

Picnic in Iraq : pass between Daraki & Nowsud, 2500-2600m.

Paul Furse had no problems driving to Marivan on the Iraqi border of Iranian Kordestan in 1962. By 1966, when we were there, insurgent Iraqi Kurds had just blown up a refinery in the oil-town of Kirkuk across the border. Iraqi government aeroplanes, bombing Kurdish villages, were not being too particular as to whether these were on Iraqi or Iranian territory. We tried to get out of Sanandaj on the Marivan road but were escorted back to the basement headquarters of SAVAK, the Shah's secret police, to be questioned by urbane young men in suits who spoke perfect English. We did not find the *Fritillaria straussii* we had hoped for.

By 2000, there were no problems with SAVAK nor indeed their successors and we drove from Sanandaj to Marivan and back in a day on an excellent surfaced road. While we made several *Fritillaria* collections, there was still no *F. straussii*. Nor indeed was there any certainty we had collected *F. crassifolia* subsp. *poluninii* nor the improbable *F. chlorantha* which Paul Furse claimed grew there. The fact that about half a dozen different *Fritillaria* species appear to occur within the area made it essential to have another look at it in 2001.

This year we stayed in Marivan. It was a nostalgic visit for our Tehrani driver, Bahram, who, in his youth, had spent a week in jail there, while smuggling a car into Iran from Iraq. It is a vibrant town where shaggy-turbaned Kurds clad in baggy black ("We're really into boiler-suit country now," said Norman) jostle with slick young street-touts in trainers selling whisky miniatures (you can buy a litre of the real stuff for half the price it is in Britain). After a memorably uncomfortable night in what could be called 'less than basic' accommodation, we set off south to attempt to reach Per Wendelbo's Iranian locality for *F.c.* subsp. *poluninii*. Per visited this area during a more peaceful period when he was botanical adviser to the new Ariamehr Botanical Garden between 1974 & 1976.

Shortly after we left the main road, we hit the first check-point. Our passports were collected and after a long delay we were summoned to the officer in charge. "Tell him we only want to look for a little flower," I said. "No, no, no," said Bahram, "Don't mention flowers. I know these people. I'll tell him what he wants to hear." After much discussion our passports were returned. "He says we can go but don't walk too far from the road," We passed through subsequent check-points without trouble. "What did you say to the officer back there?" I asked. "I said you wanted to go for a picnic," said Bahram. "As he was

in charge of security for the area, I read his name from some papers on his desk and told the other check-points that he had said that they had to let us through."

After the little village of Daraki the loose dirt-road climbs steeply to a pass. Beyond we could see it descend to the valley of the Sirvan river & wind down that all the way to Nowsud. "This is the place. Pull in at the top," we shouted. Our 1962 British War Office map (useless for roads and place-names but still invaluable for contours) showed we were well above 7000ft. (2134m.) with a spot height near the top of the pass of 8654ft. (2638m.). It had to be the place. Well, if it is, we failed to find *F.c.* subsp. *poluninii*. We traversed the north-facing slopes : plenty *Puschkinia* but no frits. We combed the ridge-tops. We descended on the south-facing slopes. There were plenty bulbs : *Colchicum*, *Iris reticulata* and a *Fritillaria*, a 20cm. high plant with several capsules on a stem, which we felt had to be something to do with *F. straussii* but had alternate leaves. We should have been elated at finding an unidentifiable *Fritillaria* but we were frustrated at not finding what we sought. Below us we could see another check-point and beyond to the west a track hairpinned up an all but vertical cliff face. Every so often a pick-up would climb or descend it. We returned to Bahram and drove down to the check-point. We could not take our vehicle up the track but the soldiers were helpful. We left it with them and started walking. "There's a teahouse where you can get a beer just over the top," they shouted. We thought they were joking. We soon got a lift in the back of a pick-up which, after much pausing to cool the engine, pulled in above some derelict buildings at the top. From there we could look down thousands of feet to the sun-scorched cultivation of a vast plain. It was only then it dawned on us that we were in Iraq and we had been given a lift by a smuggler. "What are they running in and out?" I asked Bahram. "Alcohol and electronic parts for satellite receivers into Iran and food and medicines into Iraq," he said. "So much for the 'ethical foreign policy' of our government," I thought. We found no *Fritillaria* on the top of the mountain : only big fennels and masses of an *Ornithogalum* with the odd *Draba*, *Arabis* and *Lamium* in the rock crevices. We lurched back down at high speed, slewing through the last snow-patches, in the back of another smuggler's pick-up. "Did you like Iraq?" called one of the soldiers. We smiled and waved and drove back towards Marivan. It was now dusk and the check-points were unmanned.

Ordering from this list could not be easier

We shall accept your personal cheque in US \$ or £ sterling with one qualification : cheques in US \$ must be on a US bank account : charges on negotiating cheques on foreign accounts are very high in the USA (foreign banks can usually sell you a US \$ cheque drawn on one of their US branches). Please do not now send Eurocheques, which are no longer acceptable to UK banks. This is a temporary problem which will vanish with the full launch of the € in January, 2002. Next year we shall be pricing and accepting payment in the €. For the rest of 2001, while we price in DM and FF, we must ask customers not to send cheques in these currencies and especially not to use cheques on 'La Poste'. A bank draft or a Giro payment in sterling is used by many customers : you can price in DM or FF and have the current equivalent sent to us in £ sterling. Cash sent by registered letter is also no problem : round down to the nearest equivalent. We can usually refund in cash if we cannot supply an item. If fluctuations in exchange rates mean that it is advantageous to select a currency other than your own, please

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

PLEASE HELP US BY PRINTING YOUR NAME & ADDRESS CLEARLY.

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

New customers please understand

There may be a delay of some weeks before you receive your order. Most orders come in during the first few weeks after we send out a list. We receive orders very much faster than we can despatch them. If you feel your order is too long in arriving, check with your bank to find out if your cheque has been cashed : we do not pay in cheques until orders have been despatched. If it has been cashed, let us know immediately. 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 but please let us know if you have any difficulties at all in ordering seeds from us. We shall do our best to put them right and you can be assured that they will be resolved at no disadvantage to yourself. Postal services are, on the whole, very reliable. While we can make mistakes ourselves, we try to be just as reliable.

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

Our population reference numbers

The species in our lists are divided into five distinct geographical areas. Within these areas they run in alphabetical order. The numbers appearing before the names run in numerical order (which means we do not much like generic 'splitting'). These numbers refer to particular populations, mainly in the wild, though cultivated material without data is given a number also. Wild collections which cannot be fully identified will be found under a five-digit field number. This number refers to a collection made by us on a particular date only. Both sets of numbers are permanent. The use of population references is to avoid seed from the same population of plants being distributed under a proliferation of field-numbers. In some instances, the same population of plants can be found in our own field-notes under a multitude of field-numbers, when it has been visited by us in different years. When another collector is involved their name or field number is quoted in the data following the plant name. Identified species from Europe, W Asia & N Africa have six-digit numbers here, though they have an 0. before them on our records and you may sometimes see this on a label. The seven-digit numbers start with

a 1. for North America, 2. for South America, 3. for Southern Africa (S of the Sahara), 4. for Eastern Asia and 5. for Australasia. Garden hybrids and selections (with which we are not much concerned) start with 6.

Cultivated seed, which has become increasingly evident in our lists, as we build up stocks raised from seed of wild origin, is marked with an asterisk (*). The field-data given in these cases refers to the parents. Almost all cultivated seed was collected in 2001. Most is hand-pollinated but it will not necessarily produce similar-looking seedlings. As our parent-stocks represent samples of wild populations, seedlings will show the variation present in the wild. We attempt to preserve the genetic diversity of the wild plants not to impose our concepts on them. Nomenclature follows the basic floras, 'Flora Europaea', 'Flora of Turkey', 'Flora Iranica' 'The Jepson Manual', 'Flora of Japan' and so on with a little editing and updating, if this is felt to be relevant & helpful to gardeners. Collections from the republics of the former USSR are usually listed under the names supplied.

The Iranian drought continues

For the third year "the worst drought in Iran for thirty years" continues. Dry-climate floras are, however, resilient and have evolved to survive successive drier seasons. It does not mean there are no flowers and seeds just that their number and quality are poorer than during a more favourable period (such as must have existed during the 1960's). Even variations in spring weather between 2000 and 2001 resulted in different species being suited. This year was better for seed of the early-flowering crocuses and irises and very poor for tulips & fritillaries. In 2000, we covered much of north-west Iran. In 2001 we visited the north-east, along the Turkmenistan border towards Afghanistan, as well as returning to some western localities. Between the two journeys, we have now collected much material that has been lost to cultivation over past decades. This may not be evident from our current lists, as it is seldom possible to collect sufficient seed to list from wild plants

in poor seasons. Even in the more favourable 1960's and 1970's, it should be appreciated that very little was collected as seed. Most summer-dormant species were brought back as bulbs, corms, rhizomes and tubers. Seed collections recorded in field-notes were often only single capsules. It is expecting the highly improbable, if not quite the impossible, to anticipate large wild seed-collections from most *Crocus* species. Be assured, however, that such species as *C. almehensis* and *C. michelsonii* are now in our care. As are local endemics, like *Hyacinthus transcaspicus* and *H. litwinowii*, which had set no seed at all in Iran this year. We have representatives of all the Iranian irises of the *Oncocyclus* Section in cultivation again. The first cultivated seed from one, *I. urmiensis*, is in this list. More will follow from all such plants as our parent-stocks become established. In the meantime, there should be plenty to stimulate the most demanding gardener among the following species.

..... welcome to our August, 2001, list

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

Anemone biflora : the carmine windflower of the Zagros

- 160.303 : ANEMONE BIFLORA** Iran, Markazi, SW of Arak. 2300m. Exposed gravelly sites on summit ridge. (One of the finest and most striking plants of the Zagros Range, whose re-introduction is a priority for all those who remember it from the 1960's collections. In spite of a large number of tubers introduced under PF & BSBE numbers and a substantial 1966 seed-collection made by ourselves, it was not maintained in gardens, although a much-coveted potful grown by Molly Dawson appeared on AGS show-benches well into the 1970's. Expertise in the cultivation of summer-dormant species is now much greater, so we hope that we can once again see this marvellous plant in cultivation. Much-cut, rich-green foliage a few cm. high & 5-8cm. stems carrying "cup-shaped crimson-scarlet flowers an inch or more across & with a mass of golden anthers carried on crimson filaments" (Paul Furse, writing in 1965). After fertilization, the petals fold over the fluffy seeds & mature to coppery honey shades, until the growth dries, disintegrates & disperses. It had all blown away in 2000 and we could only salvage the last vestige of it this year.) . . . (10+) **F**
- 160.610 : ANEMONE CAUCASICA** * No data. A delightfully dainty little plant, more or less a much smaller, more delicate version of *Anemone blanda* with blue or white flowers in early spring. Distinguished not only by its more diminutive size but by its glabrescent involucre leaves. A plant of cliff-ledges and scrub-covered rocky slopes, centred on the Caucasus but extending into the Pontus Range of NE Turkey & the Elburz of N Iran, this is very seldom seen in cultivation. (20+) **C**
- 161.900 : ANEMONE PAVONINA** * Greece, Lakonia, between Areopoli & Githio. 100m. Edge of scrub. (The epitome of spring in Greece. Brilliant, pure-scarlet flowers with a white central zone (var. *ocellata*). Seed grown outside in Dorset, UK.) (20+) **B**
- 227.702 : BELLEVALIA DUBIA** * Italy, Sicily, Castel Mola near Taormina. Ex an A. Edwards coll. (The most striking of the European species in a selected form with particularly brilliant, ultramarine blue buds & young flowers. Electric.) (15+) **C**
- 227.770 : BELLEVALIA FORNICULATA** * Turkey, Agri, W of Eleskirt. 2300m. Hay meadows. (Outstanding with buds & flowers of penetrating turquoise-blue. Restricted to a few sites in the chilly Erzurum area, where its amazing blue mists the melt-water meadows. Choice but growable : maybe best outside in the UK. If in a pot, don't overdry it in summer.) (10+) **C**
- 227.840 : BELLEVALIA KURDISTANICA** * Turkey, Hakkari, Zab gorge at Bagisli. 1500m. Igneous scree. (10) **C**
- 227.900 : BELLEVALIA LONGIPES** * Turkey, Van, NNW of Baskale. 3000m. Open, stony slopes. (10) **C**
- 227.950 : BELLEVALIA LONGISTYLA** * Turkey, Van, E of Lake Van. 1800m. Heavy clay in moist, depression. (10) **C**
- 227.952 : BELLEVALIA LONGISTYLA** * Turkey, Van. Ex Leep & Pasche 7044 (10) **C**

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

- 228.081 : **BELLEVALIA PYCNANTHA** Iran, Kordestan, ESE of Sanandaj. 1800m. Among long grass in wet meadow. (Near *B. forniculata* but with heads of strangely crumpled bells in deep, inky blue-black. Quite easily grown in the UK.) (15+) **B**
- 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+) **B**
- 228.410 : **BELLEVALIA WEBBIANA** * No data. N Italian species near *B. romana* but with deep purple-brown flowers. (20+) **B**

