulus*) * Portugal, Mondego valley. Ex a P. Bird coll. (Over much of Portugal & Spain, narrower-leaved, cream to pale yellow colonies occur, sometimes varying to deeper shades.) (10+) **C**
- 745.802 : PAEONIA ANOMALA** Russia, Khakassia, Shirinsky district. (A central Siberian coll. of this fine species, widespread in the cold areas of N Asia. Foliage cut into narrow segments, beautiful even without the flat flowers, up to 9cm. across, in deepest rose-pink. Well depicted in Rix & Phillips, Vol. 1 Variation unknown. All *Paenonia* seed listed is from 1996.) (6) **C**
- 746.020 : PAEONIA BROTEROI** * No data. A fine species, confined to the Iberian peninsula. Deep pink bowls. (6) **C**

- 746.100 : PAEONIA CAMBESSEDESII** * The dwarfest 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
- 746.500 : PAEONIA DAURICA** (*P. triternata*) (*P. mascula* group) Ukraine, Krim (Crimea). (Close to *P. mascula* but distinct in its few, rounded leaflets with undulate margins. This name has been applied to plants in SE Europe & Turkey which approach the Crimean ones but for the purist this is the only 'real thing'. The valid name is an unfortunate misspelling of "*P. taurica*."). (6) D
- 746.640 : PAEONIA LITHOPHILA** (*P. tenuifolia* group) Ukraine, Krim (Crimea). (Much dissected leaves finely cut into a mass of filiform segments. Glossy, brilliant crimson bowls hold bright yellow stamens in early summer. This is the race we grew as *P. tenuifolia* in our Dorset nursery years ago from seed received from what was then the Nikita Botanic Garden in Yalta.) (6) D
- 747.110 : PAEONIA MLOKOSSEWITSCHII** * No data. "A sovereign among Paeonies" according to Farrer. Few would disagree. Large, pale lemon-yellow flowers with deeper yellow stamens above 60cm. clumps of rounded, greyish-green leaves. In the soft climate of the UK, the crimson-tinted, young foliage sometimes develops early and can be scorched by cold winds. (6) C
- 747.850 : PAEONIA STEVENIANA** (*P. wittmanniana* group) (possibly the same as *P.w.* var. *rudicarpa*) Georgia, Bakuriani area. (Likely to be wholly different to *P. mlokosewitschii*. Maybe with paler flowers, just tinged with citron-yellow, holding stamens with reddish filaments, over larger, more wrinkled foliage. Will think these should produce deeper yellows than *P. mlokosewitschii*. We still know little of the variation of these Caucasian populations & suspect that Russian 'splitting' is justified.) (5) F
- 747.960 : PAEONIA TOMENTOSA** (*P. wittmanniana* group) 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.) (5) F
- 758.001 : PELARGONIUM ENDLICHERIANUM** * Turkey, Erzincan, E of Refahiye. 1500m. Igneous scree. (This & the next are extraordinary, disjunct relicts stranded in Turkey, thousands of miles from their nearest relatives in Sect. *Jenkinsonia*, in the Cape. Local but widespread from Mugla in the SW to the Coruh valley on the Georgian border. Butterfly-like flowers with two large, upper petals are usually magenta. This is from a bright-pink form with crimson veins. Spectacular in the bulb-frame, creating a brilliant patch of colour in mid-summer, Absolutely temperature-hardy & possible outside in the UK in a very sunny, dry site.) (5) C
- 758.100 : PELARGONIUM QUERCETORUM** * Turkey, Hakkari, S of Hakkari. 1300m. Limestone scree on steep E-facing slope with *Quercus*. (A much larger plant, about 60cm. high, with rounded, lobed, soft, green leaves & crown-like umbels of brilliant sugar-pink flowers. Discovered quite recently in N Iraq this just creeps into SE Turkey in the Zap gorge. Our stock grew well at the base of a S-facing wall in Dorset, UK, but we grow it here with protection. A local plant in nature & rare in cultivation.) (5) E
- 800.210 : PULSATILLA ALBANA subsp. ARMENA** (*Pulsatilla violacea*) * No data. Distributed in dryish, montane-steppe from NE Turkey, through Transcaucasia to NW Iran. Soft violet-blue, nodding bells on 15cm. stems. Sunny scree in UK. (15+) C
- 800.600 : PULSATILLA CAMPANELLA** * China, Xinjiang, Tien Shan, Urumqi valley. 2470m. Ex T. Dickerson 94-34. (A delightful, little Central Asian species with neat, very finely cut, basal foliage and drooping bells in a lovely deep violet.) (10) D
- 800.710 : PULSATILLA HALLERI subsp. SLAVICA** * No data. Basal leaves much woollier & less finely cut than *P. vulgaris*. From a pale lilac form of the Carpathian race of this eastern species with its widely isolated populations. (15+) B
- 800.800 : PULSATILLA HALLERI subsp. TAURICA** Ukraine, Krim. (Wild seed of the Crimean race, which opens its, usually dark violet, flowers on very short, 5cm. stems. Foliage much more finely cut & woollier than the preceding.) (15+) C
- 801.000 : PULSATILLA MONTANA** * Slovenia, NW of Permani. 500m. Exposed karst with diverse meadow-vegetation. (Seed grown in Dorset, UK, from our 1990 coll. A handsome thing with bells of intense black-violet & a cone of golden anthers.) (15+) C
- 827.150 : ROMULEA BULBOCODIUM** - Knightshayes form * A fine, vigorous, comparatively hardy form of this widespread, variable, Mediterranean species. Grassy leaves & big rich-violet crocus-like flowers with yellow throats in spring. (20+) B
- 827.151 : ROMULEA BULBOCODIUM** - Late form * No data. From Alan Edwards but originally from Cedric Morris (15+) B
- 827.410 : ROMULEA BULBOCODIUM var. CROCEA** * No data. All-yellow race from sandy soils in S Turkey. (10) C
- 829.505 : ROMULEA LINARESHI subsp. GRAECA** * Greece, Evia. Ex CEH 620. (The Aegean race with pointed segments to the concolourous, violet flowers - the type-race is a Sicilian endemic.) (15+) B
- 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
- 873.020 : SCILLA BIFOLIA** Greece, Fokida, Oros Parnassos. 2100m. Open, stony, limestone slopes. 7.6.96 (The high altitude, Greek, race of this variable 'species-group' follows the melting snows with a wash of ultramarine-blue, starry flowers.) (20+) B
- 873.210 : SCILLA BITHYNICA** * No data. Thanks to Brian & Margaret Mathew's 'Bulb Newsletter' (No. , March, 1996), we can name this excellent plant which sows itself here. Quite close to *S. messeniaca* (which we have not tried outside) with 20cm. racemes of starry flowers. Seed from both the pale-blue & the white with navy-blue anthers. They look well intermingled.) (20+) A
- 873.650 : SCILLA HOHENACKERI** * Iran, Mazendaran, S of Chalus. (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

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

- 874.400 : SCILLA LILIO-HYACINTHUS** * France, Hautes-Pyrenees, N of Col du Pourtalet. 1500m. Deciduous woodland. (Easy garden-plant in the cool climate of the UK. Attractive, lush, glossy leaves & racemes of starry pale-blue flowers.) (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 & starting to 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 MORRISII** * Cyprus, Paphos district. 700m. Moist, shaded crevices & banks, under *Quercus*. Ex D. Meikle 4015. (A very local Cyprus endemic, now being successfully maintained in cultivation. About 10 cm. high with erect racemes of 3-5, campanulate flowers in milky-white tinged with lilac & with pale-blue anthers. Attractive & no great problem to grow.) (10) **E**
- 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, Kardamili. 30m. Dense shade in leafsoil. D.M. Hoskins 95-3. (The very local populations in the S Peloponnese are far removed from the better-known S Turkish plants & are 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 *Cyclamen* (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 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**
- 969.550 : TULIPA CLUSIANA** * From a collection made in Nepal. The species in a broad sense extends from E Iran to Tibet. The white W Himalayan tulips with pink exteriors are confusing & some might place this in *T. stellata* or *T. aitchisonii*. (10+) **C**
- 970.300 : TULIPA ILIENSIS** * No data. A neat, little tulip from the Pamir-Alai, in the group around *T. kolpakowskiana*. Smaller even than *T. cretica*. Flowers with greenish-rimmed, rosy-carmine exteriors open to flat, yellow stars. (15+) **C**
- 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 but always eye-burning scarlet or orange.) (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. (15+) **B**
- 971.100 : TULIPA REGELII** * Kazakhstan. Ex a J. Ruksans coll. ("The weirdest tulip" writes Henrik Zetterlund. "One, grey, glaucous leaf, 3-4cm. wide, sharply corrugated. Flower like a miniature *T. kaufmanniana* on a 5cm. scape. Adorable! In nature, it grows rather shallowly (10cm.) in very dry steppe at quite low altitudes. In cultivation it can take a lot of cold. Delay it by storing at room temperature till mid-December. It should be completely dry from June to December.") (8) **F**
- 971.410 : TULIPA SPRENGERI** * No data. Found last century near Amasya in N Turkey & now possibly extinct in the wild. The best garden-plant in the genus for the UK. Elegant, scarlet-orange, olive-green-backed flowers in June, later than any other. (20+) **A**
- 971.950 : TULIPA SYLVESTRIS** * No data. From the in Peter Chappell's Hampshire garden. 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**
- 971.800 : TULIPA TSCHIMGANICA** * A gorgeous thing, mainly recorded from the Chimgan valley, NE of Tashkent in Uzbekistan. Distinct in its yellow flowers with central markings of cerise-red, varying from a mere fleck to an extensive blotch (10+) **C**

A : \$2.00 ; £1.50 ; DM4,- ; FF13,- **C** : \$4.00 ; £2.50 ; DM6,- ; FF21,- **E** : \$7.00 ; £4.50 ; DM12,- ; FF40,-
B : \$3.00 ; £2.00 ; DM5,- ; FF17,- **D** : \$5.00 ; £3.50 ; DM9,- ; FF30,- **F** : \$9.00 ; £6.00 ; DM15,- ; FF50,-

We list only *Erythronium*, *Fritillaria* and cultivated *Trilliaceae* this summer. Seed is 1997 cultivated material or earlier wild collections with a few 1997 wild seeds. All seed collected prior to 1997 has been stored in low humidity under refrigerated conditions. Experience over several years confirms that little, if any, deterioration in viability will have occurred. While we hope to include many other North American genera in our winter list, our seed-bank of other summer-dormant North American genera is extensive. You may refer to our 1996 summer-list, particularly in the case of *Calochortus*, where almost all are still available. We can send the relevant pages on request.