Bellevaia : unidentified collections from Iran

- 16847 : **BELLEVALIA SP.** Iran, W Azerbayejan, between Agh Bolagh & Sangar. 1500m. Rocky limestone slope. . (10+) **B**
- 16930 : **BELLEVALIA SP.** Iran, Hamadan, NE of Assadabad. 2200m. *Astragalus*-steppe on slate & schist. (10+) **B**
- 16973 : **BELLEVALIA SP.** Iran, Lorestan, SE of Aligudarz. 2250m. Clay & shale slopes. (10+) **B**
- 17235 : **BELLEVALIA SP.** Iran, Kordestan, WNW of Sanandaj. 1700m. Loose, shale slopes. (10+) **B**
- 17257 : **BELLEVALIA SP.** Iran, Kordestan, SW of Daraki. 2500m. SW-facing limestone slope. (10+) **B**
- 17283 : **BELLEVALIA SP.** Iran, W Azerbayejan, S of Salmas. 1800m. Open stony ridge : crystalline rock. (10+) **B**
- 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**
- 232.101 : **BIARUM CARRATRACENSE** * Spain : no further data available. Ex M.Salmon & M.Fillan 235. (Most magnificent of this confusing genus of tuberous aroids. Huge maroon-black spathes open on the ground in early autumn.) (8) **D**
- 232.420 : **BIARUM TENUIFOLIUM** * No data. Leafless maroon-black spathes in autumn. Bulb-frame or alpine-house. . . (8) **C**
- 236.001 : **BONGARDIA CHRYSOGONUM** Iran, Kordestan, SW of Negel (between Sanandaj & Marivan). 1350m. Openings among *Quercus* scrub on shale. (Plants do not come more distinct than this weird, summer-dormant, tuberous-rooted member of the *Berberidaceae*, distributed sporadically from the E Aegean to W Pakistan. Glauous, basal, pinnatisect leaves & 50cm. high panicles of starry, yellow flowers, followed by inflated fruits. Temperature-hardy but needs a summer-rest in the bulb-frame.) . . (8) **D**
- 240.000 : **BRIMEURA AMETHYSTINA** * France, Hautes-Pyrenees, Vallee d'Ossoue. 1500m. Limestone. (More or less endemic to the Pyrenees. Like a dainty, miniature, 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+) **C**
- 298.120 : **CHIONODOXA FORBESII** * Turkey, Mugla, SE of Fethiye. 1100m. Under *Cedrus* on steep limestone slopes. (10) **C**

Colchicum : some small, spring-flowering Iranians

- 311.501 : **COLCHICUM BALANSAE** * Turkey, Icel, NE of Gulnar. 1200m. Pockets of red clay on limestone. (A robust, S Turkish endemic. White to purple-pink flowers in autumn from amazingly long-necked corms. Bulb-frame in the UK.) (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. 1000m. N-facing slopes. Ex a P. & P. Watt coll. (Distributed from S Europe into W Turkey. Heavily tessellated rosy purple, broadly bell-shaped flowers. Alright outside in the UK.) . . . (20+) **B**
- 311.800 : **COLCHICUM BOISSIERI** * Greece, Viotia, Parnassos. 1500m. Gravelly areas below *Pinus* & among *Daphne oleoides*. (A sweet little species forming long stoloniferous corms. Lilac-pink flowers in autumn, before the few linear leaves.) . . (10) **D**
- 313.010 : **COLCHICUM CORSICUM** * No data. A dwarf species from lowish altitudes in S Corsica. Lilac-pink flowers in autumn, followed by narrow, 10cm. high leaves. Reputedly uncommon in nature but easily grown & maintained in the UK. . . . (20+) **B**
- 314.300 : **COLCHICUM FREYNII** * Iran, E Azerbayejan, S of Jolfa. 1400m. Steep, stony slope. (A small species from the S Caucasus & NW Iran. White flowers, flushing to pink or rose-purple, in spring, before the 3 channelled, linear leaves.) (15+) **D**
- 314.603 : **COLCHICUM HUNGARICUM** * Croatia, Velebit Planina, Mali Halan. 800m. Exposed, gravelly areas on limestone. (A diminutive species flowering, as the leaves appear in very early in spring, with white or pale pink flowers.) (10) **E**
- 314.754 : **COLCHICUM KOTSCHYI** * Turkey, Gaziantep, W of Gaziantep. 850m. Limestone. Ex a N. Stevens coll. (Medium-sized, species, distributed E through Iraq & Iran. The white or pale-pink flowers often appear in late summer.) (20+) **C**
- 315.604 : **COLCHICUM MACROPHYLLUM** * Turkey, Mugla, between Marmaris & Bozborun. Ex V.Horton & N.Stevens 2146. (One of the most splendid of all *Colchicums* : pleated, *Veratrum*-like leaves ; purple-pink & white chequered goblets.) (10+) **C**

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

- 316.400 : COLCHICUM PARNASSICUM** Greece, Viotia, Oros Parnassos. 1600m. Among grasses on stony, limestone slopes. (Pale purple-pink autumn flowers followed by narrow leaves. Endemic to Parnassus & adjacent Elikon only.) (10+) C
- 317.500 : COLCHICUM ROBUSTUM** Iran, Khorasan, W of Bojnurd. 1200m. Open, stony slopes. (This & the following two colls. from NE Iran are from very different-looking plants, which would all appear to belong to the extremely variable *C. robustum* (a species of many synonyms : *C. hissarica*, *C. aitchisonii*, etc.).: "There are no discernible disjunctions in the pattern of variation....it is not really possible to distinguish infraspecific units," writes Karin Persson in her monograph. Illustrated beautifully in Wendelbo's 'Tulips & Irises of Iran' as "*Colchicum persicum*." Flowers in early spring : usually white, often with dark anthers.) . . (10+) C
- 317.501 : COLCHICUM ROBUSTUM** Iran, Mazandaran, NE of Shahrud. 2200m. Exposed stony slopes. (10+) C
- 307.502 : COLCHICUM ROBUSTUM** Iran, Mazandaran, ENE of Firuzkuh. 2000m. Among deciduous scrub. (10+) C
- 317.803 : COLCHICUM SPECIOSUM** Iran, Mazandaran, Kandavan pass, north side. 2500m. Among grasses in wet-flush. (A spectacular, robust species from the wet mountains along the Black Sea coast of NE Turkey across the Caucasus to the Caspian ranges of Iran. Huge, deep-pink goblets in autumn. The best one for outdoor cultivation in UK gardens.) (10+) B
- 318.003 : COLCHICUM SZOVITSII** Iran, Kordestan, ENE of Sanandaj. 1900m. Wet hay-meadow. (A large form of this variable, spring-flowering species, characteristic of seasonally wet montane habitats. Can be white or pale purple-pink.) (10+) C
- 318.355 : COLCHICUM TROODII** * Turkey, Hatay, between Antakya & Yayladagi. Ex R.& R. Wallis colls. (A neat, white to pink autumn-flowering species. In 'Flora of Turkey', Chris Brickell includes the Turkish plants which can be called *C. decaisnei* under *C. troodii*, described from Cyprus. This coll. is from near the type-locality for *C. decaisnei*.) (10+) C
- 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
- 17256 : COLCHICUM SP.** Iran, Kordestan, SW of Daraki. 2500m. Steep SW-facing limestone slope. (A slightly puzzling coll. from the high mountains on the Iraqi border. A robust plant with 3-4 very broad leaves, it could possibly be a form of autumn-flowering *C. persicum* or *C. kotschyi* or spring-flowering *C. kurdicum* or *C. szovitsii*.) (10+) C
- 331.810 : CORYDALIS INTEGR** (*C. wetsteinii*) * No data. "A splendid garden-plant...wholly hardy in the open", comment Liden & Zetterlund in their 1997 monograph. Distributed through the mountains of SE Europe, the Aegean islands & NW Turkey, this is a robust perennial with branching flower-stems up to 30cm. high. Beautiful, divided, very glaucous foliage & long racemes of spurred white or palest pink flowers strikingly set-off by the black-purple tipped inner petals (20+) C
- 331.950 : CORYDALIS NOBILIS** * No data. A long-lived, tap-rooted perennial about 50cm. high and rated by Liden & Zetterlund as "probably the most conspicuous & eye-catching species in the genus." Dense heads of yellow, black-tipped flowers rise above the lush, deeply divided, glaucous foliage in late spring. Distributed from the Altai to the Tien Shan, this is suited to severe continental climates. Seldom seen in UK gardens but perfectly growable. Dried seed normally stores well but it needs a significant cold period to germinate satisfactorily. Seedlings only reach the cotyledon stage in their first season.. (20+) C

Crocus : 2001 : a better year for UK seed at last

To generalise, which we do not usually like to do, *Crocus* is the most difficult in cultivation, among the main genera of 'bulbs' we list. Because a few crocuses are familiar garden plants in Europe, many gardeners assume all are easy and turn to the imagined challenges of *Fritillaria* or some of the *Narcissus* spp. Many of the 'species' listed cheaply in less specialised bulb catalogues are of hybrid origin or are clones, often untypical of the species as a whole & selected for mass production. If you want good reliable garden-plants, these are for you. For the

specialist grower, we are continuing 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 maintain quite a large number of corms. Seed-set is unpredictable. Seed-collection is also quite critical & troublesome. Seed of many will always be expensive & in short supply. Standard reference for the genus is Brian Mathew's model monograph 'The Crocus' (1982).

- 339.701 : CROCUS ADANENSIS** * Turkey, Adana, above Kurt Kalesi. Ex a N. Stevens coll. (Typically pale lilac-blue with a white throat, in spring. Related to *C. biflorus* & only found in this very small area but not too difficult to grow.) (10) D
- 339.860 : CROCUS ALATAVICUS** * Kyrgyzstan, Tien Shan. From several recent wild colls. (The most eastern member of the genus. with white flowers, often speckled purple-black outside, in spring. Not too easy to grow & increase.) (8) D
- 340.090 : CROCUS ANGUSTIFOLIUS** Ukraine, Krim, near Yalta. (Wild-collected seed of this charming, small, spring-flowerer, virtually confined to the Crimea & adjacent Ukraine but with a few disjunct eastern populations. Clear yellow to deep orange-yellow flowers, very variably striped with purple-brown outside, sometimes entirely bronze-purple. Dry summer-rest.) (10+) C

- 340.351 : CROCUS ASUMANIAE** * Turkey, Antalya, N of Akseki. 1200m. Limestone. (Limited to the oak-scrub around Akseki in the Taurus : the best of the saffron group in cultivation. Veined, palest lilac flowers with scarlet styles in autumn.) . (15+) **C**
- 340.510 : CROCUS BANATICUS** * No data. A lovely plant, like no other *Crocus* and in a subgenus of its own. Resents hot, dry conditions & is best grown outside in the UK in a cool, humus-rich site. Autumnal, bluish lilac to purple flowers have big, feathery, lilac styles, surrounded by wideopen outer segments and shorter, erect, inner ones, giving them an iris-like appearance. (10) **C**
- 340.800 : CROCUS BIFLORUS** (subsp. *biflorus*) * Italy, Basilicata, "between Trivigno & Arizi". 800m. Ex M. Oorgaard 95-36 (A rare plant in cultivation : the seldom-seen type-race. White flowers, striped with 3, brown-purple bands on the exterior.) (10) **D**
- 341.250 : CROCUS BIFLORUS** subsp. **ISAURICUS** * Turkey, Antalya, Irmasan Gecidi N of Akseki. 1500m. Stony humus under *Abies* over limestone. (Spring-flowering race endemic to the W end of the Taurus. In fine form here : variable in colour & markings. Usually lilac-blue with strong, purple feathering on the exterior. Attractive & satisfactory under glass in the UK.) (10) **B**
- 341.352 : CROCUS BIFLORUS** subsp. **MELANTHERUS** * Greece, Arkadia, S of Tripoli. (Endemic to the Peloponnese : the only autumn-flowering race of this diverse species. White with variable dark exterior stripes & striking purple-black anthers.) (10) **D**
- 341.456 : CROCUS BIFLORUS** subsp. **NUBIGENA** Turkey, Mugla, Gok Tepe N of Mugla. 1500m. Among sparse *Pinus* on limestone. N. Stevens coll. (Expect variable, mainly lilac, spring flowers not all with black-maroon anthers here.) . . . (10+) **C**
- 341.670 : CROCUS BIFLORUS** subsp. **PULCHRICOLOR** * No data. From various forms of this rich violet-blue, yellow-throated, spring-flowering race native to damp meadows in the cold, wet, NW corner of Turkey. Good outside in the UK. (15+) **B**
- 341.727 : CROCUS BIFLORUS** subsp. **TAURI** Turkey, Kayseri, N of Sariz. 1800m. Grazed turf. Ex D. Stephens 98-17. (The eastern race in this complex group, extending from Turkey into NW Iran & Armenia. Usually unmarked lilac flowers.) (10+) **C**
- 341.801 : CROCUS BORYI** * Greece, Messinia, S of Pisos. 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**
- 341.900 : CROCUS CANCELLATUS** (subsp. *cancellatus*) * Turkey, Icel, SE of Arslankoy. 1100-1450m. Among sparse conifers in clay over limestone. (The type-race from S Turkey into Israel. Scented, soft lilac-blue flowers in autumn.) (10) **C**
- 341.916 : CROCUS CANCELLATUS** (subsp. *cancellatus*) * No data. From the old commercial stock originating in S Turkey & grown as *C. cilicicus*. Given how temperamental some forms can be this can be a surprisingly good garden plant.. (8) **C**
- 341.927 : CROCUS CANCELLATUS** subsp. **DAMASCENUS** Iran, Kordestan, NW of Divandarreh. 2000m. Gravelly clay slopes. (Distributed from Israel to N Iraq & W Iran, whence it is little-known & reputedly variable, sometimes with white anthers. All races repay a hot, dry rest in summer, for this it is essential. Lilac-blue flowers, often basally veined outside with violet.) . . . (10+) **D**
- 341.970 : CROCUS CANCELLATUS** subsp. **LYCIUS** * Turkey, Antalya, NE of Hisarcandir. 750m. Stony clay in *Pinus* woodland. (A local SW Turkish race with yellow-throated, creamy white flowers & widely spreading, rich orange style branches.) (10) **D**
- 342.007 : CROCUS CANCELLATUS** subsp. **MAZZIARICUS** * Turkey, Burdur, W of Golhisar. 1150m. Among *Pinus* & *Quercus*. (Mainly SE European in its distribution, this race only enters Turkey in the SW corner. Veined lilac flowers in autumn) (10) **C**
- 342.050 : CROCUS CANCELLATUS** subsp. **MAZZIARICUS** No data. Interesting form from old cultivated stock. . . . (8) **B**
- 342.400 : CROCUS CANDIDUS** * Turkey, Canakkale, near Lapseki. Ex N. Stevens 2074. (A most distinct plant of very limited distribution on the low, scrub-covered limestones of the Asian side of the Dardanelles. Often with only one, sometimes two, very broad, dark, glossy leaves and pure-white flowers, usually just misted outside with blue-grey, in early spring.) (8) **D**
- 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, Mazandaran, Caspian coast W of Chalus. Among scrub, in sand. (Beautiful, autumnal, yellow-throated, white to lilac-pink flowers. Quite hardy in the UK but seldom seen. It dislikes being hot & dry in summer.) . . (10) **E**
- 343.405 : CROCUS CORSICUS** France, Corsica, NW of Porto-Vecchio. c. 1000m. (Bright lilac flowers usually with purple-striped, buff exteriors, in late spring. A higher altitude plant, reaching 2300m., than the other Corsican species, *C. minimus*.) . (10+) **D**
- 343.600 : CROCUS CVIJICHII** * Greece, Imathia, Oros Vermio. 1500m. In turf under *Pinus*. (A very local, high altitude species, from where the Greek, Albanian & Macedonian borders meet. Scented spring-flowers in chrome-yellow to orange yellow.) (15+) **E**
- 344.610 : CROCUS FLAVUS** (subsp. *flavus*) * No data but the true wild plant : not the sterile 'Dutch Yellow'. Native to SE Europe into NW Turkey, its profuse fiery, orange-yellow flowers in spring make it one of the finest garden-plants in the genus.. (15+) **B**
- 344.630 : CROCUS FLAVUS** from 'LACTEUS' (syn. *C. lacteus*) * No data. From the old, long-cultivated stock, described in the early part of the 19th Century as *C. lacteus*, a cream coloured variant of *C. flavus*. Beautiful but a rather weak grower. . (8) **E**
- 344.990 : CROCUS GARGARICUS** (subsp. *gargaricus*) * Turkey, Mugla, Gok Tepe N of Mugla. 1500m. Heavy clay in openings among *Pinus*. (This type-race is only known from here & Kaz Da., far to the NW. The Ulu Da. race (*C.g.* subsp. *herbertii*) is the commonly grown one : this is only very recently in cultivation. It has no stolons & a coarsely reticulate tunic. It also seems quite tolerant of drying-off in summer. Very hardy & neat with rich orange-yellow flowers in spring.) (10+) **D**

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

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

- 345.200 : CROCUS GOULIMYI** * Greece, Messinia, S of Kalamata. 300m. In humus among stones, under *Quercus*. (Local in nature but easy under glass in the UK. Prolific, distinct & beautiful pale lavender flowers on very long tubes in autumn.) (10+) **B**
- 345.220 : CROCUS GOULIMYI var. LEUCANTHUS** * Greece, Lakonia, SW of Monemvassia. Ex an S. Keeble coll. (From type-locality material of this recently described, geographically isolated race, which is evenly & consistently white-flowered.) (8) **E**
- 346.409 : CROCUS KOROLKOWII** * No data. From a wide range of forms, derived from wild collections made by J. Ruksans & others in Uzbekistan and the adjacent republics. Varnished, pale yellow to deepest yellow flowers in spring, very variably marked outside with brown stripes, some with solidly mahogany-brown exteriors. Enjoys cold winters with a good summer rest. (8) **D**
- 346.705 : CROCUS KOTSCHYANUS** (subsp. *kotschyanus*) * Syria, Akra Dag, near Kasab. 800m. Scrub. Ex R. & R. Wallis 96-12 (Elegant, lilac flowers, with yellow-blotched throats, in autumn. Usually an excellent grower & increaser.) (10+) **B**
- 346.706 : CROCUS KOTSCHYANUS** (subsp. *kotschyanus*) * Syria, Slunfeh. 1450m. Ex R. & R. Wallis 96-18. (10+) **B**
- 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 the lovely central Anatolian race. Lilac, autumn flowers, beautifully veined with a darker shade. A choice plant, not so vigorous as the type-race but not at all difficult & seldom seen.) (10+) **C**
- 347.101 : CROCUS KOTSCHYANUS subsp. SUWOROWIANUS** * Turkey, Rize, Ovit Dag. 2600-3000m. Dryish, stony ridges. (Seldom seen in cultivation and not at all easy. An alpine plant from NE Turkey & Georgia adapted to considerable snow-cover in winter & dry but cold summers. Its creamy white flowers, usually delicately veined with violet, appear in late summer.) (15+) **D**
- 347.403 : CROCUS LAEVIGATUS** * Greece, Evia, SE of Karistos. 200m. Among scrub in open, stony areas. (Endemic to Greece & its islands. Very variable autumn & winter flowers in white to lilac with diverse purple markings outside.) (10+) **C**
- 347.421 : CROCUS LAEVIGATUS** * Greece, Crete, Mt. Vouvala. Ex an A. Edwards coll. (An exquisitely tiny (though not quite so small as an Omalos coll. we grow) white flowered form, sometimes with fine maroon-black feathering outside.) . . (10+) **E**
- 347.601 : CROCUS LONGIFLORUS** * Italy, Sicily, Madonie Nebrodi. Ex an A. Edwards coll. (Autumn-flowering from S Italy & Malta. Scented, pale to deeper purple flowers, often with dark veins on a buff ground outside. Quite easy under glass.) (10) **C**
- 347.800 : CROCUS MALYI** * Croatia, Velebit Planina above Karlobag. 500m. Among limestone boulders. (A splendid endemic of the stark limestones of the Velebit range, rising sheer above the Adriatic coast. Certainly one of the finest of all species with big, pure-white flowers with yellow throats in late spring. A good grower, said to be excellent outside in sun in the UK.) . (10) **C**
- 348.008 : CROCUS MEDIUS** Italy, Liguria, between Carcare & Ferrania. D.B. Stephens 98-47. (A very beautiful species allied to *C. nudiflorus* & *C. niveus*. Only known from a small area around the border of NW Italy & SE France, between 200m. & 1400m. Deep to pale lilac flowers, usually with darker, radiating lines, and much cut, scarlet styles in autumn.) (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**
- 348.806 : CROCUS NIVEUS** * Greece, Lakonia, N of Pirgos Dirou. c. 150m. N-facing bank. Ex D. Hoskins 98-2 & other colls in this area. (The exquisite pale lilac-pink & bicoloured forms : quite variable so expect some fine variations.) (10+) **D**
- 349.220 : CROCUS OCHROLEUCUS** * Lebanon : no further data : from several R. & R. Wallis colls. (Having lost the fertile wild stock we collected in Lebanon over 30 years ago and been unable to trace any other cultivated fertile stock, we are delighted to have these new colls. from Bob and Rannveig. Pure white flowers usually with orange yellow throats from late autumn into early winter. Centered on Lebanon but extending to SW Syria & N Israel. Quite easy & hardy but best under glass in the UK.) (10) **D**
- 349.305 : CROCUS OLIVIERI** (subsp. *olivieri*) * Greece, Arkadia, E of Tripoli. 750m. Ex a M. Harvey coll. (Spring-flowering & widespread (though, like many, rather local) at middle-altitudes through the Balkans & W Turkey. This type-race has bright orange-yellow flowers, usually without any exterior markings, other than some brown shading on the perianth-tube.) (10+) **C**
- 349.605 : 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**
- 349.820 : CROCUS PALLASII** (subsp. *pallasii*) * From several colls. made in SW Turkey & adjacent Aegean islands. Pale lilac flowers with feathery, scarlet style branches, in autumn. Like others in the *C. sativus* group, it enjoys a hot, dry rest in summer.) (8) **C**
- 349.930 : CROCUS PALLASII subsp. HAUSSKNECHTII** Iran, Kordestan, E of Sanandaj. 2000-2300m. Steep, stony slopes. (The seldom-seen race from W Iran & adjacent NE Iraq, distinct in its very deep red, club-like style branches. Pale lilac-blue flowers, usually with the segments notched apically, in autumn. Like all the saffron crocuses, it needs a hot, dry rest in summer.) . (8) **E**
- 349.961 : CROCUS PALLASII subsp. TURCICUS** * Lebanon, between Baalbek & Farnya, near Nabi Rhade. 2150m. Summit-plateau of pass. Ex C. Lovell & P. Bird 363 (Elegant, race : more pointed segments & corms with long, fibrous necks.) (8) **D**

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

- 350.211 : CROCUS PESTALLOZAE from BLUE FORM** * No data. Quite a strong-coloured form of this dainty, little species with bunches of small, neat, rounded blue-violet flowers with yellow throats, in early spring. Endemic to a comparatively small area around Istanbul in NW Turkey, this is usually white-flowered in wild populations. A good grower & a little sweetie. . . (10+) C
- 350.800 : CROCUS RETICULATUS** (subsp. *reticulatus*) * Croatia, Velebit Planina above Tucepi. 900m. Openings among scrub on limestone. (Local but widespread, spring-flowering species. Lilac, beautifully marked outside with very dark violet.) . . (10) C
- 350.809 : CROCUS RETICULATUS** (subsp. *reticulatus*) * Moldova. Ex J. Ruksans colls. (A variable, very vigorous stock originally from Janis Ruksans' selections. Expect large, pale blue flowers strongly striped outside with deep purple.) (10) C
- 351.000 : CROCUS ROBERTIANUS** * Greece, Ioanina, W of Metsovo. 600m. Leafsoil under *Quercus* & *Ostrya* scrub. (Pale to deeper lilac-blue with a frilly, orange style. Brian Mathew rates it "one of the best of the autumnal species.") (10) D
- 351.100 : CROCUS RUJANENSIS** * Yugoslavia, Serbia, Rujan Planina. 600m. Ex a N. Randjelovic coll. (Recently described spring-flowerer. In effect a northern, disjunct population of *C. sieberi* subsp. *sublimis*. Rich lavender-blue flowers with yellow throats. May be worth distinguishing by gardeners as it is vigorous & growable under glass & may prove good outside in the UK.) (10+) D
- 351.609 : CROCUS SEROTINUS** (subsp. *serotinus*) * Portugal. Ex M. Salmon 534. (Type race : lilac flowers in autumn.) (8) C
- 352.099 : CROCUS SEROTINUS** subsp. **SALZMANNII** * Spain, Granada, Sierra Nevada below Penones de San Francisco. 2300m. Turf in NW-facing depression. (A strongly stoloniferous race from alpine-turf. We came across it in 1970 but, other than recording its existence, no-one has thought it worth distinguishing. We have not seen any other quite like it but the *C. serotinus* group is more than a little complicated. Small corms with long, couch-grass-like stolons. Profuse, pale lilac flowers in autumn.) (15+) C
- 352.400 : CROCUS SIEBERI** (subsp. *sieberi*) Greece, Crete, Hania, Omalos. Ex M. Jope 95-46. (The type-race, endemic to Crete and very rarely seen in gardens. Flowers in spring, always basically white but stained outside with purple brush-marks & with an orange or deep yellow throat - the invalid name *C.s. var. heterochromus* was apt. A rather difficult snow-melt plant.) . (10) D
- 352.455 : CROCUS SIEBERI** subsp. **ATTICUS** Greece, Atiki-Pireas, Pendeli E of Athina. c. 800m. Ex an M. Harvey coll. (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
- 352.501 : CROCUS SIEBERI** subsp. **NIVALIS** * Greece, Messinia, Langadas pass. 1600m. Moist areas under *Pinus*. Ex D.M. Hoskins 95-10. (The subspecies differs from *C. sieberi* subsp. *sublimis* in its glabrous, rather than pubescent throat.) . (8+) E
- 352.550 : CROCUS SIEBERI** subsp. **SUBLIMIS** * Greece, Evia, Oros Dirfis. 1000m. Among bracken & in turf on open, limestone slopes. (From a type-locality coll. of this race from most of mainland Greece. Easier to grow than the Cretan type-race with lilac blue flowers with yellow throats as the snow melts in spring.) (10+) C
- 353.000 : CROCUS SPECIOSUS** (subsp. *speciosus*) * Turkey, Kayseri, N of Sariz. 1750m. Grazed turf on open slope. (A choice, delicate, local race from S central Turkey. Small, pale blue, strongly veined flowers with white throats.) (10+) D
- 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
- 353.205 : CROCUS THOMASII** * Croatia. Ex B. Mathew 7651. (Autumn-flowering & close to Greek *C. hadriaticus* but with lilac flowers. Native to S Italy & the limestones of the Adriatic coast-ranges, below 1000m. Needs a dry summer rest.) (10) C
- 353.413 : CROCUS TOMMASINIANUS** from 'PICTUS' * Though this species, actually a rather local plant in the Balkans and not at all well-known botanically, can be a (usually welcome) weed in some British gardens, some of its variants are more restrained. This distinct form with white tips to the lilac flowers is both striking & not at all widely available commercially. (15+) B
- 353.420 : CROCUS TOMMASINIANUS** from **A WIDE RANGE OF CULTIVARS** * Many richly coloured. (15+) B
- 353.600 : CROCUS TOURNEFORTII** * Greece, Rhodes. Ex an I. Barton coll. (A charming plant of the Greek islands. Ideal for the alpine-house. Lilac-blue flowers with yellow throats open flat & stay open at night during late autumn into winter.) . . (10+) C
- 354.002 : CROCUS VELUCHENSIS** * 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. Does well here in a pot but may be just as good outside.) . . (10+) B
- 354.205 : CROCUS VERNUS** (subsp. *vernus*) * Slovenia, near Novo Mesto. Ex W. McLewin 98-03. (The wild, central European ancestor of many hybrids. 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
- 354.409 : CROCUS VERNUS** subsp. **ALBIFLORUS** * Switzerland, Jura, Col du Marchzirug. 1400m. (Very much a snow-melt species from high-alpine turf. Usually with smaller, white flowers but sometimes purple or striped. Not easy to grow.) (15+) C
- 354.600 : CROCUS VERSICOLOR** * France, Alpes de Haute Provence, Col de la Colle St. Michel. 1400m. Stony, S-facing slope. (Endemic to SE France, just crossing into Italy. Elegant white or pale lilac flowers; delicately feathered outside, in spring. Usually quite late with us, like the related *C. malyi*, but in 1998 it flowered very early - it all depends on the winter weather) . . (10) C

Cyclamen : 2001 seed from some exciting variants

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. With help from friends, we have some exciting seed available this season. In particular, we are grateful to Bob & Rannveig Wallis for sparing seed from their outstanding collection based on wild material. Selected flower & leaf forms will be found at the end of the list. *C. hederifolium* & *C. coum* are reliable garden-plants but the majority can be grown to perfection, in the UK, only under glass, safest kept frost-free. All, including *C. rohlfianum*, 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 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 references are C. Grey-Wilson's monographs on the genus (1988 & 1997).