Erythronium : big chill for the flowers of the melting snows

Most grow in well-drained habitats, usually in light shade. When areas are hot in summer, the corms are likely to be deep among stones. Their preference for serpentine areas is marked - inhospitable soils, deficient in nitrogen, phosphorus & 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 better. Species from warm, dry summer habitats might be best in well-drained sites in full sun in cool, wet climates. Seed of most of the species will come up easily after a sufficient cool period. However,

early experience with the high altitude *E. klamathense*, *E. pusaterii*, *E. pluriflorum* & *E. purpurascens* showed them to be very difficult to germinate. In 1996 John Andrews in California, Art Guppy in British Columbia & Norman Stevens in the UK, wholly independently, germinated *E. pluriflorum* & *E. pusaterii* after subjecting imbibed seed to long spells in the refrigerator. Seed sown by John actually germinated at a temperature below the freezing-point of water. This is an exceptional but not unique phenomenon. What would appear to be required is a period of about 6 months at a temperature around 0 C or 32 F.

- 1.350.200 : ERYTHRONIUM CALIFORNICUM** Cal., Humboldt Co., SSW of Willow Creek. 1580m. Stony serpentine areas in openings among conifers. 30.7.95 (Beautifully mottled leaves. Creamy white flowers with yellow throats.) (20+) C
- 1.350.202 : ERYTHRONIUM CALIFORNICUM** Cal., Trinity Co. 1030m. Serpentine scree in open woodland. J. & G. Robinett coll. 4.7.95 (Population intermediate to *E. multiscapoideum*. From the area we collected seed in 1989 (our 11005)) (20+) C
- 1.350.209 : ERYTHRONIUM CALIFORNICUM *** Cal., Mendocino Co., near Boonville. c. 200m. Ex an R.& R. Wallis coll. (From the low-altitude Anderson Valley population, down in the redwood zone, SW of the type-locality near Ukiah.) (15+) C
- 1.350.410 : ERYTHRONIUM CITRINUM** Cal., Del Norte Co. 500-600m. J.& G. Robinett coll. 3.6.96 (Mottled leaves & white to cream flowers with lemon bases. Restricted to the Coast Ranges on the California-Oregon line.) (15+) C
- 1.350.500 : ERYTHRONIUM CITRINUM var. RODERICKII** Cal., Trinity Co., Scott Mts., above Bear Creek 1250m. Coniferous forest. J. Andrews coll. 1995 (Near the type locality. Listed in 1989 as a form of *E. californicum* with purple filaments. *E. citrinum*, *E. hendersonii* & *E. californicum* are all about 35km. distant. This may have something to do with all or any of them.) ... (20+) D
- 1.351.000 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Utah, Cache Co., above Tony Grove Lake. 2400m. Open slopes with *Artemisia*. 19.7.95 (Outstanding bright yellow flowers & plain green leaves. Here with red-brown anthers.) .. (20+) C
- 1.351.002 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Idaho, Nez Perce Co., N of Lake Waha. 300m. Among conifers. 25.7.95 (Applegate assigns an 1892 coll. here to this type-race. Red, white & yellow anthers occur in N Idaho.) .. (20+) C
- 1.351.201 : ERYTHRONIUM HELENAE *** Cal., Lake Co., SE of Middletown. 450m. Among *Arctostaphylos* chapparal on serpentine slope. (Very local species with mottled leaves, near *E. californicum* but with yellow anthers. Good under glass in UK) (15) D
- 1.351.202 : ERYTHRONIUM HELENAE** Cal., Napa Co., Aetna Springs. 300m. Serpentine. N. Gielegem coll. 22.5.97 (15) D
- 1.351.300 : ERYTHRONIUM HENDERSONII *** Oregon, Jackson Co., N of Medford. 400m. Among scrub. (Dark-mottled leaves. Lavender-pink flowers with dark anthers & a purple base, with a white or yellow zone. Easy under glass in the UK.) (15+) C
- 1.351.301 : ERYTHRONIUM HENDERSONII** Oregon, Jackson Co., Siskiyou summit. 1030m. Wooded, NW-facing slope, in serpentine-clay. J. & G. Robinett coll. 28.6.96 (From the high altitude population along the California line.) (15+) C
- 1.351.500 : ERYTHRONIUM HOWELLII** Oregon, Josephine Co., E of Takilma. 670m. Among conifers on open, turfy, stony slopes. 12.6.95 (Nearest to *E. citrinum* but with no basal appendages. White flowers turn pink as they age. Mottled leaves.) (20+) C
- 1.351.700 : ERYTHRONIUM KLAMATHENSE** Cal. Siskiyou Co., SW of Castle Lake. 1580m. Openings among scrub on steep, stony slopes. 29.7.95 (High altitude species, rarely extending below 1500m., & closest to *E. purpurascens*. Yellow-centred, milk-white flowers with creamy anthers. Plain bright-green leaves. A local, mountain-plant, mainly of S central Oregon) (15) D
- 1.351.701 : ERYTHRONIUM KLAMATHENSE** Cal., Shasta Co. 1200m. J. & G. Robinett coll. 30.6.95 (15) D
- 1.352.000 : ERYTHRONIUM MULTISCAPOIDEUM** Cal., Butte Co., N of Magalia. 600m. Under *Cupressus* on serpentine. 16.6.95 (Mottled leaves. White flowers with pale, greenish yellow centres & white anthers. Stoloniferous corms.) (20+) 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 from this one locality. Never described botanically. Now well-established & proving adaptable & growable in the UK, as *E. "cliftonii"*. Said to be quite accommodating in the open garden.) (15+) D

- 1.352.200 : ERYTHRONIUM NUDOPETALUM** Idaho, Valley Co., NNE of Lowman, along Cache Creek. 2050m. Margin of coniferous woodland. 21.7.95 (Type-locality coll. of this obscure plant. Yellow flowers with dark-red anthers.) (10) **E**
- 1.352.400 : ERYTHRONIUM OREGONUM subsp. LEUCANDRUM *** Oregon, Douglas Co., S of Tiller. 460m. Among *Pinus* on serpentine. (White flowers, often maturing to pink, marked in orange, dark-red or brown around the yellow bases.) (15+) **C**
- 1.352.700 : ERYTHRONIUM PLURIFLORUM** Cal., Madera Co., Shuteye Peak (Sierra Nevada E of Merced). 2310m. NW-facing granite ledges. J. Andrews coll., 1995 (Described in 1990 & allied to *E. purpurascens* with plain green leaves but the 30cm. stems carry up to 10 (exceptionally to 20) nodding, yellow flowers, maturing to bronze or pink. See introductory comments.) . . . (15+) **E**
- 1.352.801 : ERYTHRONIUM PURPURASCENS** Cal., Placer Co., Monumental Ridge (Sierra Nevada W of Truckee). 2060m. J. Andrews coll. 1994 (High altitude species. Plain green leaves & yellow-centred white flowers, purple-tinged with age.) . . . (15+) **D**
- 1.353.000 : ERYTHRONIUM PUSATERII** Cal., Tulare Co., Jordan Peak (Sierra Nevada ENE of Porterville). 2774m. Granite rock-falls. J. Andrews coll. 1995 (Again described in 1990. Like a large *E. purpurascens* with a larger yellow centre. The most southern of the western ones, confined to a small area at the sources of the Tule & Kaweah Rivers. See introductory comments.) . . . (15+) **E**
- 1.353.120 : ERYTHRONIUM REVOLUTUM *** No data. From vigorous British garden-stock with large flowers in varying shades of pink. A species of the wet Pacific NW with beautiful, brown-marbled, lush, green foliage. If you just want some good garden-plants for the UK, where this will usually sow itself in shady conditions, this is certainly what you should have. (20+) **C**
- 1.353.300 : ERYTHRONIUM TUOLUMNENSE** Cal., Tuolumne Co., NE of Columbia. 750m. Steep slopes in deciduous woodland. 19.6.95 (Plain green leaves & up to 5, bright-yellow flowers. Amazingly hardy & easy in European gardens. A low altitude relic, nearest to *E. grandiflorum*, of limited distribution in the wild but more locally abundant than it was once thought.) (15+) **C**

Fritillaria : the serpentine endemics take to cultivation

About one-fifth of this genus occurs in N America, centred on N California, where it appears to be actively evolving, showing much variation within the current concept of each 'species'. Some who know the genus well in California are not impressed by the current taxonomic treatment. Forms of *F. affinis* (*F. lanceolata*) and *F. biflora* can look more distinct than many Mediterranean populations given specific status. For gardeners,

the articles written by Dr. Sylvia Martinelli in the March & June 1992 AGS Bulletins are useful references. Successful cultivation of these plants is widespread now. The basic criteria are well-drained, lime-free composts and, in the UK, giving them their first winter watering late, in November or December. Excess nitrogen should be avoided, especially for serpentine species - please note our comments on this under *Erythronium*.

- 1.370.000 : FRITILLARIA AFFINIS** (*F. lanceolata*) Cal., Solano Co., NW of Vacaville. 550m. Steep scrub-covered slopes. 17.6.95 (Coast Range form with nodding bells mottled in brown-purple & pale yellow. One of the easier ones in cultivation.) (20+) **B**
- 1.370.050 : FRITILLARIA AFFINIS** Oregon, Josephine Co., SW of Selma. 450m. Among volcanic debris on open, S-facing slopes. 13.6.95 (Illinois Valley form, 20cm. high, often single-flowered & yellowish green with just a few brown lines.) (15+) **C**
- 1.370.200 : FRITILLARIA AFFINIS** (*F. lanceolata*) Idaho, Kootenai Co., ESE of Worley. 750m. *Pinus* woodland on sandy clay. 23.7.95 (A giant from the NE extremity of the group distribution, just S of the Canadian border. Stout stems, 60cm. high, whorled with broadly lanceolate leaves carry up to 8 flowers. We should be surprised if flowers are similar to western plants.) (20+) **C**
- 1.370.301 : FRITILLARIA AGRESTIS** Cal., Alameda Co., ESE of Livermore. 450m. Among grass on clay slopes. 8.6.95 (An adobe-clay plant, the valley-grassland version of *F. biflora*. Green-cream bells, purple-brown inside. Up to 50 cm.) (20+) **C**
- 1.370.500 : FRITILLARIA BIFLORA** Cal., San Luis Obispo Co., above San Simeon Bay. 10m. Coastal grassland in sandy clay. 21.6.95 (Darkest brown-purple, green-striped bells on 20-30cm. stems. A coastal plant maybe best grown frost-free.) (20+) **B**
- 1.370.501 : FRITILLARIA BIFLORA** Cal., Santa Barbara Co. 1150m. NE-sloping, open, serpentine-clay meadow. J. & G. Robinett coll. 17.6.95 (From well above the published maximum altitude for this. May be a very hardy population. 10-30cm.) (20+) **C**
- 1.370.650 : FRITILLARIA EASTWOODIAE** (*F. phaeanthera*) * Cal., Shasta Co., S of Shingletown. 1000m. Openings in mixed woodland. (A dubious 'species', maybe derived from *F. recurva* & *F. micrantha*. Grows well here & is quite generous with its little flowers with reflexed segments. Seed from forms in reddish apricot to brown-orange, yellower inside. 40cm.) (15+) **C**
- 1.370.800 : FRITILLARIA GLAUCA *** Cal., Humboldt Co., SSW of Willow Creek. 1580m. Unstable, serpentine talus. (Very dwarf, serpentine-endemic of the NW Coast Ranges. Thick, glaucous leaves & nodding bells in yellow to red-brown.) (10+) **E**
- 1.370.802 : FRITILLARIA GLAUCA *** Cal., Mendocino Co., Mendocino Pass. 1500m. Serpentine scree. (Only from selected yellows, similar to the plant illustrated on p.182 of the June, 1997, A.G.S. Bulletin (Vol.65, No.2).) (10+) **E**
- 1.371.101 : FRITILLARIA LILIACEA** Cal., Sonoma Co. 240m. J. & G. Robinett coll. 27.5.96 (Beautiful & with a very limited distribution N & S of San Francisco. From a high altitude for the species, normally a coastal fog-belt plant. Best kept frost-free in winter & cool in summer. Bright-green leaves, close to the ground, & pendant, creamy white bells on 30cm. stems.) (15+) **D**

- 1.371.200 : FRITILLARIA MICRANTHA *** Cal., Mariposa Co., NE of Coulterville. 1050m. Grassy slope in thin coniferous forest. 19.6.95 (Robust species of the west-central Sierra Nevada foothills seems accomodating with us. Recorded to 90cm high but 30cm here. Up to 10 nodding bells, usually purplish but varying to paler, greener tones & sometimes faintly mottled.) (15+) **C**
- 1.371.500 : FRITILLARIA PINETORUM *** Cal., Kern Co., Mt. Pinos. 2650m. In granite grit, among scrub at margin of *Pinus* woods. (Absolutely distinct here, resembling *F. falcata* in its wide-open, thick-textured, upward-tilted flowers and fleshy, glaucous foliage. Lime-yellow thickly peppered all over with purple-brown dots & with bright orange anthers. Less than 15cm. high.) (10) **E**
- 1.371.520 : FRITILLARIA PINETORUM** Cal., Tulare Co., Jordan Peak. 2770m. J. Andrews coll. 1995 (Very high altitude plant from the granites of the Sierra Nevada. Obscure & never been grown. John thinks these may be different to the above but they have the curious horned capsule, considered unique to this species. We may be dealing with several taxa or intergrades.) (15+) **D**
- 1.371.600 : FRITILLARIA PLURIFLORA** Cal., Lake Co., Walker Ridge. 600m. Open, grassy areas in heavy clay. 17.6.95 (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. A challenge but it can be grown well.) (15+) **C**
- 1.371.602 : FRITILLARIA PLURIFLORA** Cal., Colusa Co. 400m. Heavy clay. J. & G. Robinett coll. 11.6.95 (15+) **C**
- 1.371.700 : FRITILLARIA PUDICA** Idaho, Butte Co., NE of Carey. 1520m. E & SE-facing slopes of stony ridge. 20.7.95 (Unlike any other N American. Nodding, clear-yellow bells mature to orange shades. Not always easy - likes a cold winter.) (20+) **B**
- 1.371.750 : FRITILLARIA PUDICA *** No data. An extremely fine, vigorous, fragrant 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. 12.6.95 (Local on the N Coast Ranges. Now being very successfully grown in Europe. Stems of 10cm. or less carry a few wide, waxy, nodding bells, described by Martinelli as "voluptuously curved", "the shiniest, most delectable fritillaria flowers.") (20+) **C**
- 1.371.903 : FRITILLARIA RECURVA** Cal., Butte Co. 800m. J.& G. Robinett coll. 15.6.96 (Incomparable & unique orange-scarlet species. As well as this wild coll. we have our 1997 hand-pollinated seed. Needs care - not too hot & dry in summer.) (15) **D**
- 1.371.905 : FRITILLARIA RECURVA *** Cal., Trinity Co., NNW of Zenia. 1630m. Among conifers on serpentine. (15) **D**
- 1.371.906 : FRITILLARIA RECURVA *** Cal., Trinity Co., above Canyon Creek N of Junction City. 500m. Serpentine. (15) **D**
- 1.372.001 : FRITILLARIA RECURVA var. COCCINEA** Cal., Napa Co., Aetna Springs. c. 300m. N. Gielegem coll. 22.5.97 (Low altitude serpentine-chaparral race from a small area on the inner Coast Ranges. Segments of the flowers reputedly do not recurve at the tips and the colour is said to be a more brilliant scarlet, mottled with yellow. For warmer drier treatment. A few.) (10) **F**
- 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. Quite 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. 1995 (A narrow endemic of serpentine-barrens with the 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**

MEET THE NORTH AMERICAN FRITILLARIES : A COLLECTION

Six packets : *F. affinis*, *F. biflora* (1.370.500), *F. eastwoodiae* (1.370.650), *F. micrantha* (1.371.200), *F. pudica* (1.371.750) and *F. purdyi*

For only £10 or \$15

- 1.839.001 : SCOLIOPUS BIGELOVII *** Cal., Marin Co., near Nicasio. 30m. Woodland. Ex an R. & R. Wallis coll. (Summer-dormant *Trillium*-relative, local in moist, shady sites in the redwood-forests. Two, big, basal, veined & mottled leaves. Complex greenish white or yellowish flowers, marked & lined with purple-brown. Will grow in the peat-garden in the UK or in a pan.) (10+) **D**
- 1.920.010 : TRILLIUM CHLOROPETALUM - RED FORM *** Deep crimson form of this 30cm. high species from moist, W Coast woodlands, sometimes grown in the UK as "*T. sessile rubrum*" Large leaves, beautifully mottled with grey. These members of the *Trilliaceae* (including the above & the Asian *Trillidium*) have complex germination patterns. If you do not want to gamble by sowing conventionally, read the 8 page article in the Spring, 1997, NARGS Rock Garden Quarterly (Vol.55, No.2). We no longer store seed moist (it germinates at the even 60-70 F in our office) but dry it part-cleaned and try to get it too you promptly.) (10) **D**
- 1.920.200 : TRILLIUM HIBBERSONII *** Canada, British Columbia, Vancouver Island, W coast. (Though currently not recognized as separable from *T. ovatum*, merely an extreme miniature version of it, this is a most distinct & desirable plant horticulturally. In nature limited to a few remote localities but now well established in the UK, where it thrives & the stock is very even. About 10cm. high with clear pink flowers, becoming paler as they age. Some excellent 1997 seed from John Sanders (Devon, UK)) (10+) **E**
- 1.920.520 : TRILLIUM RIVALE *** From the Klamath ranges along the California-Oregon line. Dwarf with little white, pink-flushed or purple-speckled flowers. Not usually any trouble from dried seed but may take more than one year to germinate. (10+) **E**

A : \$2.00 ; £1.50 ; DM4,- ; FF13.- C : \$4.00 ; £2.50 ; DM6,- ; FF21.- E : \$7.00 ; £4.50 ; DM12,- ; FF40.-
 B : \$3.00 ; £2.00 ; DM5,- ; FF17.- D : \$5.00 ; £3.50 ; DM9,- ; FF30.- F : \$9.00 ; £6.00 ; DM15,- ; FF50.-

In the present short section, we offer mainly a little 1997 harvested seed from cultivated plants, which are mostly low-temperature growers best sown in autumn or early winter. The *Alstroemeria* spp. listed will all be freshly collected, cultivated either by ourselves or Mike Tucker (Somerset, UK) - all have set but they are not yet collected. They should offer no problem if sown without delay, though some growers continue to have difficulties with germinating this genus. They germinate at cool temperatures but seem to need a warm spell first. We are thrilled to be able to include some material collected during February & March, 1997, in the Falkland Islands by Bob Reid, who is currently in charge of the Department of Agriculture there. The Falklands may be quite a familiar name but it would

be a very complicated & expensive procedure for most of us to arrange a visit and this opportunity to acquire a range of wild, collected seeds with data borders on the unique. As with other southern hemisphere wild collections, the type of material might be better suited to our next list but by that time seed would be 9 months old. We hope Bob may be able to find time to collect a few more representatives of the islands' plants next season. If so, they will be in our summer, 1998, list. As with other geographical areas, we have now given population reference numbers to all identified South American material (not always easy where no standard floras exist) & seed-packets will be fully labelled with the name of the plant & brief field data, if any.