- 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
- 359.019 : CYCLAMEN CILICIUM** * No data. Mainly from R.& R.Wallis selections. (Dainty, autumn-flowering species from SW Turkey with pale pink flowers & small, rounded, marbled leaves. Easy & hardy in a well-drained, sunny site in the UK.) (15+) B
- 359.021 : CYCLAMEN CILICIUM f. ALBUM** Turkey, Antalya, N of Murtici to Akseki. Ex Frank & Koenen 82-10. From a pure white without a pink 'nose'. Dark, well-marked leaves. Usually comes surprisingly evenly from seed. (10) D
- 360.100 : CYCLAMEN COUM f. ALBISSIMUM** * Syria (Israeli Occupied Territory), Golan Heights near Mas'ada. (The recently introduced pure white form of *C. coum*, lacking the dark 'nasal markings' of previously cultivated whites. Rather thin-textured, round, unmarked, dark green foliage and big, broad flowers. Interesting not only in its distinct appearance but in its southern habitat. Because of the latter, as well as its rarity in cultivation, it will be best grown under glass in the UK for the present.) (8) E
- 360.602 : CYCLAMEN COUM : DARK NOSE ; WHITE FLOWERS** * No data. From an interesting race 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. Derived from wild material & labelled as one of the so-called 'Russian splits' (like *C. circassicum* or *C. adzharicum* or *C. abchasicum*), so we are reluctant to subsume it into the cultivated selections. You could 'key it out' to *C. parviflorum* but it does not match the description with its larger flowers & boldly patterned foliage. Especially striking in this white form, grown nearer eye-level under glass, where you can see the big purple-black blotch going back into the sinus.) . . . (10) E
- 361.009 : CYCLAMEN CRETICUM** * Greece, Crete, S of Kolimbari. Ex a M. Jope coll. (This member of the *C. repandum* group is not the easiest species to maintain and persuade to set seed in cultivation. It needs a lot of shade & is safest grown frost-free in the UK. Cordate, dull grey-green leaves usually with mottled bands of silvery grey. White flowers in spring.) (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

Cyclamen elegans : Iran 1966 to Iran 2001

Recent research indicates that at last this *Cyclamen* of the Caspian woodlands, placed under *C. coum* subsp. *caucasicum* & *C. coum* subsp. *elegans*, should return to specific status. Not an easy plant to grow, seldom setting much seed, it continues to be a rarity in cultivation. Exquisite, large pink flowers without a white 'nose' & with elongated, acute petals above pointed, silver-patterned leaves, more heart-shaped than in western *C. coum*. It must have protection in the UK & is best grown frost-free, cool in summer, when it should not be allowed to dry completely. Its peak flowering is in early winter, usually November in the UK, filling a gap in the *Cyclamen* season.

- 362.000 : CYCLAMEN ELEGANS** (*C. coum* subsp. *elegans*) * Iran, Mazandaran, S of Chalus. 20m. In humus & moss in wet *Fagus* woodland. (Maintained from our 1966 coll. by D. Hoskins, who is able to spare some seed this year.) (8) F
- 362.001 : CYCLAMEN ELEGANS** (*C. coum* subsp. *elegans*) Iran, Mazandaran, SE of Sari. 200m. In humus & moss in woodland. (This small, new 2001 wild coll. is from much further E than the above material established from our 1966 coll.) (8) F
- 362.020 : CYCLAMEN ELEGANS** (*C. coum* subsp. *elegans*) * Azerbaijan. No further data. From material derived from Moscow Botanic Garden as *C. elegans* & originally collected in the former Soviet Azerbaijan. Not quite the same as our colls. from further east on the Caspian coast of Iran but seems a little easier to grow & still has the characteristics of this distinct taxon.) . . (8) E

- 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
- 363.010 : CYCLAMEN GRAECUM** * Greece, Evia, between Aliveri & Amarinthos. 100m. Ex a D.M. Hoskins coll. . . (10+) C
- 363.019 : CYCLAMEN GRAECUM** * Greece, Arkadia, N of Sparti. Ex an R. & R. Wallis coll. (From a most distinct clone selected by Bob & Rannveig. Flowers with elongated, narrow petals & striking foliage with a silver central zone.) (10+) D
- 363.060 : CYCLAMEN GRAECUM subsp. ANATOLICUM** * No data. From several selections, many with superlative foliage, made in SW Turkey by Bob & Rannveig Wallis. Most forms of this Turkish race are delicately scented. (10+) D
- 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 &, of course, in size, shape & markings of the leaves. . . . (20+) B
- 363.100 : CYCLAMEN GRAECUM f. ALBUM** * Data as for 363.003. Pure white ex the original E. & R. Franke coll. . . (10) 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
- 364.009 : CYCLAMEN HEDERIFOLIUM** Greece, Lakonia, Oros Taigetos, Profitis Ilias. 1500m. Ex D. Hoskins 95-14. (15+) B
- 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
- 364.520 : CYCLAMEN INTAMINATUM** * No data. Distinct variant with dark, unmarked leaves, like a plain-leaved *C. coum*. Dainty, delicately veined, white flowers in early autumn. Usually a more enthusiastic grower than other forms of this. (20+) B
- 365.010 : CYCLAMEN LIBANOTICUM** * No data. Most sumptuous of the spring-flowering ones with large, pale-pink flowers, distinctively marked with crimson. We have seen it grown successfully outside in the UK but it is best under glass. . . (15+) C
- 365.520 : CYCLAMEN MIRABILE** * No data. A restricted SW Turkish endemic, mainly from R. & R. Wallis selections. Dark-green, rounded leaves, zoned with silver & often suffused with carmine-pink as they unfold. The autumnal, pink flowers, basally blotched with crimson, have corolla lobes with distinctly toothed margins. Temperature-hardy but needs a dry summer-rest.) . . (10+) C
- 366.500 : CYCLAMEN PERSICUM** * Lebanon, S of Tripolis. (From material we collected in the 1960's in the Lebanese hills, where it fills the dry-stone walls of abandoned terraces with a spring-profusion of white & pale pink, crimson-nosed flowers.) (15+) B
- 366.510 : CYCLAMEN PERSICUM** * Greece, Rhodes. Ex an E. Sewell coll. (From an excellent form, dwarfier & altogether more compact than usual. This flowers profusely and always excites attention when exhibited.) (10+) C
- 366.549 : CYCLAMEN PERSICUM** * No data. From R. & R. Wallis selections mainly made in W Syria. (15+) B
- 366.550 : CYCLAMEN PERSICUM** * No data. From a range of wild-forms of this parent of the over-bred, florists' strains. Elegant flowers, mostly in crimson-nosed, palest pinks, in spring, & foliage which rivals *C. graecum*. Best frost-free in UK. . . (15+) A
- 366.552 : CYCLAMEN PERSICUM f. PUNICEUM** * No data. R. Blount coll., possibly in Syria. Rich rose-pink. . . (10+) C
- 367.015 : CYCLAMEN PSEUDIBERICUM f. ROSEUM** * Turkey, Adana, near Dortyol. Ex ACW 664. (From pale pink forms, 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) E
- 367.980 : CYCLAMEN REPANDUM (subsp. repandum)** * No data. From R. & R. Wallis stock, now extremely variable, having absorbed many geographical races. Pale to deep pink with a wide range of foliage variation. The one for the garden. . (15+) C
- 367.990 : CYCLAMEN REPANDUM f. ALBUM** * The cultivated white forms of the type race of *C. repandum* seem to have originated from Corsica. Flowers are pure white without a pink nose. Produces a good number of white seedlings. . . (10+) E
- 368.000 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM** * Greece, Lakonia, Oros Taigetos, between Tripi & Langadas. 1000m. Leafsoil under *Platanus*. Ex D.M. Hoskins 93-17 & 93-20. (Foliage, speckled all over with white. Flowers of this & the following colls. are consistently the pale-pink with red noses to be expected in Peloponnesian *C. repandum*.) (10+) E
- 368.002 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM** * Greece, Lakonia, Parori near Sparti. 250m. Beneath *Quercus* and *Buxus*, in humus. Ex a W.K. Aslet coll. (Luminous soft-pink with well-speckled foliage.) (10+) E
- 368.003 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM** * Greece, Lakonia, Oros Taigetos, above Paleopanagia. 1400m. In humus under *Platanus*, *Abies* & *Pinus*. (Extremely high altitude coll. Sometimes with unspeckled foliage.) (10+) E
- 368.010 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM** * Greece, Lakonia, S of Kardamili. 30m. At base of cliff with *Scilla* & *Lithodora*. Ex D.M. Hoskins 93-8. (Selected low altitude coll. with superb leaves.) (10+) E
- 368.100 : CYCLAMEN REPANDUM subsp. PELOPONNESIACUM f. VIVIDUM** * Greece, Lakonia/Arkadia, Oros Parnonas. c.500m. (Extremely variable in foliage & flower-shape but in colour all are a deep, luminous carmine-pink.) (10+) E

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

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

- 368.200 : CYCLAMEN REPANDUM subsp. RHODENSE** * No data. A distinct enough island-race, endemic to Rhodes. Leaves irregularly splashed with greyish white & white (or very pale pink) flowers with pink 'noses'. Not a vigorous plant. . . (10+) E
- 369.000 : CYCLAMEN ROHLFSIANUM** * Libya, Cyrenaica, Benghazi to Jebel Akhdar. 200m. Among scrub in limestone pockets. (Pale to deep pink flowers with projecting cones of anthers in autumn. Beautiful rounded leaves. Must be frost-free.) . (10+) E
- 369.521 : CYCLAMEN TROCHOPTERANTHUM from WHITE FORMS** * Selections from R. & R. Wallis colls. of this spring-flowering SW Turkish endemic. Closest to *C. coum* but with foliage more like *C. cilicium* & with wide, honey-scented flowers with distinctively twisted lobes, maroon at the bases. From crimson-nosed whites but expect some pale pinks, as well. (15+) D
- 382.400 : DAPHNE GNIDIODES** * Turkey, Antalya, N of Akseki. 1500m. Limestone slopes. (Cream. Orange fruits.) . . (8) D
- 384.020 : DAPHNE MEZEREUM** * No data. Glorious shrub. Purple-pink flowers wreath the naked branches in spring. . (10) A
- 384.050 : DAPHNE MEZEREUM f. ALBA** * No data. White flowers followed by yellow fruits. Comes 'true' from seed. (10) B
- 385.450 : DAPHNE SERICEA** * No data. Grey-green leaves. Rosy pink, scented flowers & orange-red fruits. (10) C
- 414.005 : DIPCADI SEROTINUM** * Spain, near Bornos. Ex an R.& R. Wallis coll. (A strange bulb of sombre attraction, locally distributed in dry, rocky sites in SW Europe & NW Africa. In early summer, stems, about 30cm high, carry one-sided racemes of pendant greenish bells flushed with peach and brown shades. Seldom seen but not difficult in the bulb-frame.) (10+) C
- 424.127 : DRACUNCULUS VULGARIS (var. creticus)** Greece, Crete, W of Rodopos, Nopigia. M. Jope 2027. (A wild coll. from the Cretan form of this spectacular aroid, up to 1m. high, with pedately divided foliage & huge, fleshy, brown-purple spathes on maroon-spotted stems. This island race usually has the large divided leaves spectacularly marked with oblique silver slashes. Usually possible in the open garden in the S of the UK & arresting in a hot, dry site but safest in a bulb-frame in colder areas.) . . (8) D
- 471.909 : ERYTHRONIUM CAUCASICUM (E. dens-canis var. caucasicum)** Russia, Aibha near Sochi. A fresh Black Sea coast coll. of this representative of the *E. dens-canis* group extending E from here through the Caucasus and Talysh into the Caspian forests NW Iran. Mottled leaves & pink or white flowers in early spring. Not so accommodating as *E. dens-canis*.) . (20+) D
- 472.200 : ERYTHRONIUM SIBIRICUM (E. dens-canis var. sibiricum)** Russia, SE of Tomsk. (The eastern version of *E. dens-canis*, 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 white as well as pink. There is little information on it in nature & it is an obscure plant in cultivation.) (20+) D

Fritillaria : we maintain an outstanding range of seeds

Possibly the genus most esteemed by the more specialised of British bulb-enthusiasts at present. Most are not difficult to grow in standard bulb-frame conditions or, perhaps better, in pots in a well-ventilated, unheated greenhouse in the UK. Few, are easy in the open garden in Britain. *F. messanensis* subsp. *gracilis*, *F. pallidiflora*, *F. pontica*, perhaps *F. acmopetala* & certainly the native *F. meleagris* should be growable outside in most UK gardens. While specialists await a modern monograph

from Martyn Rix, it is possible that popular interest in this genus will have been stimulated by the recent publication of "The Gardener's Guide to Growing Fritillaries" by Kevin Pratt & Michael Jefferson-Brown. Some names in this book are not used here, as we generally follow the nomenclature of the Rix accounts in the standard floras for Europe, Turkey & Iran. "The Bulb Book" by Rix & Phillips provides a remarkably complete photographic record with brief, accurate notes.