- 2.005.500 : ACAENA MAGELLANICA** Falkland Islands, E of Stanley, Whalebone Bay. 5m. Gravel. R. Reid coll. (Mats of glaucous, downy, pinnate leaves covered with round, red-tinged, burred heads. A plant of S Argentina & the Antarctic islands.) (20+) **B**
- 2.026.950 : ALSTROEMERIA aff. EXSERENS** * Chile, VI, Cachapoal, NE of Coya. Ex an A. Brinck coll. (as *A. exserens*) (Much taller, about 60cm., than the alpine type-race. Long, narrow leaves & big heads of rose-pink flowers, neatly banded bright yellow above the white, crimson-speckled zone of the upper, inner segments. Though different in character, a bit like a very large *A. pallida*. We cannot assign this to another species & the locality is within the distribution of *A. exserens*. Worthwhile & hardy.) (10+) **B**
- 2.027.010 : ALSTROEMERIA aff. GARAVENTAE** * Chile, V, Quillota, Cerro La Campana. Ex an A. Brinck coll. (From a coll. made a little to the N of the type-locality (at about 2000m. on the Cerro Vizcacha, on top of the coast range, W of Santiago), this does not match Bayer's description precisely & we wonder if *A. garaventae* & the equally obscure *A. zoellneri* (q.v.) intergrade or cross here. This striking & most distinct plant is certainly very close to *A. garaventae*, with large flowers on stems of about 30cm., but these are more open than in the type & heavily speckled on every segment (not just the inner ones) with broken lines of crimson dots on the salmon-pink ground, which ages to ruby shades. Should be perfectly hardy in most of the UK.) (10) **E**
- 2.027.110 : ALSTROEMERIA HOOKERI** (subsp. *hookeri*) * No data. A beautiful dwarf species, 15-20cm high, with narrow, greyish leaves & medium-sized, green-tipped, pastel pink flowers, blotched with gold & lightly speckled with red-brown on the white ground of the inner segments. From low altitudes in Regions VII & VIII but temperature-hardy here under cold glass. . . . (10+) **C**
- 2.027.800 : ALSTROEMERIA LIGTU subsp. INCARNATA** * Chile, VII, Cerro de los Cipreses (Rio Teno valley E of Curico). 1500m. Ex an A. Brinck coll. (Grown by Mike Tucker from Axel Brinck's coll. of *A. versicolor*. These both grow in this locality & Brinck also collected correctly named material here, where almost all colls. of this very local race have been made. Robust & about 1m. high, always with a pink ground-colour & distinct in its rather short, broad, upper segments. Glowingly described by Mike as "gorgeous...sumptuous...like no other...the largest flowered plant I have...the best one here" but not as satisfactory as some in the open garden & it does best protected from excess moisture from late summer through winter in his bulb-frame.) (10+) **C**
- 2.027.900 : ALSTROEMERIA LIGTU subsp. SIMSII** (*A. haemantha*) * Chile, VI, Cachapoal, Rio Cachapoal valley W of Pangal. 950m. Openings among scrub in sandy soil. (Raised from our coll. of *A. revoluta* (12529). We assume both were growing intermingled. Long known as *A. haemantha*, a misapplied name, the tallest race of *A. ligtu*, reaching 1.6m. in nature, more in cultivation, with huge umbels of up to 50 flowers. Basically brilliant orange-red to tomato-red, darker on the outside & towards the tips, with the long, prominent, upper, inner segments streaked red-brown on a gold-orange ground. Distributed from about 250m. near the coast to about 2000m. in the foothills E of the central valley & hardy in a well-drained, sunny site in the UK.) (10+) **B**
- 2.028.300 : ALSTROEMERIA MAGNIFICA subsp. MAXIMA** * Chile, IV, Choapa, Pichidangui. Ex an A. Brinck coll. (Indeed magnificent with very large, flat, lilac flowers heavily marked on the two upper segments with dark red. Up to 50cm. high with most distinct, bright-green, rather fleshy foliage, glossy on the upper surface. Though a low altitude coastal race, centred on the Valparaiso area, the sterile, overwintering rosettes were unharmed in our unheated greenhouse in the severe 1995-96 winter.) (10) **C**
- 2.028.500 : ALSTROEMERIA PALLIDA** * Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2200m. Steep, open, stony slopes. (Few alpine plants can rival the spectacle of this in flower. Remaining 20cm. or less high with us under glass here, its umbels of large flowers in pale to deep pink or white have the upper, inner segments blotched with gold & streaked with crimson. Limited to the ranges S & W of Aconcagua between 1500m. & 2800m., it should be tried outside in sunny scree in the UK.) (10) **C**
- 2.028.610 : ALSTROEMERIA PATAGONICA** * The dwarfest of all, with the most southern distribution, S from Santa Cruz & Chubut in Argentina to Tierra del Fuego. Narrow, twisted, blue-grey foliage & small, upward-facing, orange-yellow flowers on stems under 10cm. high. Absolutely hardy in the UK & possible in a trough or scree-bed but maybe easiest in the alpine-house. . . . (8) **D**
- 2.029.100 : ALSTROEMERIA PRESLIANA subsp. AUSTRALIS** * Chile, IX, Malleco, Cordillera de Nahuelbuta, W of Vegas Blancas. 1200m. Openings in woodland, often in shade. (One of the most southern, distinct from the type-race in its striking, red-brown anthers, more elongated upper segments, heavily streaked with crimson, & intense, deep-pink ground-colour. In autumn, it forms swathes of pink in the *Araucaria* cloud-forest at 1400m. but tends to flower about mid-summer in the UK, where it has proved hardy, tolerant of wetter summers & reliable, remaining compact both in its rootstock & height at around 30cm.) (10+) **C**