- 490.000 : FRITILLARIA ACMOPETALA (subsp. acmopetala)** * Turkey, Antalya, Gullukdagi, NW of Antalya. 800m. Grassy & stony areas among scrub. (Round-shouldered, elegantly waisted bells, in yellow-green with brown central shading.) . . (15+) B
- 490.008 : FRITILLARIA ACMOPETALA (subsp. acmopetala)** * Syria, Djebel Nusairi. 950m. Ex R.& R. Wallis 96-24. (15+) C
- 490.009 : FRITILLARIA ACMOPETALA (subsp. acmopetala)** * Syria, N of Qneyeh. 310m. Ex R.& R. Wallis 96-8. . (15+) C
- 490.011 : FRITILLARIA ACMOPETALA from DARK FORMS** * No data but mainly derived from material collected by Bob & Rannveig Wallis in Kahramanmaras, SE Turkey. Comes fairly 'true' from seed & should produce some fine things. . . (15+) C
- 490.709 : FRITILLARIA ALFREDAE (subsp. alfredae)** * Lebanon, E of Beirut, Broumana. 750m. Ex R.& R. Wallis 99-02 (A difficult, smaller, more slender plant than the following. An extreme rarity in cultivation, existing only as one or two bulbs surviving from our 1966 coll. near Jezzín until Bob & Rannveig's recent, important new introductions from further N.) (10) F
- 490.800 : FRITILLARIA ALFREDAE subsp. GLAUCOVIRIDIS** * Turkey, Adana, above Hasanbeyli. 1100m. (15+) C
- 490.801 : FRITILLARIA ALFREDAE subsp. GLAUCOVIRIDIS** * Turkey, Kahramanmaras, N of Yenicekele. 600m. Openings in dense *Quercus* scrub under *Pinus*. (Seedlings raised from a single capsule we collected in 1994 have proved to be robust, vigorous forms of this most graceful & beautiful species : elegant, yellow-green flowers with a glaucous sheen. Endemic to this corner of Turkey near the Syrian border & replaced there by *F.a.* subsp. *platyptera*. Not difficult in a bulb-frame in the UK.) . . (15+) C

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

- 491.100 : FRITILLARIA ARGOLICA** * Greece, Argolida, near Ermioni. Ex an R. & R. Wallis coll. (Recently acknowledged taxon, supposedly a hybrid or intergrade between *F. graeca* & *F. rhodocanakis* & more or less intermediate in appearance.) (10+) **D**
- 491.101 : FRITILLARIA ARGOLICA** * Greece. Ex V. Horton 1415 (Originally collected as a hybrid between *F. graeca* & *F. rhodocanakis*, this appears to fit in here, though it is closer to *F. rhodocanakis* than to *F. graeca* or the 491.100 coll.) (15+) **D**
- 491.102 : FRITILLARIA ARGOLICA** Greece, Argolida, Poros. 200m. Uncultivated olive-groves. M. Harvey coll.) . . (10+) **D**
- 491.159 : FRITILLARIA ARIANA** No data. (Cultivated seed from Dave Hoskins of this little-known species in subgenus *Rhinopetalum*, growing in sandy steppe, sometimes even in unstable dunes, in W Afghanistan, just entering Iran and extending NW to near Ashkhabad in Turkmenistan. It can grow up to about 20cm. high with about 12, flat, horizontal, dark-centred, soft-pink flowers with deeply impressed nectaries. A very beautiful & desirable species but most unlikely to be easy to cultivate.) . (10) **F**
- 492.101 : FRITILLARIA BITHYNICA** * Greece, Samos, Ambelos. 700m. Under *Castanea* in leaf-soil on mica-schist. Ex a D.M. Hoskins coll. (Glaucous, yellow-green bells, yellower inside. The island, Samos & Khios, races are little-known.) . . . (15+) **C**
- 492.105 : FRITILLARIA BITHYNICA** * Turkey, Denizli, S of Denizli. 1700m. Sparse *Pinus* woods on limestone. Ex R. & R. Wallis 90-38. (Described as a good, dwarf, yellow form. Unwinged capsule but confirmed by Martyn Rix as *F. bithynica*.) . . (15+) **C**
- 492.106 : FRITILLARIA BITHYNICA** * Turkey, Mugla. Ex an R. & R. Wallis coll. (From a distinctly green form.) . . . (10+) **C**
- 492.200 : FRITILLARIA BUCARICA** * Tadjikistan, E of Duschanbe, Romit. Ex a N. Stevens coll. (From a particularly fine population of this very beautiful and distinct Central Asian species, distributed from NE Afghanistan into the Pamir-Alai at altitudes up to 2400m. Stems of about 30cm. carry 10 or many more, green-tinted, white, wide-open bells with dark-tinged nectaries. No trouble in the bulb-frame in the UK & a success with us in a large pot where it takes a lot of water when in growth.) . (15+) **C**
- 492.400 : FRITILLARIA CARICA** (subsp. *carica*) * Greece, Samos, Ambelos. 950m. Under *Pinus* on mica-schist. Ex a D.M. Hoskins coll. (One of the most charming of this group. Greyish leaves & dark nectaries inside its clear-yellow bells. .) (15+) **C**
- 492.401 : FRITILLARIA CARICA** (subsp. *carica*) * Turkey, Mugla, Gok Tepe. 1500m. Under *Pinus* on limestone. . . (10+) **C**
- 492.402 : FRITILLARIA CARICA** * Turkey, Burdur, W of Yesilova. 1280m. Loose serpentine talus of open slope. (A fine form, growing in a precisely similar habitat with the same serpentine-associates as *F. carica* subsp. *serpenticola*.) (10+) **D**
- 492.405 : FRITILLARIA CARICA** (subsp. *carica*) * Turkey, Mugla, SE of Fethiye. 1250m. Under *Cedrus* on limestone. Ex R. & R. Wallis 90-21. (An intriguing little greenish yellow and brownish yellow variant from Baba Dag.) (10+) **C**
- 492.700 : FRITILLARIA CAUCASICA** Turkey, Kars, W of Sarikamis. 2000-2200m. Heavy, peaty soil in open, stony areas of coniferous zone. (Not often seen in cultivation, the species extends from this cold NE corner of Turkey across Transcaucasia into NW Iran : it does not enjoy high summer temperatures. A fine thing with large, conical, glaucous purple-brown bells.) (10+) **E**
- 493.000 : FRITILLARIA CONICA** * Greece, Messinia, S of Pilos. 200m. Edge of *Quercus* scrub on open limestone slope. (One of the more robust in the group of E Mediterranean, yellow-flowered species. Up to 25cm. high with large bells & rich-green, glossy foliage. Extremely local in nature but not at all difficult to grow in the alpine-house or bulb-frame in the UK.) (15+) **C**
- 493.305 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Erzurum, Kop Dag. 1700m. Ex R. & R. Wallis 93-17. (The type race has a wide but very local distribution across Turkey from Denizli in the W to Agri 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 possibly the least easy to grow of those listed here.) (15+) **D**
- 493.307 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Maras, Ahir Dag. Ex R. & R. Wallis 93-25. . . (15+) **D**
- 493.308 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Maras, E of Kafarli. Ex R. & R. Wallis 92-35. (15+) **D**
- 493.309 : FRITILLARIA CRASSIFOLIA** (subsp. *crassifolia*) * Turkey, Agri, Tahir Dag. Ex an R. & R. Wallis coll. . . (15+) **D**
- 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, Kordestan, S of Salmas. 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**
- 493.507 : FRITILLARIA CRASSIFOLIA subsp. KURDICA** * Turkey, Hakkari, Esendere. 1700m. Ex a Z. Zvolanek coll. (From right against the Iranian border and showing a range of variation somewhat similar to the population 493.503.) (15+) **C**
- 493.515 : FRITILLARIA CRASSIFOLIA subsp. KURDICA** * Iran, East Azerbayejan, SW of Ahar. 1820m. Montane steppe. (Listed in 2000 under the field-number 16773) (A distinct eastern development of the variable *F. crassifolia* complex. Found in the Tabriz area & described as *F. grossheimiana* & *F. karadaghensis*. A fine dwarf plant with big, yellow and brown bells.) (10+) **E**
- 494.000 : FRITILLARIA DAVISII** * Greece, Lakonia, NW of Pargos Dirou. Low, limestone hills. (Endemic to the S tip of the Mani peninsula & close to *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, it has proved to be one of the easiest in cultivation.) (15+) **B**

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

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

- 494.400 : FRITILLARIA DRENOVSKII** * Greece, Drama, Falakro above Volokas. 1500m. Among sparse *Pinus* in subalpine meadow. (One of our favourite species. Slender & elegant, with thin, greyish leaves on 15-20cm. stems. Narrow brown bells, varying in this site from dark chocolate to honey-brown shades. Endemic solely to the Greek-Bulgarian border-ranges.) (15+) E
- 494.604 : FRITILLARIA EDUARDII** * Tadjikistan, E of Dushanbe, Romit. (Distributed at about 2000m. in & around Tadjikistan, this is a distinct, dwarfier relative of *F. imperialis*, flowering much earlier in spring. At about 40cm. (though we are told it can reach 1m.), it is generally even more compact than the more western *F. raddeana*. The pendant bells look outwards or upwards & are more open & broader than those of *F. imperialis*. They also reputedly lack the foxy smell. Their widespread segments are often in what Alan Edwards describes as 'barley-sugar' colour : a soft yellow-orange, though they can vary to deeper reddish shades.) (10) 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
- 494.811 : FRITILLARIA EHRHARTII from YELLOW FORMS** * Field data as above. From a single clear-yellow clone we found here in April, 1985. We have grown several hundred seedlings from this to flowering & so far have had two more yellows. These have been back-crossed with the original clone but we have not yet flowered these seedlings so can give no guarantees. (10) E
- 495.200 : FRITILLARIA EPIROTICA** * Greece, Ioanina, Oros Smolikas E of Konitsa. 2300m. Loose, stony, E-facing, serpentine slopes. (Fat, purple-brown bells, dimly tessellated with yellow-green, sit almost on the ground, where the prostrate, thick, grey-green leaves twist & curl. From the type-locality, where the E.K. Balls 3434 coll. was made in 1937. This very dwarf, alpine species is almost exclusively endemic to the serpentine screes around the summit of Smolikas. One of the most desirable of all species, both exquisite and appropriate grown in an alpine-house pan, it is still little-known in cultivation & should be cherished.) . . (15+) E
- 495.700 : FRITILLARIA FORBESII** * Turkey, Mugla, Baba Da. SE of Fethiye. 850m. Humus beside boulders in shade of *Pinus*. (From near Forbes' 1842 type-locality & a little different to the serpentine populations on the Marmaris peninsula. Lime-tinged, yellow bells. Near *F. carica*, with which it grows, but taller, at 20cm. or so, & with narrow, linear, bright-green leaves.) (10+) E
- 495.853 : FRITILLARIA GIBBOSA** Iran, Zanjan, NW of Zanjan. 1250m. Sandy clay & gravel hills in river valley. (A fresh coll. of this exquisite and desirable pink-flowered species which is such a challenge to grow well. Slower than some from seed & may be best started into growth later in autumn. It is an early-flowering plant of dry areas with an extreme continental climate : very cold in winter and very hot in summer, though its bulbs can grow deeply. Mottled pink-alabaster flowers on 20cm. stems.) . (10+) E
- 495.856 : FRITILLARIA GIBBOSA** Iran, Markazi, SW of Arak. 2300m. Exposed gravelly sites on summit ridge. (Not at all the sort of site in which we should have expected to find *F. gibbosa*, usually a plant of clay or gravel hills at lower altitudes, but its winged capsules are unmistakable. As might be expected in this habitat, in a very dwarf (and we hope more growable) form.) . (10+) F
- 496.000 : FRITILLARIA GRAECA** (var. *graeca*) * Greece, Ahaia, Helmos above Kalavrita. 2000m. In alpine-steppe on stony, limestone slopes. (A superb, alpine race (illustrated in Rix & Phillips 'The Bulb Book' from Polunin & Chater 13017, collected here). Extremely dwarf & grey-leaved with very large, elongated, chestnut-orange bells, strikingly striped with yellow-green, almost at ground-level. Appears & flowers much later than the others listed & is not so easy to grow.) (10+) E
- 496.020 : FRITILLARIA GRAECA** (var. *graeca*) * No data. From several colls. in S Greece. Most will have single, more broadly campanulate bells than 496.000, on stems of about 15cm. Purple-brown segments with distinct yellow-green fascia. . . (15+) B
- 496.099 : FRITILLARIA GRAECA** var. **GUICCIARDII** * Greece, Attiki-Pireas, Parnis. 1300m. Exposed, S-facing slope. Ex an R. & R. Wallis coll. (Authentic material from a type-locality coll. of this taxon, first described from the summit area of Parnis. It has been considered to be doubtfully worth separating from the variable *F. graeca* but Georgia Kamari gives it varietal status. She distinguishes it on its longer bells, carried, up to 5, on slightly taller, broader-leaved stems.) (10+) C

Fritillaria hermonis : bringing order to confusion

Before recent investigations in Lebanon & Syria by Bob & Rannveig Wallis, these plants were little-known botanically & the dwarf type-race, only known from high on Mt. Hermon, was unknown in cultivation. While the range of variability illustrated by their collections may seem to have made the botanical situation even muddier, Bob & Rannveig will have the good grace to sort out the muddle themselves by publishing a review of this group in 2002. These plants do in fact fall into two clear-cut groupings and, while we must use the existing names here & cannot pre-empt publication of their proposed nomenclature, you can change your labels next season.

- 496.950 : FRITILLARIA HERMONIS** * Syria, Mt. Hermon, NE slopes between Quatana & Barqash. 1450m. Ex R. & R. Wallis 96-45. (From several selections : from mainly red with a slight green tessellation to grey-green with some red chequering.) (15+) D
- 497.000 : FRITILLARIA HERMONIS** subsp **AMANA** * Syria, NW of Rankous. 1850m. Ex R. & R. Wallis 96-39. . . (10+) D
- 497.001 : FRITILLARIA HERMONIS** subsp. **AMANA** * Syria, above Bludan. 1900m. Scree. Ex R. & R. Wallis 96-43. (10+) D

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

- 497.002 : **FRITILLARIA HERMONIS subsp. AMANA** * Syria, near Rankous. 1800m. Ex R.& R. Wallis 95-7. (10+) **D**
- 497.003 : **FRITILLARIA HERMONIS subsp. AMANA** * Turkey, Hatay, E of Belen. 1250m. Among *Quercus* scrub on steep, limestone slopes. (Large, elongated green bells tessellated or marked with purple-brown & with clear green fascia.) . . (10+) **C**
- 497.004 : **FRITILLARIA HERMONIS subsp. AMANA** * Turkey, Kahramanmaras, SE of Goksun. 1550m. NE-facing limestone slope. (A clone from this area, ex Horton & Stevens 2333, has been named 'Goksun Gold' but seedlings from a wild seed-coll. made in 1994 on the same site are all yellows. We are dealing with a geographical variant. Expect yellow to yellow-greens.) (10+) **E**
- 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, closer to some Syrian populations than to the larger, more northern, Turkish plants.) . . (10+) **D**
- 497.301 : **FRITILLARIA IMPERIALIS** Iran, Esfahan, SE of Khonsar. 2600m. Sandy clay slopes in steep-sided gully. (The beautiful Crown Imperial, the tallest & perhaps the most spectacular species in the genus, distributed from SE Turkey, where it is very local, through W Iran. Heads of huge, richly coloured, amber-orange bells on stems 1m. or more in height.) (15+) **C**
- 497.310 : **FRITILLARIA IMPERIALIS** * No data. From vigorous old British cultivated stock. (15+) **B**
- 497.700 : **FRITILLARIA KITTANIAE** * Turkey. Ex O. Sonderhausen 1310 & 1318. (From type-locality colls. made on Ole Sonderhausen's last trip. This is an odd, variable entity, like several recently described species doubtfully deserving specific status. Thought by some to be intermediate between *F. carica* & *F. pinardii*, Henrik Zetterlund thinks it may be derived from *F. carica* & *F. ehvesii*, resembling the former in shape & size but with the latter showing in the green & brown stripes, which can be most striking in some clones. Well worth selecting from seed, though a proportion will be more or less plain *F. carica*.) . . . (10+) **E**
- 497.905 : **FRITILLARIA LATAKIENSIS** * Turkey, Hatay, Yayladag. Ex R.& R. Wallis 93-17. (Mainly native to the oak scrub area of the adjacent NW corner of Syria, this species, considered to be allied to both *F. assyriaca* & *F. acmopetala*, is little-known in cultivation and in the wild. Slim untessellated purple-brown bells, yellow-green inside, on narrow-leaved, 20cm. stems.) (10) **E**
- 498.503 : **FRITILLARIA LUSITANICA** * Spain, Jaen, Sierra de Cazorla. Ex an A. Edwards coll. (The variable fritillaries of the Iberian peninsula, all currently 'lumped' under this name, do not seem to be satisfactorily divisible into distinct taxa. About 30cm. high with wide bells, flaring at their mouths, in shades of brown with central, yellow-green stripes down each segment.) (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**
- 499.401 : **FRITILLARIA MESSANENSIS** (subsp. *messanensis*) * Greece, Pieria, Oros Olimbos above Vrontou. 1000m. Steep, stony, limestone slopes. (The classic form of this species with the upper leaves in a whorl of 3 above the nodding bells, variably chequered with brown-purple on a greenish ground & expanding below their elegant, pinched-in waists.) (15+) **C**
- 499.450 : **FRITILLARIA aff. MESSANENSIS** (subsp. *messanensis*) * Croatia, Biokovo Planina, above Tucepi. 900m. Among limestone boulders. (Raised from a seed collection we made in 1990, under our field number 11944. Subsequently misidentified by us and listed once as *F. montana*, ref. 500.301. At the time, we were sure this was not *F. messanensis* subsp. *gracilis* but neither is it quite right for anything else. It most resembles the stock we have of the Greek *F. mutabilis*. A fine thing, variable in the maroon chequering on its big bells, which have striking, brilliant green fascia of varying width on the outer segments.) (15+) **D**
- 499.701 : **FRITILLARIA MESSANENSIS subsp. GRACILIS** * Bosnia & Hercegovina, Bjelasnica (NE of Dubrovnik). (A distinct race with untessellated, chestnut-brown bells, edged with gold. Very hardy & one of the finest, most vigorous species in cultivation 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 93-30 & 93-39. (From a fine, classic form of this arresting & growable species. Large, polished mahogany bells, broadly rimmed with yellow. This form is not so readily obtainable as the ubiquity of the name may suggest : many commercial stocks are now poor & very variable.) . (15+) **B**
- 500.300 : **FRITILLARIA MONTANA** * Macedonia, Galicica Planina above Trpjeca. 1600m. Exposed, dry, limestone slopes. (A slender, dwarf form of this variable, widespread group. Globular, brownish bells & bulbs with a stoloniferous habit.) . (15+) **C**
- 500.320 : **FRITILLARIA MONTANA** * Turkey, Antalya, SW of Hisarcandir (Antalya to Altinyaka). 900m. Openings among scrub, in heavy red clay. (Raised from a single capsule collected in 1994, in a habitat now largely eliminated by road-construction, this has proved to be *F. montana*, not previously recorded from Turkey & greatly extending the range of this widespread species, the nearest known site being in NE Greece. A particularly fine, tall, elegant form with big dark, brown-purple bells.) (15+) **D**
- 500.329 : **FRITILLARIA MONTANA** * No data. From another excellent, dark-flowered, vigorous form, about 30cm. high, originating from material cultivated in Hungary, though it is not, as far as we know, native to that country. (15+) **C**
- 500.400 : **FRITILLARIA MUTABILIS** * Greece, Fokida, Oros Giona SW of Kaloskopi. 1800m. Among grasses on open, limestone slopes. (Kamari's name, in her 1991 account, for the populations from the N Peloponnese to the S Pindus, which do not fit into her concepts of *F. graeca* & *F. thessala*. These Greek mainland plants pose the same problem as the Iberian ones. 'Lumping' all under *F. graeca* obscures the utterly distinct nature of the extremes. 'Splitting', dubiously sustainable botanically, though it gives more names to gardeners, means that several 'species' may be found together in populations of 'hybrids' or intergrades.) . . . (10+) **D**

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

- 500.401 : FRITILLARIA MUTABILIS** * Greece, Viotia, Oros Parnassos, Kelaria. 1700m. Ex an R. & R. Wallis coll. . . . (10+) **D**
- 500.402 : FRITILLARIA MUTABILIS** * Greece, Viotia, Oros Parnassos, Gerondovrachos. 1750m. R. & R. Wallis coll. (10+) **D**
- 500.505 : FRITILLARIA OBLIQUA** * Greece, Attiki-Pireas. Ex an O. Sonderhausen coll. (One of the most local European species with guaranteed authenticity : seed sent to us by Martyn Rix now provides a genetically diverse source. Mainly 'keyed-out' on its fewer flowers with longer style-branches, *F. obliqua* has similar, bloomy, blackish bells to *F. tuntasia* but these are carried on shorter stems, with far fewer leaves, which lie mainly at the base of the 20cm. stem, where they are broad & glaucous.) (10+) **E**
- 500.506 : FRITILLARIA OBLIQUA** * No data. Ex N. Stevens form. ("The true plant" writes Norman but this certainly behaves differently to the preceding stock : "the first *Fritillaria* to flower, out in late February or early March.") (15+) **D**
- 500.507 : FRITILLARIA OBLIQUA** * No data. Ex H. & I. Barton form. (The Bartons were frequent visitors to the Athens area but we have no documentation on this. Distinct from the above two & from our stock of *F. tuntasia*.) (15+) **D**
- 501.205 : FRITILLARIA ORIENTALIS** * No data but the genuine species from material originally from Martyn Rix. An obscure, little understood plant in the confusing *F. montana* group, where names have been much misapplied. The synonym *F. tenella* is appropriate : slender, 30cm. stems with many, linear leaves, the uppermost in a whorl of 3, incline (even in cultivation not only on its native cliff faces) to hang out up to 5 dark bells, densely chequered brown-purple outside & reddish inside. (15+) **D**
- 501.400 : FRITILLARIA PALLIDIFLORA** * Kazakhstan, Khrebet Tarbagatai. Ex a J. Ruksans coll. (From a coll. of this splendid Central Asian species, made in this seldom-visited range, on the Sinkiang border N of the Dzungarian Ala-Tau. About 30cm. high with broad, grey leaves & big pale-yellow bells. One of the finest & most satisfactory to grow outside in the UK. (15+) **C**
- 501.410 : FRITILLARIA PALLIDIFLORA** * No data. From established British cultivated stock. (15+) **B**
- 501.501 : FRITILLARIA PERSICA** Iran, West Azerbayejan, S of Silvaneh. 1600m. Steep, E-facing, clay slope. (Well-known in cultivation & quite frequent in the western Iranian mountains. This can reach 1m. in height, though usually about half that, with racemes of up to 20, grey-green to purplish bells. Iranian colonies can be very variable and the yellowish variant described as "eggeri" is not uncommon. Possible outside in good, well-drained soil in a sunny site in the UK.) (15+) **C**
- 501.801 : FRITILLARIA PINARDII** * Turkey, Denizli, Honaz Dag. 1650m. Stony clay over limestone. (This is good : a very neat plant & an excellent grower with us. Dwarf with yellow bells, which mature to rust-red. Suspiciously like *F. carica* at first glance but the altitude & habitat seem wrong for this : *Fritillaria* is not so clear-cut as many growers imagine.) (10+) **C**
- 502.010 : FRITILLARIA PONTICA** * No data. A plant of moist shade in the woodlands of Bulgaria & NE Turkey, so, not surprisingly, one of the best to grow outside in the UK. Big, soft-green, brown-tinged, round-shouldered bells. (20+) **B**
- 502.102 : FRITILLARIA PONTICA** var. **SUBSTIPELATA** * Greece, Lesbos, between Keramia & Agiassos. c.350m. In terra rossa on steep slope half-shaded by *Platanus*. Ex D.M. Hoskins 97-I. (An interesting island-race adapted to much warmer, drier habitats than the mainland type-race. In this coll., it is a taller, more slender plant with narrower foliage than the mainland ones. Longer, waisted, pale-green bells heavily blotched with purple-brown at the tips inside. A very fine thing, rare in cultivation.) . . . (15+) **D**
- 502.310 : FRITILLARIA PYRENAICA** * No data. An excellent garden-plant in the UK. Endemic to the mountain meadows of the wet, W Pyrenees. Broad, dark purple-brown bells, opening at the mouths to show the greenish yellow interiors. (15+) **B**
- 502.400 : FRITILLARIA RADDEANA** * Iran, Mazandaran, Gorgan, W of Bojnurd. 1200-1500m. Limestone valley. Ex P. Furse 8953. (From one of the seed & bulb colls. (PF 5162, etc.) made by Paul Furse in 1964 & 1966, in & around what was then the royal hunting reserve in Gulestan. Like a dwarfier, primrose yellow version of *F. imperialis*. Small enough for a pot or the bulb-frame but growable outside in the UK though it starts & flowers early, so protection safeguards both flowers & seed-set.) (10+) **C**
- 502.403 : FRITILLARIA RADDEANA** Iran, Khorasan, Bojnurd, E of Tang Rah. 1200m. Among scrub on limestone. (Our 2001 wild collection from a little to the E of the earlier PF collections. In 2001, it did not appear to be numerous here.) . . . (10+) **D**
- 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.) (10+) **D**
- 502.605 : FRITILLARIA RHODOCANAKIS** from **YELLOW-GREEN FORM** * Data as above. (10+) **D**
- 502.620 : FRITILLARIA RIXII** * Greece, Evia. (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 a little-known plant in cultivation, this will make it no less desirable to the specialist, especially as Norman Stevens commends as a form more likely to appeal to gardeners. About 20cm. high with yellow bells : perhaps closest to the Turkish *F. sibthorpiana*.) (10) **E**
- 502.700 : FRITILLARIA RUTHENICA** * Russia, (formerly Mordovskaya ASSR), Penza district. (A seldom-seen, northern species from the Volga basin, SE of Moscow. Closest to the equally obscure *F. orientalis* (q.v.), from which it is easily distinguished by the curled, cirrhose tips of the upper leaves : very elegant with narrow leaves & dark maroon-red, chequered bells.) (15+) **D**

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

- 502.760 : FRITILLARIA SEWERZOWII** * No data. An exciting, distinct Central Asian species, with affinities to *F. imperialis* & to *Lilium*. Split by some into the monotypic genus *Korolkowia*. We have always found it difficult but others grow it successfully. This seed is from Germany : it may enjoy a more continental climate. Like no other in its pendant, narrow bells with widespreading tips to the segments of brilliant yellow-green to blackish brown. About 30cm. or more high with broad, grey-green leaves.) (10+) **D**
- 502.805 : FRITILLARIA SIBTHORPIANA** (subsp. *sibthorpiana*) * Turkey, Mugla, near Bozborun. 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 two localities on the peninsulas SW of Marmaris in the extreme SW corner of Turkey. Distinct from the others with bright yellow bells in its two, or occasionally three, broad, glaucous leaves, clasping the 20-30cm. stem.) (10+) **E**
- 502.880 : FRITILLARIA SORORUM** * Turkey, Icel, N of Gulnar. 700m. (Described in 1998 from the J. & K. Persson 87-99 coll., without a precise type-locality, though a much earlier coll. (Davis & Polunin 26044) was made in this area & noted by Martyn Rix, who did not see fit to consider it as a new species Martyn's reluctance to proliferate specific names in *Fritillaria* is commendable but nevertheless this is, horticulturally, quite distinct, somewhat intermediate between *F. acmopetala* & the much more western *F. whittallii* in appearance, though the short type-diagnosis compares it with *F. involucrata* from the Alpes-Maritimes. About 30 cm. high with alternate linear leaves & rounded, rather than angular, bells of glaucous green chequered with purple-brown.) . (10) **F**
- 503.500 : FRITILLARIA STRIBRNYI** * Turkey, Canakkale, Gelibolu (Gallipoli). Ex V. Horton & N. Stevens 2067. (Extremely local in SE Bulgaria & adjacent European Turkey, just crossing the Bosphorus into Asia here. Elegant, about 20cm. high with linear, greyish foliage & narrow, glaucous, untesselated, purple & green bells. Slow, seldom available but not so difficult.) . . (10+) **E**
- 503.601 : FRITILLARIA THESSALA** (subsp. *thessala*) (*F. graeca* subsp. *thessala*) * Greece, Trikala, below Katara. 1500m. Open W-facing slope with *Pinus* & *Juniperus*. (Quite an even population & a distinct enough species here in the central Pindus. Big, long bells, variably chequered with brown-purple hang below the topmost whorl of 3 broad, grey-green leaves.) (15+) **B**
- 503.602 : FRITILLARIA THESSALA** * Greece, Smolikas above Ag Paraskevi. 1500m. Ex Christian & Hoog 880. . . . (15+) **B**
- 503.651 : FRITILLARIA THESSALA** from **YELLOW FORMS** * Data as above. From three pale yellow clones with soft-green chequering selected out of seedlings from the P. Christian & A. Hoog 880 coll., pollinated among themselves.) (15+) **E**
- 503.700 : FRITILLARIA THESSALA** subsp. **IONICA** (*F. ionica*) * Greece, Kerkira, Pantokrator. Ex an E Sewell coll. (Doubtfully separable from mainland populations but we retain the name for the Corfu island-race, which is fairly consistent in its single green bells just touched with a purple or pink tessellation on the margins. Dwarfier & a good grower in the UK.) (20+) **C**
- 503.720 : FRITILLARIA THESSALA** subsp. **REISERI** * No data. A low-altitude endemic of the NW Greek limestones of Aetolia below 200m.. Broad, shining green leaves & dusky purple-brown bells, sometimes with indistinct tessellation. (10) **E**
- 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 more greyish leaves more evenly distributed up the 30cm. stems & up to 5 flowers. You will find authentic seed of *F. obliqua* listed : our stocks are most distinct. Some excellent seed this year of this strikingly beautiful plant, whose conical bells are virtually black with a glaucous bloom outside. . (15+) **C**
- 504.705 : FRITILLARIA WHITTALLII** * Turkey, Isparta. Ex a N. Stevens coll. (Exceptionally local, this appears limited to small, 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 bells, delicately tessellated with purple, recalling *F. meleagris*, are unmistakable.) (15+) **D**
- 504.710 : FRITILLARIA WHITTALLII** * No data. From several R. & R. Wallis & N. Stevens colls. (15+) **C**
- 504.001 : FRITILLARIA ZAGRICA** Iran, Esfahan, SE of Khonsar. 2600m. Sandy clay. (listed in 2000 under field-number 16980) (A classic form of this dwarf species, characteristic of the mountains in the central Zagros range, often as a snow-melt plant. Introduced in the 1960's but it became very rare in cultivation, where it is by no means easy to maintain. Extraordinarily unvariable in its glaucous, black to very dark plum-purple bells, distinctively & characteristically tipped with yellow.) (10+) **E**
- 504.001 : FRITILLARIA ZAGRICA** Iran, Kordestan, NW of Divandarreh. 2000m. Gravelly clay slopes. (listed in 2000 under field-number 16869) (A coll. from further N than we expected to find this species. Browner, yellow-tipped bells.) (10+) **E**