Species from South America : Seeds from Jim & Jenny Archibald

- 2.030.310 : ALSTROEMERIA aff. ZOELLNERI** * Chile, V, Quillota, Cerro La Campana. Ex an A. Brinck coll. (From the same wild coll. which yielded *A. aff. garaventae*. While it does not wholly match the type-race, this is nearer *A. zoellneri* than *A. garaventae*, with elegant, pointed, pale lilac segments, barely speckled & smudged with yellow on the upper, inner ones. 40cm. high.) . . . (10) **D**
- 2.066.500 : ARMERIA MACLOVIANA** Falkland Is., E of Stanley, Cape Pembroke lighthouse. 5m. Wet sand between rocks. R. Reid coll. (Falklands representative of this cosmopolitan maritime genus - mounded pink thrift inured to the Atlantic gales.) . . . (20+) **B**
- 2.085.500 : BACCHARIS MAGELLANICA** Falkland Islands, Stanley Common. 30m. Deep peat (pH 4.2). R. Reid coll. (A ground-hugging shrub in the *Compositae*, forming mats about 1m. across but only a few cm. high.) . . . (15+) **B**
- 2.198.200 : CALTHA SAGITTATA** Falkland Islands, E of Stanley, Whalebone Bay. 5m. Wet, shallow peat over clay. R. Reid coll. (This is a neat, dwarf *Caltha*, possibly the most horticulturally worthy of the S Americans. It is widely distributed from the central Andes down to Tierra del Fuego in wet, montane sites. Pads a few cm. high with lots of little white flowers.) . . . (20+) **C**
- 2.247.000 : CHILIOTRICHUM DIFFUSUM** Falkland Islands, E of Stanley, Gypsy Cove. 10m. Poorly drained, shallow sand over clay. R. Reid coll. (Dense, tidy shrub up to 1m. high but usually less with white tomentose stems & dark, leathery, revolute leaves, white below. White daisy-heads with a few broad rays. Also grows in the far S of Argentina - "muy ornamental".) . . . (15+) **C**
- 2.291.500 : EMPETRUM RUBRUM** Falkland Islands, E of Stanley, Cape Pembroke. 10m. Well-drained, sandy peat. R. Reid coll. (A mat-forming, heath-like shrub, up to 15cm. high but 1m. across, clad in tiny needle-leaves & sprinkled with red crowberries in autumn. One of those ancient genera, which occur in the cold, inhospitable areas of both hemispheres.) . . . (15+) **C**
- 2.400.101 : GUNNERA MAGELLANICA** Falkland Islands, Stanley Common. 30m. Eroding peat banks. R. Reid coll. (Running mats of rounded, deciduous leaves, a few cm. high. Inconspicuous flowers precede orange fruit-clusters on the females.) . . . (15+) **B**
- 2.570.000 : LUZURIAGA MARGINATA** Falkland Islands, base of Mt. Kent. 100m. In shade of large rocks in 'stone run'. R. Reid coll. (A shrubby *Lapageria* & *Philesia* relative from these cold, windswept, Atlantic islands & the adjacent S tip of Chile & Argentina. Runs underground, like *Philesia*, & sends up 20cm. stems clad in little, narrow, alternate, leathery leaves & carrying pale-pink flowers followed by fleshy, purplish fruits. We grow *L. radicans* from the more northern Chilean forests but have never seen this southern, cold-climate relative mentioned as being in cultivation. May not be too easy to get established initially.) . . . (5) **E**
- 2.780.000 : RHODOPHALA ADVENA** * Chile, VIII, Bio Bio, S of Canteras (E of Los Angeles). 400m. Open site in sandy soil. (No trouble to grow in the bulb-frame or cold-greenhouse in the UK. Red & yellow forms, with some in between, occur here but so far we have only flowered scarlet & apricot ones. Up to 5 flowers on each 20-30cm. stem in mid-summer.) . . . (10+) **C**
- 2.781.500 : RHODOPHALA PRATENSIS** * Chile, IX, Malleco, Cordillera de Nahuelbuta. 1200m. Openings among scrub. (Elegant, pale scarlet-flowered species, about 20cm. high, which Prof. Grau, who is working on the Chilean species, suggests may be the "often wrongly interpreted *R. pratensis*." No problem to grow here in our unheated bulb-house, flowering in summer.) . . . (10) **D**
- 2.851.500 : SENECIO CANDICANS** Falkland Islands, E of Stanley, Surf Bay. 1m. Sandy peat just above high water mark. R. Reid coll. (A magnificent foliage-plant with big leaves cut out of white felt. We grew this well for many years from a Ruth Tweedie Argentinian coll. - it grows down the S Chilean coast to Tierra del Fuego then jumps to the Falklands. Leaves stand about 20-30cm. high & it can be grown in the alpine-house, though it likes more freedom to do well. Propagate by root-cuttings.) . . . (5) **D**
- 2.855.000 : SENECIO LITTORALIS** Falkland Islands, W of Stanley to Estancia, Stone Run. 100m. Very well drained, gravelly peat among boulders. R. Reid coll. (A neat Falkland Islands endemic, which, as far as we know, has not been in cultivation. It has a sub-shrubby habit, about 30cm. in nature but doubtless more in gardens, with narrow foliage & rather fine yellow daisies.) . . . (8) **D**
- 2.910.500 : SOLENOMELUS PEDUNCULATUS** Chile, VI, Cachapoal, Rio Cachapoal valley W of Pungal. 950m. Openings among scrub in sandy soil. 2.3.94 (A fine, summer-dormant, rhizomatous *Sisyrinchium*-relative for the alpine-house or bulb-frame. Tapered, grassy foliage & big, rounded, rich-yellow flowers from prominent spathe-bracts on 20cm. stems.) . . . (15+) **C**
- 2.940.010 : TECOPHILAEA CYANOCROCUS** * No data. The famous blue Chilean crocus, supposedly extinct in the wild but well established in cultivation. Not difficult to grow in standard Mediterranean bulb conditions, though perhaps best not overheated in summer, & can be increased slowly but steadily from seed or offsets. Its crocus-like flowers in spring have no equal in the purity & intensity of their gentian-blue. Hand-pollinated seed using different clones of the colour forms. . . . (10) **E**
- 2.940.011 : TECOPHILAEA CYANOCROCUS 'LEICHTLINI'** * A slightly paler blue form with a large white centre, considered by many to be the most beautiful variant. It is also the most vigorous & fertile form with us. . . . (10) **E**
- 2.968.500 : TRISTAGMA NIVALE** * Argentina, Neuquen, Lacar, Cerro Chapelco. 1680m. Among igneous rocks on exposed, stony slopes. (Distinctive, curled, fleshy leaves coil on the scree. Purple-black to green, tubular flowers on 15cm. stems.) . . . (10+) **D**
- 2.971.400 : TROPAEOLUM SESSILIFOLIUM** * Chile, Reg. Metro., Lagunillas. 2200m. Steep, open rocky slopes. (Now well established from our 1991 & 1994 colls. & not difficult in a scree-bed or the bulb-frame. One of the dwarfest in the genus. Erect or flopping, 20-30cm., branching stems, tiny, lobed leaves & white or pale lavender flowers with orange-yellow centres.) . . . (5) **D**
- 2.971.810 : TROPAEOLUM TRICOLOR** * No data. A summer-dormant, tuberous-rooted climber with fascinating, complex flowers in scarlet, black, yellow & green. It grows up to middle altitudes in Chile but we find winter growth vulnerable; others report success outside in the UK. No trouble in a cold greenhouse, where it gives a long, arresting display in spring & early summer . . . (8) **C**

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Species from Southern Africa : Seeds from Jim & Jenny Archibald

We shall be listing the summer-growers in our next winter list. These are the species you may be able to grow in the open garden without too much trouble. Most of the great diversity of winter-growers in the W Cape need frost-free conditions under glass in the UK. While we list a few of these, we are mainly concerned with extending the range of temperature-hardy, high-altitude material available. We believe genera like *Daubenia* & *Romulea* will eventually take their place, in similar conditions, alongside *Crocus* & *Fritillaria*

3.105.510 : CYRTANTHUS BREVIFLORUS Lesotho. No further data. A summer-grower but seed of this genus is generally of short viability. This is our own 1997 seed from the stock originally introduced by Helen Milford & hardy in the UK. Though bulbous it is usually a plant of wet, peaty habitats. Arching stems carry pendant, yellow, tubular flowers. Harvested in August. (10+) **D**

A few winter-growers from the desert ranges

3.109.000 : DAUBENYA AUREA N Cape, Roggeveldberge, W of Middlepos. 1700m. R.& R. Saunders coll. (Extraordinary Roggeveld endemic. A pair of oval leaves, flat on the ground with a stemless 'water-lily' head of brilliant scarlet between them. Slow from seed but perfectly temperature-hardy with us alongside the Mediterranean & SW Asian bulbs - same growth cycle.) (20+) **D**

3.254.810 : GLADIOLUS CARDINALIS * No data. A glorious species, endemic to a small area in the mountains near Worcester & Paarl in W Cape up to 1400m., where it hangs out its large scarlet flowers in midsummer, on moist cliffs near waterfalls or streams. Magnificent in our unheated greenhouse but successfully grown outside by several gardeners in S England & Ireland.) (15+) **C**

3.267.200 : GLADIOLUS MACULATUS subsp. MERIDIONALIS * No data. Winter-grower from sandy soils in the S Cape - for frost-free conditions. Elegant, narrow-leaved, wiry-stemmed to about 40cm. with large, clear salmon-pink flowers (15+) **C**

3.278.105 : GLADIOLUS STEFANIAE * S African cultivated seeds of this extraordinary winter-grower, flowering in autumn before the leaves. Described in 1972 & restricted to a tiny area in the Langeberg in W Cape. About 30cm. high with a few large flowers, scarlet with median white stripes on the lower segments. Frost-free but only barely so for this mountain-plant.) (10) **D**

3.279.710 : GLADIOLUS TRISTIS * A winter-grower comparatively hardy in much of the UK. The species is quite widespread in the winter-rainfall area of W Cape at up to 1800m. Large, fragrant creamy white flowers on stems of 50cm. or more.) (20+) **B**

3.700.200 : ROMULEA AMOENA N Cape, Bokkeveldberge, near Nieuwoudtville. 1300m. R.& R. Saunders coll. (Huge carmine to deep rose crocus-flowers, blotched purple-black in their throats. Should be as hardy & growable as most *Crocus* spp.) (20+) **C**

3.700.400 : ROMULEA ATRANDRA (var. *atrandra*) N Cape, Roggeveldberge, W of Middlepos. 1800m. R.& R. Saunders coll. (From the cold inland plateaux. Large flowers in intense magenta-rose, blotched with blue-black above the yellow centres.) (20+) **B**

3.701.800 : ROMULEA DIVERSIFORMIS N Cape, Komsberg, SE of Sutherland. 1800-2000m. R.& R. Saunders coll. (Very local in the desert-ranges of the Sutherland region. Clean, bright, buttercup-yellow flowers without dark internal markings.) (15+) **C**

3.703.400 : ROMULEA HIRTA N Cape, near Middlepos. 1800m. R.& R. Saunders coll. (Almost certainly temperature-hardy. Distinct, winged, ciliate leaves & pale yellow flowers, marked internally with a transverse brown band.) (20+) **B**

3.703.700 : ROMULEA KOMSBERGENSIS N Cape, Komsberg, SE of Sutherland. 1800-2000m. R.& R. Saunders coll. (Only recorded from the high Komsberg plateau. Big, rosy flowers, tipped with violet-blue & with a buttercup-yellow centre.) (10+) **C**

3.704.000 : ROMULEA LUTEOFLORA N Cape, near Middlepos. 1800m. R.& R. Saunders coll. (A plant of high, cold habitats, mainly in the Cedarberg & Bokkeveld. Big, brilliant-yellow flowers, strikingly blotched with mahogany-brown.) (20+) **B**

3.704.700 : ROMULEA MONTANA N Cape, S of Nieuwoudtville, near Moedverloor. 1300m. R.& R. Saunders coll. (From high in the Bokkeveldberge & Cedarberg. Buttercup-yellow flowers blotched with dark brown & feathered red-brown outside.) (20+) **C**

3.704.800 : ROMULEA MONTICOLA N Cape, near Moedverloor. 1300m. R.& R. Saunders coll. (Confined to the high plateaux of the Bokkeveld & Gifberg. Red-brown backed, golden yellow flowers, with deeper yellow centres.) (20+) **C**

3.705.500 : ROMULEA PEARSONII N Cape, Namaqualand, Kamiesberg. 1500m. R.& R. Saunders coll. (A Kamiesberg endemic, Lemon-yellow flowers, tinged or veined red-brown externally. Should grow high enough for temperature-hardiness.) (20+) **C**