Fritillaria : Unidentified Collections from Iran, May-June, 2001

We were wrong in several of the suggestions regarding identity last year, so offer no clues for these unidentified 2001 collections :

- 17197 : FRITILLARIA SP.** Iran, Markazi, SW of Arak. 2200-2300m. Open rocky slopes. (10+) **E**
- 17233 : FRITILLARIA SP.** Iran, Kordestan, E of Sanandaj to Marivan. 1700m. Loose shale slopes. (10+) **E**
- 17242 : FRITILLARIA SP.** Iran, Kordestan, E of Shuysheh (SE of Marivan). 1750m. Open shale slopes. (10+) **E**

Two puzzling Iranian Fritillaria collections

17255 : FRITILLARIA SP. Iran, Kordestan, SW of Daraki (S of Marivan). 2500m. SW-facing limestone slope. (See our front page for an account of our search here for *F. crassifolia* subsp. *pohuninii*. Though this has to be almost precisely on Wendelbo's Iranian locality for this plant, this collection cannot be it : this is a big, robust plant about 25cm. high with up to four flowers. The first thought was that it had to be something to do with *F. straussii* but the leaves are alternate : neither paired nor whorled. This area, high in the mountains right on the Iraqi border, has long been inaccessible & is virtually uncollected.) (10+) F

17279 : FRITILLARIA SP. Iran, West Azerbayejan, S of Salmas. 1780m. Montane grassland on open slope. (Seed listed in 2000 under the field-number 16820) (Last year we suggested this population, which we have not seen in flower, was almost certainly *F. chlororhabdota*, which is recorded from this area & is the plant assigned to "*F. canaliculata*" in the 1960's. Bob & Rannveig Wallis have now flowered a few specimens and can say it does not have canaliculate leaves & is certainly not this. Nor does it quite match the description of *F. atrolineata*, a recently described, not dissimilar species from this area, which we collected a short distance to the N near Silvanah. Bob says he could call it a tall *F. zagrica* if it had yellow-tipped flowers (a similar plant may account for the record of *F. zagrica* near the Turkish-Iranian border crossing at Esendere) and could key it out as the Turkish endemic *F. armena*. The habitat seems wrong for both of these : a rich meadow not steppe and moreover this is a slender plant 20cm. or more high. Maybe it is nearest the northern *F. caucasica* but who can say it will not end up as another new species.) (15+) E

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

508.510 : GALANTHUS FOSTERI * No data. Ex several R. & R. Wallis colls. from S Turkey & Syria. (A distinct snowdrop with shiny, green leaves, It has a N-S distribution through central Turkey & Syria into Lebanon. Does well pot-grown.) . . . (10) E

509.209 : GALANTHUS PLICATUS (subsp. *plicatus*) Ukraine, Krim, near Yalta. (The type-race of this fine snowdrop has two main population centres, one in E Romania & the other here in the Crimea. This is the one which has given rise to fine garden cultivars like the wild-collected 'Warham', which reputedly came to England around 1855, during the Crimean War.) (10) D

509.301 : GALANTHUS REGINAE-OLGAE (subsp. *reginae-olgae*) * Greece, Lakonia, Oros Taigetos, Profitis Ilias. 1400m. Light shade under *Platanus* & *Pinus*. Ex D.M. Hoskins 98-22. (A high altitude coll. from the tree-line. The classic form of this beautiful snowdrop, flowering quite early in autumn well before any leaves appear. Good drainage & some sun in the UK.) (10) D

509.360 : GALANTHUS REGINAE-OLGAE subsp. VERNALIS Italy, Sicily, Mte. Peloritani. 1050m. (A new coll. from NE Sicily from this predominantly Greek, midwinter snowdrop, flowering in the wild from October into spring. Aaron Davis, in his recent account of the genus, regards this subspecies, described in the 1980's, as "rather imperfectly differentiated" and is ambiguous about whether the Sicilian snowdrops should be placed under subsp. *vernalis* or under subsp. *reginae-olgae*.) (10) E

509.609 : GALANTHUS WORONOWII Russia, near Sochi, Black Sea coast. (Confused with the allied Aegean *G. ikariae* for many years, this splendid plant with broad, glossy, light green leaves has now been recognized at specific level in the recently published account of this confusing genus. Distributed up to 1400m. altitude E of the Black Sea from S Russia through Georgia.) (10) D

532.000 : GLADIOLUS ATROVIOLACEUS Iran, Lorestan, W of Azna. 1900m. Fallow-fields & margins of cultivated land. (The splendid, 60cm. high species which stains the fresh green fields of the high Zagros valleys with its rich, dusky violet-purple flowers in spring. Seldom seen in gardens but an extremely hardy plant, suited to a well-drained site in full sun in the UK.) . . . (15+) C

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

532.810 : GLADIOLUS PALUSTRIS * No data. An attractive plant very seldom seen in UK gardens, though it is utterly hardy and well-adapted to the climate. Distributed, usually in moist meadows, here and there though central & E Europe, from SE France to the Ukraine. About 30cm. high with a loose, secund spike of up to 6 purplish red flowers in early summer. (15+) B

Gladiolus : unidentified collections from Syria & Iran

17206 : GLADIOLUS SP. Iran, Hamadan, SE of Qorveh. 1900m. Sandstone & clay hills with *Hulthemia* (10+) C

17251 : GLADIOLUS SP. Iran, Kordestan, SW of Negel (Sanandaj to Marivan). 1350m. Oak scrub on clay slopes. (10+) C

17281 : GLADIOLUS SP. Iran, W Azarbayejan, S of Salmas. 1780m. Open ridgetop ; on crystalline rock. (10+) C

R. & R. Wallis 96-6 : GLADIOLUS SP. * Syria, between Salkeen and Kafratk-harem. 58m. (10+) C

Helleborus : fresh seed from the fragments of former Yugoslavia

We list a fine range of this genus, all 2001 collected & almost all from wild colonies, through the efforts of Will McLewin, not only with his own material from SE Europe but also in arranging collections by local botanists. Soaking seed in hot (not boiling) water and leaving it at room temperature for a day before sowing may help germination. These germinate at low-

temperatures : keeping seed warm after sowing will inhibit germination. For more information & accounts of each species, refer to 'Hellebores' by Brian Mathew or 'The Gardener's Guide to Growing Hellebores' by Graham Rice & Elizabeth Strangman. Seeds from garden hybrids will be found listed in the section 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 coll. (Variable in foliage & colour, this is one of the most local & least-known Balkan species. Not all are purple but it can produce some striking purple-flowered plants with purple-tinged leaves. The name is still misapplied in gardens to hybrids, usually of *H. orientalis* subsp. *abschasicus*.) . . . (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 coll. (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. Seed sometimes waits for a second winter to germinate, even if sown freshly.. . . . (15+) **B**
- 561.502 : HELLEBORUS MULTIFIDUS** (subsp. *multifidus*) Croatia, Velebit Planina, near Krasno. W. McLewin coll. (Core species of a confusing, essentially Yugoslavian, complex of cut-leaved hellebores with pendant, green-tinged yellow flowers. The currently recognized taxa intergrade both with each other & with adjacent species. This is from a superlative colony with beautiful divided foliage. These inland, deciduous species do best in the UK in an open, well-drained situation.) (10+) **D**
- 561.583 : HELLEBORUS MULTIFIDUS** subsp. **BOCCONEI** Italy, Umbria-Marche, N of Perugia. W. McLewin coll. (Close to the Yugoslavian *H. multifidus* complex, the central & southern Italian hellebores are all currently regarded as *H.m. bocconeii*, a little-known taxon. The main diagnostic difference, a dubious one, is theoretically in the foliage but these can also be quite distinct in flower, generally with larger, more rounded flowers in greenish yellow, on shorter pedicels than Yugoslavian plants.) (10+) **E**
- HELLEBORUS NIGER** * No data. The classic Christmas Rose with huge white, bowl-shaped flowers, sometimes flushing to red or pink shades as they mature, above low clumps of dark, glossy green, divided foliage. Can be temperamental. (15+) **B**
- 562.006 : HELLEBORUS ODORUS** Hungary, Mecsek Mts., near Pec. W. McLewin 98-29. (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. For really good bright-green flowers, go no further than this with its big, outward-facing cups on sturdy stems.) (10+) **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**
- 562.411 : HELLEBORUS ORIENTALIS** Georgia, SE of Bordzhomi. (Both creams & deep pinks with intermediates.) (15+) **E**
- 562.600 : HELLEBORUS PURPURASCENS** Hungary, Bukk Mts. W. McLewin coll. (Will tells us there are some superb dull-purple clones in these populations of this neat, predominantly Hungarian species, still 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**
- 562.802 : HELLEBORUS TORQUATUS** Yugoslavia, Crna Gora, N of Kolasin. 1100m. Open areas of stony, grazed grassland. (Will McLewin visited Montenegro in 2000 and made contact with the local botanist who made this collection. Classic Montenegrin *H. torquatus*, variable in colour from yellowish greens to dove colours & slate shades, from the site where, in 1971, Elizabeth Strangman collected the doubles, which she called Dido and Aeneas & which have influenced much recent breeding.) (10+) **E**
- 562.804 : HELLEBORUS TORQUATUS** Bosnia & Hercegovina, N of Bosanski Petrovac. 500m. Among scrub & on open, grassy slopes. W. McLewin coll. (A superlative colony here in the 'Bihac Pocket' at the N tip of Bosnia : different to the southern populations ascribed to *H. torquatus* in Montenegro. Essentially *H. multifidus* subsp. *multifidus* with variable inky-purple flushing & veining on the flowers. Some exquisite things here : one is illustrated on p.106 of Brian Mathew's monograph.) . . . (10+) **E**
- 563.001 : HELLEBORUS VESICARIUS** Turkey, Gaziantep, hills between Gaziantep & Sakkagoz. c. 1000m. Among sparse scrub in terra rossa over limestone. (A summer-dormant species for the bulb-frame. Both wild and cultivated seed germinates irregularly. The cucumber-like seedlings usually go dormant without producing true leaves. These first-year, dormant roots can be lost through overdrying & this is the most critical period. Viability of seed lasts for many years so do keep ungerminated seed.) . . . (10+) **E**

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

- 567.020 : HERMODACTYLUS TUBEROSUS** * No data. The irresistible, green & velvety-black iris of the Mediterranean. Tuberous-rooted & summer-dormant, this is easy enough to grow outside in the UK but needs a very hot, dry spot to flower well. (15+) **B**
- 570.950 : HYACINTHELLA ACUTILOBA** * Turkey, Sivas, Ziyaret Tepe. 2100m. Thin, limestone gravel on exposed ridges. (Wiry, 10cm. stems with little pale to mid-blue bells rising from 2-3 distinctively broad leaves. A central Anatolian endemic.) (15+) **C**
- 571.000 : HYACINTHELLA ATCHLEYI** * Greece, Evia, mainland hills opposite Halkida. 200m. Open limestone slopes with sparse scrub. (Lots of little, clear-blue bells on wiry, 10-15cm. stems in early spring. Only grows around here & Thebes.) . . . (15+) **C**
- 571.145 : HYACINTHELLA HELDREICHHI** * Turkey, Antalya, between Beysehir & Akseki. Ex R. & R. Wallis 90-50. (Sessile, deep violet-blue bells on wiry, 10cm. stems. Not quite so dark as the allied *H. lazulina* from further east.) (15+) **C**
- 571.160 : HYACINTHELLA HISPIDA** * Turkey, Nigde, E of Ulukisla. 1500m. Steep, exposed, limestone slopes. (Distinct, hairy leaves & 10cm. racemes of up to 30 blue-violet flowers. Like most in this dainty & neglected genus, a local plant.) . . (15+) **C**
- 571.201 : HYACINTHELLA LAZULINA** * Turkey, Karaman, SSE of Karaman. c.1100m. Open steppe. (Recent 'split' from *H. heldreichii*, mainly from the area S of Karaman to Gulnar. Glaucous leaves & deepest blue, violet-shot flowers.) (15+) **C**
- 572.005 : HYACINTHOIDES ALGERIENSIS** (*H. hispanica* var. *algeriensis*) * Morocco, Middle Atlas, ESE of El Ksiba, Tizi-n-Ifar. Ex JWB 89-18A (An attractive Moroccan bluebell, rather like *H. reverchonii* & often a plant of limestone-fissures.) . (15+) **B**
- 572.201 : HYACINTHOIDES NON-SCRIPTA** UK, Wales, below Ffostrasol. 150m. Mixed, deciduous woodland. (From our own population of bluebells, most spectacular of native British bulbs, hardly in need of 'conservation' around here.) (20+) **A**
- 572.300 : HYACINTHOIDES REVERCHONII** * Spain, Jaen, Sierra de Cazorla, above source of the Guadalquivir. 1400m. Red clay pockets on limestone cliffs. (An obscure, narrow-endemic but easy here under glass : wide-open, rich-blue flowers.) . (15+) **C**
- 572.340 : HYACINTHOIDES VICENTINA** from **WHITE FORM** * Only known from the Cabo S. Vicente in S Portugal. Ex a V. Horton coll. (White form of this disjunct relative of *H. italica*, distinguished by its yellow, instead of blue, pollen.) . . . (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.) (10+) **C**

Iris : new *juno*, *reticulata* and *oncocyclus* collections

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 our efforts to collect or produce this seed) by trying to grow the difficult ones before you have grown the easier species. We include 'reticulatas' and *oncocyclus* irises here but most bearded irises & other groups will be in our next list. The best reference for all the species is 'The Iris' by Brian Mathew.