3.706.110 : ROMULEA SALDANHENSIS * No data. From sandy clays near the Atlantic, N & S of Saldanha Bay. We have grown it unheated but this is safest frost-free. Big, bright-yellow flowers, darkly pencilled inside & marked brown outside.) (20+) **B**

3.706.800 : ROMULEA SLADENII W Cape, Gifberg, S of Vanrhynsdorp. 1000m. R.& R. Saunders coll. (Endemic to the sandstone of the Gifberg plateau. Very *Crocus*-like with its white, yellow-centred flowers, usually purple-stained externally.) (20+) **C**

3.707.300 : ROMULEA SYRINGODEOFLORA N Cape, near Middlepos. 1800m. R.& R. Saunders coll. (Endemic to the high plateaux from Sutherland to the Roggeveld. Long tubed, magenta-pink flowers, yellow-striped on dark-red externally.) (15+) **B**

3.707.500 : ROMULEA TETRAGONA (var. *tetragona*) N Cape, near Middlepos. 1800m. R.& R. Saunders coll. (In Section *Hirtae* but possibly not close to any other. Winged, hairy leaves & violet-rose to lilac-pink flowers with dark anthers.) (20+) **B**

3.707.750 : ROMULEA TORTUOSA subsp. AUREA N Cape, Komsberg SE of Sutherland. 1800-2000m. R.& R. Saunders coll. (Large, *Crocus*-like, fragrant, buttercup-yellow or almost orange-yellow flowers without dark markings.) (20+) **B**

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- 4.046.010 : ANEMONE TRULLIFOLIA *** China, Yunnan, Dali, Cang Shan. Ex SBEC 797. (A succession of ice-blue to white flowers from indigo stained buds on decumbent, branching 15-20cm. stems. A charming, recently introduced 'blue buttercup', which seems more accommodating than the old *A. obtusiloba patula*. Freshly collected, green seed for immediate sowing.) (8) C
- 4.082.100 : ARISAEMA ELEPHAS (*A. wilsonii*) *** China, Yunnan, Cangshan. 3200m. Ex E. Needham 1024. (Illustrated in the recent AGS Bulletin on Chinese plants (Vol.64, No.2, p.186), where Ron McBeath writes "one of my favourites...striking & handsome...reasonably easy to cultivate at Edinburgh." Mike Tucker, who has again produced this seed outside in Somerset, also finds it hardy so far, though it appears early. Large, trifoliate, rugose leaves, often flushed purple & margined with red. Elongated black-purple spadices snake out from hooded spathes striped with parallel purple & translucent white lines. 40cm.) (5) E
- 4.248.000 : CORYDALIS LATILOBA *** China, Yunnan, Diqing Pref., Zhongdian. 3278m. Moist tufa. Ex KGB 732 (Masses of golden flowers on short stems from tufts of blue-green foliage. Recommended by Henrik Zetterlund, who stresses that from this altitude "it will certainly be much hardier than *C. wilsonii*." Dry stored seed will give no problems in germination.) (15+) D
- 4.250.610 : DAPHNE GIRALDII *** No data. A beautiful, temperamental, deciduous shrub, about 60cm. high, from W China, in Shaanxi & Gansu, with terminal clusters of fragrant, rich yellow flowers in late spring. Seed from Pat Vlasto & Dinah Batterham (both in Dorset, UK). When we were in Dorset we could not grow it well! Can thrive in both acid sands & limy clays. (5) C
- 4.251.010 : DAPHNE TANGUTICA *** No data. A fine, evergreen shrub also from W China, about 1m. high, with clusters of fragrant flowers, rose-purple outside & lilac-tinged white inside. Close to *D. retusa* but the two are distinct enough in gardens. (5) B
- 4.340.002 : ERYTHRONIUM JAPONICUM (*E. dens-canis* var. *japonicum*)** Japan, Honshu, Fukushima Pref., near Shirakawa. (Sometimes included under *E. dens-canis* but a distinct enough plant, mainly distributed in the woodlands of the N & in Korea. The nodding, rich rose-purple flowers with deeper purple basal markings are at least twice the size of the European plant.) (15+) D
- 4.390.110 : FRITILLARIA CAMTSCHATCENSIS *** No data. A marvellous plant with stems of 30cm. or more, whorled with rich-green leaves, carrying nodding, thick-textured bells in darkest brown-purple. Distributed from Japan in a N Pacific arc through Sakhalin & Kamchatka into Alaska & Canada. Utterly hardy & quite easy outside in the UK in a cool situation. (20+) C
- 4.449.010 : HELONIOPSIS ORIENTALIS *** No data. A diminutive relative of *Veratrum* from the montane scrub of N Japan into Korea & Sakhalin. Rosettes of shiny, evergreen, strap-shaped leaves, in close hummocks, send up, in early spring, racemes of starry, purplish-rose flowers, opening on stems of about 10cm. & later elongating to 50cm. in this typical form. (30+) C
- 4.518.110 : LILIUM FORMOSANUM var. PRICEI *** Taiwan. 2600m. (A dwarf, alpine ecotype of this species with big, scented, white trumpets, purple-tinted outside. All cultivated stock appears to be derived from seed collected by W. Price in 1912 near "Arisan" on "Mount Morrison". Recorded as not exceeding 45cm. in the wild, it has remained dwarf (or dwarfer by selection) in gardens. Comparatively hardy in the UK, it can be flowered quickly from seed, if sown in gentle warmth in winter.) (20+) B
- 4.520.910 : LILIUM PHILIPPINENSE *** No data. Slender, elegant, 1m., grassy leaved stems with very long-tubed, horizontally carried, pure-white, scented trumpets, sometimes tinged green or brown outside. One of the most southern Asian lilies, from the mountains of Luzon in the N Philippines. Australian seed but recorded as hardy over several years in N England. (20+) C
- 4.522.220 : LILIUM SPECIOSUM var. CLIVORUM *** Japan, S Shikoku, Agawa river gorge. Damp shady cliffs. Ex a D. Elick coll. (From Don's type-locality coll. Truly sumptuous with gloriously scented, crimson-speckled flowers in late summer.) (10+) D
- 4.581.000 : PAEONIA OBOVATA** Russia, Sakhalin. (Last chance of refrigerated seed from this 1995 wild collection, of which there is currently no opportunity of arranging a repeat. We assume this will be from the pale-rose race, which we have never seen in cultivation & which is the only one we can find recorded from this island immediately N from Japan, & not from the white-flowered race, sometimes segregated as *P. japonica*. These are also supposed to differ in their stigmas & follicles. All this group, about 50cm. high, have beautiful, lobed foliage. A final opportunity to acquire seed from an obscure locality.) (6) E
- 4.581.500 : PAEONIA SUFFRUTICOSA subsp. ROCKII (*P. rockii*, *P. s.* 'Rocks Variety')** No (intelligible) data. 1996, wild-collected Chinese seed of this mythical tree-peony. The original introduction to western gardens was made by Joseph Rock with seed collected in 1925 from plants cultivated at the Choni lamasery in Gansu at 2600m., where it had first been seen by Farrer, but it has since been recorded growing wild in several remote areas of Gansu, Shaanxi & Hubei. There would appear to be some degree of variation in foliage between wild colonies but the huge flowers, "refulgent as pure snow and fragrant as heavenly roses" are always "with a heart of gold, each stainless petal flamed at the base with a clean and definite feathered blotch of maroon." (5) F
- 4.581.600 : PAEONIA VEITCHII var. WOODWARDII *** No data. wide, dense clumps of shiny green, deeply cut foliage & slightly drooping, bowl-shaped flowers, usually in soft rose-pink. From up to 3000m. in SW China & excellent in the UK. (8) C
- 4.881.900 : TRILLIDIUM GOVANIUM *** Pakistan, Hazara, Kahgan valley, above Shogran Forest Resthouse. 2670-3050m. Ex SEP 264 (From a western coll. of this Himalayan *Trillium* relative (you can include it in *Trillium* if you wish), which extends from around here E to Bhutan. Stems 30cm. or less high carry a purple-tinged yellowish, greenish or brownish flower with narrow segments, followed by a purple fruit. Like other *Trillium* spp. should germinate if kept long enough at about room-temperature - or give second-year germination if kept at outdoor temperatures. See comments under the American species.) (15+) D

- 5.070.105 : ASTELIA BANKSII** New Zealand, Mercury Island (NW of Coromandel Peninsula). T. Hatch coll. May, 1997. (A distinct island race discovered by Terry. Females with spectacular clusters of red-purple fruits after the 50cm. flower panicles. Clumps of arching, 1m. high, peeling, silver-scaled leaves, white beneath. Maybe possible outside in the mildest SW of Britain.) (20+) C
- 5.125.000 : BLANDFORDIA PUNICEA** (*B. marginata*) Tasmania, South Bruny Island, Jetty Beach. M. Harvey coll. (Hardest member of this spectacular Australian genus in *Liliaceae*. No trouble in sandy, peaty soil in our unheated greenhouse. Tufts of narrow, leathery, dark leaves & racemes of up to 25, tubular flowers, in scarlet tipped with orange-yellow. About 60cm.) (30+) C
- 5.250.050 : CLEMATIS ARISTATA** Tasmania, Mt. Wellington foothills. M. Harvey coll. 21.1.97 (A comparatively hardy climber, found up to about 700m. on Mt. Wellington, where "its cascades of creamy blossoms are a delight.") (20+) B
- 5.250.055 : CLEMATIS ARISTATA X GENTIANOIDES *** A few seeds of the hybrid with the other endemic, 30cm. high, herbaceous species. We are uncertain whether this will produce 'even' seedlings or a range of variation. (10+) C
- 5.250.200 : CLEMATIS CUNNINGHAMII** New Zealand, Little Barrier Island (in Hauraki Gulf, W of Northland coast). 200m. Volcanic scoriae. T. Hatch coll. 21.1.97 (An elegant, intriguing species with soft-green, scented flowers.) (15+) C
- 5.252.200 : CLEMATIS PANICULATA** (*C. indivisa*) New Zealand, d'Urville Island. 600m. Exposed, ultramafic rocks. T. Hatch coll. 5.1.97 (A very beautiful, vigorous, evergreen, New Zealand endemic climber, found in both main islands. Big panicles of unisexual, white flowers, up to 10cm. across with pink anthers on male plants. Marginally hardy in the UK but worth protecting.) . . . (15+) B
- 5.300.100 : DIANELLA TASMANICA** Tasmania, Cockle Creek. M. Harvey coll. (A fine *Phormium*-relative from moist woodland hardy in the UK in a sheltered, shady place. Running tufts of leathery, bright-green foliage about 1m. tall with panicles of pale-blue flowers, which later develop into the most striking, glossy, violet-blue berries.) (15+) C
- 5.305.000 : DIPLARRENA LATIFOLIA** Tasmania, Mt. La Perouse, Moonlight Ridge. M. Harvey coll. 3.4.97 (Tall, Tasmanian alpine endemic in *Iridaceae*. White *Moraea*-like flowers, marked with yellow & sometimes purple. Hardy in the UK.) . . . (20+) C
- 5.320.500 : DRACOPHYLLUM MILLIGANII** Tasmania, above Strathgordon. High moorland. M. Harvey coll., 15.4.97 (One of two Tasmanian endemics in this Australasian genus of the *Epacridaceae*. A clump-forming shrublet, usually about 30cm. high, with reddish stems & bracts, among which the clusters of white flowers appear. Will be hardy in the UK in moist peaty soil.) . . (30+) D
- 5.421.050 : GEUM TALBOTIANUM** Tasmania, Mt. Sprent above Strathgordon. 1200m. Shaded crevices & between boulders in summit area. M. Harvey coll. 15.4.97 (Only known from a few small colonies on the tops of a few mountains in cold, wet, windy SW Tasmania, where it "often ascends vertical cracks in rocks for several metres". Ken Gillanders writes that it "must rank as one of our most beautiful and difficult alpine plants." Clumps of wrinkled, kidney-shaped foliage, matted with hairs above & below, send up 15cm. stems with large, pure-white flowers, 5cm. across, "the outer rows of stamens being reddish brown and greatly enhancing the flower." Definitely a plant which should be grown shaded, outside in UK summers - alpine-house in winter.) (5) F
- 5.730.700 : PATERSONIA FRAGILIS** (*P. glauca*) Tasmania, Cockle Creek. M. Harvey coll. (A Tasmanian coll. of the one species in this attractive genus of the *Iridaceae*, which is near-hardy in the UK. Iris-like clumps of foliage & purple-blue flowers opening flat with 3, showy segments. About 30cm. high, this should succeed in mild parts of the UK. No trouble if protected.) . . . (20+) C
- 5.735.000 : PELARGONIUM AUSTRALE** Tasmania, Rheban Beach, North Point. Cliffs. M. Harvey coll. 21.2.97 (An Australasian species, about 30cm. high with little, downy leaves & umbels of up to 25, rose-pink flowers, marked with crimson.) (5) D
- 5.820.050 : RICHEA ALPINA** Tasmania, Mt. Sprent. 800m. Wet, boggy, meadow. M. Harvey coll. 15.4.97 (About 90cm. high & appears to be this recently described high-altitude species but Marcus points out that it may be a dwarf form of *R. pandanifolia*, (though it seems to have a differently structured inflorescence). The genus *Richea* is quite small & almost wholly Tasmanian. It is in *Epacridaceae* but some resemble *Cordyline* in their foliage. These colls. are from considerable altitudes.) (30+) D
- 5.830.200 : RICHEA PANDANIFOLIA** Tasmania, Hartz Mts. M. Harvey coll. (The tallest of the genus, up to about 9m. high with heads of arching, 1m. leaves. May be possible in milder areas of S & W UK, certainly in much of California & NZ.) (30+) B
- 5.830.300 : RICHEA SCOPARIA** Tasmania, Mt. Field, Tarn Shelf. M. Harvey coll., 1997 (Ascending to over 1300m. & of proven hardiness in the UK - it grows well on the rock-garden at the RBG Edinburgh. Most British stock seems to be derived from the H.F. Comber coll. of 1930. He describes it forming wide dense hummocks about 1m. high in exposed montane sites, the flowers varying in "white, pale or deep pink, red or maroon" close-packed into stiff, terminal racemes. Low-nutrient, acid soil for all.) . . . (30+) C
- 5.830.350 : RICHEA SPRENGELIOIDES** Tasmania, Mt. Field, Tarn Shelf. M. Harvey coll., 1997 (Another dwarf, spreading, montane plant, under 1m. high. Globular, reddish flower-heads. This should be as hardy as the preceding.) (30+) C
- 5.998.000 : XERONEMA CALLISTEMON *** New Zealand, Hen Island (W of Northland coast). (A really extraordinary member of the *Liliaceae*, only known from here & Poor Knight's Island, where it grows, wind-blasted with sea-spray, as a semi-epiphyte on volcanic scoriae. It must be grown frost-free in a well-drained, low-nutrient, lime-free medium. When we last listed seed about 10 years ago, several British gardeners told us they were growing it without too much trouble, so it is by no means impossible even if its spectacular sprays of brilliant red flowers remain incredible.) (30+) C

While we aim primarily to offer you seeds either from the wild plants themselves or from cultivated plants grown from wild seeds, we derive much pleasure in our own garden from cultivars which have been selected from the species or are of hybrid origin. Many are named clones and it is essential that vegetatively propagated stock is obtained from these but with two of our favourite genera, *Cyclamen* and *Helleborus*, sowing seed from selected parents is the best way to propagate them. Both of these germinate at low-temperatures & are best sown before winter. The species will be found in the appropriate geographical sections. Those listed here are too far removed from wild plants to be included in there. We also list seed from one or two other hybrids which should yield some worthwhile children.

6.027.900 : ALSTROEMERIA LIGTU HYBRIDS Thriving in British gardens from Cornwall to Aberdeen - even here in our cool, wet garden. Every shade from pink to orange, flame & biscuit. By all accounts, derived from *A. ligtu* subsp. *simsii* (coll. by Clarence Elliott in 1927 as *A. haemantha*) & *A. ligtu* subsp. *incarnata* (coll. by Harold Comber in 1926 as *A.l. angustifolia*). The Comber plant was actually much more likely to be *A. presliana*, explaining the dwarf, deep pinks which sometimes appear.) (20+) **A**

Cyclamen coum : most exquisite of hardy winter-flowers

There are few hardy winter-flowers more endearing than little *C. coum*. It may be a little more temperamental than *C. hederifolium* but it is especially suited to British conditions, as it resents being too hot & dry in summer. A few years ago, it appeared to us that the *C. coum* stocks in general circulation were going to end up as pale pinks with patterned foliage. There seemed to be few sources for the different colour & leaf

variants. The plants with glossy or mat, plain dark-green foliage, which used to circulate as 'the true' *C. coum* (especially the old dark red form, of which we have not yet got sufficient stock) were actually becoming rather scarce. All the following are from selected parents - all are botanically *C. coum* subsp. *coum* but they may vary a little from seed though they will be more reliably like their parents than most hybrid Hellebores.

- 6.360.002 : CYCLAMEN COUM - PLAIN LEAVES, PINK FLOWERS** (15+) **B**
- 6.360.003 : CYCLAMEN COUM - PLAIN LEAVES, WHITE FLOWERS** (15+) **C**
- 6.360.004 : CYCLAMEN COUM - PLAIN LEAVES, ALL COLOURS** (15+) **B**
- 6.360.006 : CYCLAMEN COUM - PATTERNED LEAVES, PINK FLOWERS** (15+) **B**
- 6.360.007 : CYCLAMEN COUM - PATTERNED LEAVES, WHITE FLOWERS** (15+) **C**
- 6.360.008 : CYCLAMEN COUM - PATTERNED LEAVES, ALL COLOURS** (15+) **B**
- 6.360.049 : CYCLAMEN COUM - SELECTED PATTERNED LEAVES** From Jim Almond - some good forms here. (15+) **C**
- 6.360.050 : CYCLAMEN COUM - SILVER & PEWTER LEAVES** From pale-pink & white-flowered, silvery-leaved forms, including those circulating as 'Blush', white-flowered 'Maurice Dryden' and bicoloured 'Tilebarn Elizabeth' (15+) **D**

Cyclamen hederifolium : hardy and reliable with beautiful foliage

- 6.364.050 : CYCLAMEN HEDERIFOLIUM 'APOLLO STRAIN'** Derived from seed, given to us by Ken Aslet from the original 'Apollo' selected by E. A Bowles as the clone with the most outstanding foliage. Intricately silver-patterned leaves, often pink-flushed when young. These leaf-forms need selection when grown from seed - we have seen plants labelled as this which bear no resemblance to the original. It is a problem - we don't like using these names but how else can they be distinguished? (15+) **C**
- 6.364.051 : CYCLAMEN HEDERIFOLIUM 'WHITE APOLLO'** (also now distributed as 'Artemis') From white-flowered plants with similar leaves to 'Apollo'. Seed from Dave Hoskins who originally selected & developed these whites. (15+) **D**
- 6.364.090 : CYCLAMEN HEDERIFOLIUM - PEWTER LEAVES** Leaves suffused centrally with a silvery mist. Nearest to the Phil Cornish 'Silver Cloud' leaf-form but with a broader, dark-green edge. Typical pink flowers in autumn (10+) **D**
- 6.364.140 : CYCLAMEN HEDERIFOLIUM 'SILVER ARROWS'** Long, narrow, silvered, arrow-head leaves. (10+) **D**
- 6.364.160 : CYCLAMEN HEDERIFOLIUM - SILVER LEAVES** From Jim Almond. Distinct from the preceding. (10+) **D**
- 6.364.161 : CYCLAMEN HEDERIFOLIUM - SILVER LEAVES, WHITE FLOWERS'** Similar foliage to preceding. (10+) **D**
- 6.364.180 : CYCLAMEN HEDERIFOLIUM - SCENTED FLOWERS** This is from plants originating from Tom Blanchard, John's father, and, if recollections are correct, collected near Thessaloniki in N Greece in the early part of this century. We must add we cannot smell the scent (but we cannot smell wild *C. persicum* scent either). Authentic seed from Dinah Batterham (who can smell it). She adds that this is a good deep pink with a fine leaf, so the nasally impaired should be well compensated. (10+) **B**

Hellebores : 1997 is an outstanding year for hybrid seed

We have been able to collect some top-quality hybrid hellebore seed this season. The vagaries of our weather combined to produce an ideal season for seed-set in our garden and constant trapping ensured the resulting crop was not consumed by field-mice and voles. The following range is from *H. x hybridus*, often referred to as *H. orientalis* hybrids, though many additional species are involved than this one. Ideally this should be sown, in the northern hemisphere, as soon as possible after ripening - see further comments earlier in this list.

HELLEBORE SEED FROM NAMED CLONES

Selecting seedlings is a very personal matter. 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." Many of these have never been distributed and it is unlikely that they ever will be. Exceptionally, we have enough seed from several to list them under the parents this year. 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. There is a reasonable chance some seedlings will be close to or better than their parent but 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.

- 6.564.005 : HELLEBORUS from 'ANDROMEDA'** An excellent large, bowl-shaped, crimson-purple with a slight, blue bloom. Bronze-tinged nectaries and cauline leaves. An extremely late-flowering plant, opening after all others here (15+) **D**
- 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 always home into (15+) **D**
- 6.564.020 : HELLEBORUS from 'COSMOS'** Greenish white bowls densely & evenly spotted all over the interiors with bright crimson. Rose-pink flushed, crimson-veined exteriors. Vigorous with rounded 'Ballard' flowers. A paragon. (15+) **D**
- 6.564.025 : HELLEBORUS from 'ELECTRA'** Eric Smith always thought highly of this seedling from 'Early Purple' (*H. atropurpureus* of gardens), often thought to be sterile. A not too special purple to us but interesting, vigorous, floriferous and early (15+) **C**
- 6.564.035 : HELLEBORUS from 'INCA'** Some *H. torquatus* influence in this slate-purple with dull, crimson-black cauline leaves. Fine, rounded flowers with yellow-green nectaries but not quite so vigorous here as we had hoped at first. (15+) **E**
- 6.564.040 : HELLEBORUS from 'KATINKA'** An *H. o.* subsp. *guttatus* hybrid like no other in colour. Parchment to antique ivory ground-colour with a zone of dull crimson spots. Like 'Inca', named by us in 1981 but never distributed. (15+) **E**
- 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**
- 6.564.070 : HELLEBORUS from 'SIRIUS'** One of Eric Smith's earliest seedlings, named in the 1970's, this remains a magnificent, vigorous clone. Large, green-tinged primrose-yellow flowers surrounded by a ruff of bright-green cauline leaves. (15+) **D**
- 6.564.080 : HELLEBORUS from 'TITANIA'** Jenny's favourite hellebore. A *H. torquatus* hybrid - in fact we have seen a wild plant in Montenegro, which was very similar. Little, rounded, cup-shaped flowers are creamy green inside but covered with tiny reddish dots outside to give a misty mushroom-colour. Opens its first flowers early on short stems, which elongate later. (15+) **D**
- 6.564.090 : HELLEBORUS from 'ZULEIKA'** Mega-*H. torquatus* flowers, symmetrical & cup-shaped, on stout stems but lacks the much-cut, deciduous foliage characteristic of this species & its hybrids. Red-purple with a blue bloom outside. Chalky green-white, flushed marginally with crimson & with a dense zone of tiny crimson speckles, inside. Pale-green nectaries. (15+) **E**

SPECIAL 1997 COLLECTION OF SEED FROM NAMED CLONES

Five packets of seed : from 'Cassandra', 'Cosmos', 'Electra', 'Orion', and 'Titania', as listed above at a list price of £16.50 or \$24

For only £12 or \$18

A : \$2.00 ; £1.50 ; DM4,- ; FF13,- C : \$4.00 ; £2.50 ; DM6,- ; FF21,- E : \$7.00 ; £4.50 ; DM12,- ; FF40,-
 B : \$3.00 ; £2.00 ; DM5,- ; FF17,- D : \$5.00 ; £3.50 ; DM9,- ; FF30,- F : \$9.00 ; £6.00 ; DM15,- ; FF50,-

HYBRID HELLEBORE SEED IN COLOUR CATEGORIES

- 6.564.100 : HELLEBORUS - FROM BLUE & BLACK-FLOWERED HYBRIDS** A mixture of seed from Helen Ballard's superlative, bowl-shaped inky-black clone, 'Philip Ballard', seedlings from this and from Will McLewin's blue-blacks. . . . (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 the characteristic *H.o.* subsp. *guttatus* basal zone of maroon or crimson speckles, which in some cases bleed together. (10+) **C**
- 6.564.140 : HELLEBORUS - FROM PINK-FLOWERED HYBRIDS** Good clear-pinks, mainly from Will McLewin (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**
- 6.564.160 : HELLEBORUS - FROM SPECKLED HYBRIDS** From what Eric Smith used to categorize as 'Galaxy Strain', all along the lines of 'Cosmos' - white or greenish white, speckled all over with tiny crimson dots in varying density (15+) **C**
- 6.564.170 : HELLEBORUS - FROM H. TORQUATUS HYBRIDS** From hybrids like 'Ariel', 'Miranda', 'Pluto', 'Titania' & 'Zua', close to or derived from *H. torquatus*. Mostly with smallish, early, cup-shaped flowers & much-cut, deciduous foliage. (15+) **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**
- 6.564.200 : HELLEBORUS - FROM HYBRIDS OF ALL COLOURS** From purple, cream, pink & speckled clones. . . . (20+) **C**
Extra large packets of seed from hybrids of all colours. (80+) **F**

A COLLECTION OF HELLEBORE SEED IN COLOUR CATEGORIES

Six packets of seed (listed at £15 or \$24) : from purples, creams, speckled, *H.o. guttatus* types, 'Zodiac-types' and *H. torquatus* hybrids

For only £10 or \$15

-
- 6.564.500 : HELLEBORUS X STERNII 'BLACKTHORN STRAIN'** For many years, nurseries such as Bressingham distributed seedlings of this hybrid between *H. argutifolius* & *H. lividus*, which were virtually indistinguishable from the former parent. Robin & Sue White assiduously selected towards *H. lividus* to produce an outstanding group of distinct character and considerable vigour & hardiness, which comes very evenly from seed. It will vary but expect plants of compact habit with leathery, grey-green, pale-veined, evergreen foliage, purplish below, & large clusters of pink-flushed, pale-green flowers in late winter. (20+) **C**
- 6.575.500 : IRIS BUCCHARICA HYBRID** A growable juno, given to Norman Stevens as a bicoloured form of *I. orchioides*, Norman thinks it likely to be an *I. bucharica* hybrid. Winged, yellow falls & cream-white standards. For the bulb-frame in UK. . . . (10+) **B**
- 6.575.600 : IRIS MAGNIFICA X WILLMOTTIANA** First generation hybrid seed from Alan McMurtrie (Ontario, Canada), who is engaged in an ongoing programme of Juno hybridisation to produce more amenable, garden-plants. See the section dealing with European & W Asian species for details of the parents. Seedlings should be possible in a raised bed outside in the UK (8) **C**
- 6.747.850 : PAEONIA SUFFRUTICOSA 'CHINESE HYBRIDS'** Cultivated tree-peony seed from China collected from a wide range of named hybrid clones : mainly doubles, in purple, pink, white & green. What might result from seed is unpredictable. (6) **C**

Our thanks to everyone for your help and support in our work.

While our main aim is to offer you seeds collected or grown by ourselves, a vast amount of help from our friends in Britain and abroad is always much in evidence in our lists. Collectors are mentioned in some instances but it is not possible to name sources in all cases. We are grateful to : John Andrews & Mike Broder, Stan Farwig & Vic Girard, Noel Gielegem, Jim & Georgie Robinett (all California, USA), Jim Almond (Shropshire, UK), Dinah Batterham (Dorset, UK), John Blanchard (Dorset, UK), Peter Chappell (Hants., UK), Alan Edwards (Surrey, UK), Don Elick (Japan), Terry Hatch (NZ),

Marcus Harvey (Tasmania), Dave Hoskins (Hants., UK), Melvyn Jope (Surrey, UK), Will McLewin (Cheshire, UK), Tom Norman (Dorset, UK), Jimmy Persson & Henrik Zetterlund (Sweden), Bob Reid (Falkland Islands), Janis Ruksans (Latvia), Rachel & Rod Saunders (South Africa), David Stephens (Surrey, UK), Norman Stevens (Cambridge, UK), Lyn & Len Toms (Dyfed, UK), Mike Tucker (Somerset, UK), Bob & Rannveig Wallis (Dyfed, UK), Peter & Penny Watt (Hants., UK). Our apologies to anyone omitted. Sincere thanks to all and to all our customers for continuing to support our work.

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B : \$3.00 ; £2.00 ; DM5,- ; FF17.- D : \$5.00 ; £3.50 ; DM9,- ; FF30.- F : \$9.00 ; £6.00 ; DM15,- ; FF50.-