- 584.307 : IRIS AUCHERI** (Subgen. *Scorpiris*) Iran, West Azarbayegan, between Agh Bolagh & Sangar. 1500m. In heavy clay on rocky, limestone slope. (An excellent *Juno* and one of the easier ones to grow in the UK. About 30-50cm. high with several blue flowers appearing successively from among papery bracts. Old flowers indicate a good deep-coloured form here.) (10) **C**
- 584.308 : IRIS AUCHERI** (Subgen. *Scorpiris*) Iran, Kordestan, E of Sanandaj. 2000-2300m. Rock-ledges & stony slopes. (10) **C**
- 585.700 : IRIS CYCLOGLOSSA** (Subgen. *Scorpiris*) * Afghanistan, SW of Herat. 1450-1700m. Seasonally moist, grassy places near streams. Ex Hedge, Wendelbo & Ekberg 7727. (A superlative & spectacular species, unlike any other *Juno*, or indeed any other *Iris*, & known only from the currently inaccessible 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 difficult in the bulb-frame or alpine-house but still needs some skill & care to maintain, though it is now being grown successfully by some in the open garden in the UK.) (10+) **D**
- 586.410 : IRIS FILIFOLIA** (Subgen. *Xiphium*) * No data. Native to SW Spain & NW Africa in dry, stony places, usually on limestone. "A very beautiful" bulbous iris about 30cm. high with very narrow, linear leaves & long-tubed flowers in rich red-purple, slashed with yellow on each fall. Not a high altitude species so it will be best in the bulb-frame or a cold greenhouse in the UK . . . (10+) **D**
- 586.900 : IRIS FOSTERIANA** (Subgen. *Scorpiris*) Iran, Khorasan, Kopet Dag N of Quchan. 1750-2000m. Open, stony, limestone slopes. (One of the most striking & distinct of *junos*, *I. cycloglossa* notwithstanding. Centred on the Kopet Dag, the mountain-range along the border between Turkmenistan & Iran, it has never really settled down in cultivation. Perhaps the increasing & more widespread skill in cultivating these irises might give this new collection a better chance. It increases well in the wild, forming clumps of bulbs, which send up tufts of silver-edged leaves & 15cm. stems carrying one or two, large, bicoloured flowers : cream to yellow falls & upstanding style-branches overtopping the prominent, large (for a *juno*), strongly deflexed, deep purple standards. Perhaps planting this out in a raised bed under glass or in a bulb-frame might give this more chance of success than in a pot.) . . . (5) **F**

- 588.809 : IRIS HISTRIOIDES** (Subgen. *Hermodactyloides*) * No data. From the clone 'Lady Beatrix Stanley', which according to Brian Mathew is fairly typical of the wild plant. One of the most sumptuous of dwarf, bulbous irises, its large violet-blue flowers, heavily spotted on the falls, push through the bare earth in early spring. Endemic to a small area of Samsun & Amasya provinces in NW Turkey at between 1300 & 1750m., in the coniferous forest zone of a moist area. Growable outside in the UK.) . . . (8) **D**
- 589.354 : IRIS HYMENOSPATA subsp. LEPTONEURA** (Subgen. *Scorpiris*) Iran, Kordestan, SE of Qorveh. 1900m. Eroded clay hills. (A distinct dwarf relative of *I. persica*, extending S from the Hamadan area through the Zagros towards Esfahan. One or two pale, translucent yellow, almost stemless flowers with navy-blue zones below their yellow crests appear between curved, silver-edged leaves. Very difficult to grow, though perhaps less so than the southern, desert race, *I.h.* subsp. *hymenospata*.) (5) **F**
- 589.355 : IRIS HYMENOSPATA subsp. LEPTONEURA** (Subgen. *Scorpiris*) Iran, Hamadan, NW of Hamadan. 1750m. Open gravelly clay slopes. (Our 2000 colls. under the field-numbers 16928, 16965, 16954 & 16974 were also this subspecies.) . (5) **F**
- 590.300 : IRIS KOPETDAGENSIS** (Subgen. *Scorpiris*) Iran, Khorasan, Bojnurd, E of Tang Rah. 1200m. Steep, loose limestone slopes & among scrub. (Extending from this area, through the Kopet Dag & into Afghanistan, this is, like so many junos collected in the 1960's, not currently in general cultivation. Stems about 20cm. high in flower, hidden by the broad, curved, overlapping leaves, with up to 9 yellow-green flowers with bright yellow crests on the falls, appearing from the upper leaf-axils.) (5) **F**
- 590.301 : IRIS KOPETDAGENSIS** (Subgen. *Scorpiris*) Iran, Khorasan, Kopet Dag N of Quchan. 1750. Limestone. (5) **F**
- 590.651 : IRIS LOCZYI** (Ser. *Tenuifoliae*) Kyrgyzstan, Terskey Alatau, S of Barskoon. 2930m. A. Dickerson 00-21 (A dwarf, tufted species, widespread on the mountains of Central Asia. Leaves 15-30cm. high from tussocks of persistent leaf-bases & almost stemless, long-tubed, blue-purple flowers, the falls veined with purple on a creamy ground. Difficult both to germinate & grow.) . (8) **E**
- 590.910 : IRIS MAGNIFICA** (Subgen. *Scorpiris*) * No data. A splendid Central Asian, possibly the easiest junco 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**
- 591.060 : IRIS MEDA** (Sect. *Oncoclychus*) Iran, E Azarbayejan, NE of Miyaneh. 1500m. Among steppe vegetation in stony clay. (A striking *Iris* with extremely long spathe-valves. Very close to *I. sari* (not accepted as occurring in Iran) but the falls are tucked in. Bright lemon yellow to straw-yellow ground-colour veined with dull brown & a dense beard of bright yellow hairs immediately above a maroon-black signal patch. About 20cm. high & much more robust than the small forms from the Kurdish steppes far to the SW, the only ones we saw in flower in the 1960's. Material from this locality, not accessible by road in the 1960's, has not been in cultivation before, though collections were made then from very variable, low altitude populations on the mudhills of the Zanjan Chay river-valley, on the main road to Tehran, SSE of Miyaneh : we now have material of these in cultivation again also.) (5) **F**
- 594.200 : IRIS PSEUDOCAUCASICA** (Subgen. *Scorpiris*) Iran, West Azarbayejan, between Disaj & Agh Bolagh. 1870m. Gravelly clay slopes. (A small junco, about 10cm. high, with several curved, channelled leaves with silver-white ribs & margins & up to 4 flowers with yellow-crested falls. Very variable in ground-colour in translucent shades of yellow-greens, grey-greens, ice-blues and smoky-violets. Not easy but less of a problem than *I.h.* subsp. *leptoneura* & many others.) (8) **F**
- 595.808 : IRIS RETICULATA** (var. *reticulata*) (Subgen. *Hermodactyloides*) * Iran, Kordestan, E of Sanandaj. 2000-2300m. Rock- ledges & on open stony igneous slopes. (Almost certainly one of eye-catching, Kurdish bicoloured forms of *I. reticulata* (or *I. bakeriana* : we cannot see how the distinction can be maintained in Iran), which were introduced in the 1960's but have now vanished from cultivation. Likely to have pale-blue standards & velvety, deep violet falls with yellow crests.) (8) **E**
- 595.810 : IRIS RETICULATA** (Subgen. *Hermodactyloides*) * Iran, Kordestan, SW of Daraki. 2500m. Loose, SW-facing limestone slope. (It is extremely seldom that we have been able to collect more than a few seeds from any wild *I. reticulata* : little is usually set and those that are, dehiscing at ground-level from almost stemless capsules, are rapidly carried away by ants. This population, from the same slope on the Iraqi border as our mysterious *Fritillaria* collection 17255, carried its capsules on long, arching, wiry pedicels, in the previously unique manner of *I. pamphylica* but more or less erect rather than drooping : one weird plant.) (8) **F**
- 600.600 : IRIS URMIENSIS** (Sect. *Oncoclychus*) (*I. barnumae* subsp. *barnumae* f. *urmiensis*) * Iran, West Azarbayejan, S of Salmas. 1780m. Montane grassland over crystalline rock & on open, stony slopes. (A very beautiful & unmistakable *Iris* endemic to a range of hills S of Salmas, running at a right angle from the Turkish-Iranian border mountains towards Lake Orumiyeh. About 20cm. high with clumps of little, curved, grey-green leaves & large clear-yellow flowers, varying a little in depth of colour, with beards of dense, orange-yellow hairs above deep-yellow signal-patches on the falls. Hand-pollinated seed from our 2000 coll.) (5) **F**
- 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**

Iris (Section Scorpiris) : Unidentified junos from Iran

- 17190 : IRIS SP.** (Sect. *Scorpiris*) Iran, Markazi, SW of Arak. 2200-2300m. Open stony slopes. (5) **F**
- 17240 : IRIS SP.** (Sect. *Scorpiris*) Iran, Kordestan, E of Shuysheh (Sanandaj to Marivan.) 1750m. Loose, shale slope. . (5) **F**
- 17282 : IRIS SP.** (Sect. *Scorpiris*) Iran, W Azarbayejan, S of Salmas. 1800m. Exposed stony slopes. (5) **F**
- 17285 : IRIS SP.** (Sect. *Scorpiris*) Iran, W Azarbayejan, NNE of Hashtiyan. 1500m. Open stony slopes. (5) **F**

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

- 625.001 : LEONTICE LEONTOPETALUM** (subsp. *leontopetalum*) * Turkey, Mardin, W of Kiziltepe. 700m. Fallow fields. (One of the odd tuberous members of the *Berberidaceae* (or the *Podophyllaceae*, depending who you follow) from the E Mediterranean & Central Asia. Branched terminal inflorescences of many yellow flowers rising to about 50cm. above the fleshy, glaucous, cut & lobed foliage & are followed by inflated, balloon-like, pink tinted capsules, the plant goes dormant in summer.) (5) **D**
- 625.070 : LEONTICE LEONTOPETALUM** subsp. **EWERSMANNII** Iran, Kordestan, ESE of Sanandaj. 2050m. Steep, rocky slopes with diverse steppe vegetation. (The dubiously separable, more eastern race with narrower leaf-segments and the fruiting pedicels angled upwards. All these are very handsome, summer-dormant plants suited to bulb-frame conditions. They do not increase vegetatively and must be grown from seed, so they remain unobtainable in commerce & virtually unknown in gardens.) . (5) **D**
- 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. Blanchard (JWB 88-02) & T. Norman colls. (A fine, spring-flowering plant, considered a doubtful species by many, until recently rediscovered & introduced. Large white bells on 20cm. stems. May be closest to *L. nicaense* & proving as easily grown in similar conditions in the alpine-house.) . . . (15+) **D**
- 632.600 : LILIUM CANDIDUM** * Greece, Lakonia, W of Sparti. 500m. Steep, limestone slopes among *Euphorbia*, *Phlomis*, etc. (Incomparable, pure-white lily. Older cultivated stock is sterile & full of virus. This is from stock maintained here by hand-pollination from our 1983 wild seed coll. It survives outside in our wet climate but we grow it under glass for seed.) (10+) **D**
- 633.950 : LILIUM LEDEBOURII** * Iran, Gilan, Talish. 1700-1900m. Openings in degraded *Fagus* forest. Ex an A. Ala coll. (A very local species, known from one site in the Caspian forest of Iran & one or two in neighbouring Azerbaijan. A superlative plant, now well-established & accommodating in several British gardens from Anne Ala's original coll. in the 1970's. Stems about 1m. high with up to 15, white flowers, banded with yellow-green, lightly speckled with purple & with deep orange anthers.) (10+) **E**
- 634.401 : LILIUM POMPONIUM** * France, Alpes-Maritimes, Montagne de Maurel, NE of La Mure. 1000m. Among scrub in steep-sided limestone gully. (Perhaps the most restricted & local of the European lilies in the wild. Its purplish stems set with many, twisting, linear leaves rise only to about 50cm. and can carry up to 10 scarlet flowers. Sow seed in the autumn.) (10+) **D**
- 634.810 : LILIUM PYRENAICUM** * UK, Wales, below Ffostrasol. 200m. Mixed deciduous woodland on acid soil. (May or may not be native, though the distribution fits other Pyreneans, but certainly now wild. Dwarfier than populations we have seen in the Pyrenees, at about 60cm., with bright yellow, brown-spotted, turkscap flowers above close-packed, narrow leaves.) (10+) **B**
- 687.950 : MUSCARI ANATOLICUM** * Turkey, Konya, Sultan Dag. 1760m. Exposed limestone ridgetop. (Appears to be this tiny, recently described species, rather like *M. discolor* in its open-mouthed, white-tipped flowers but easier to flower here.) (15+) **C**
- 688.002 : MUSCARI ARMENIACUM** * Turkey, Gaziantep. Ex a N. Stevens coll. (From a fine, royal-blue form.) (20+) **A**
- 688.101 : MUSCARI AUCHERI** * Turkey, Bolu, near Abant Golu. 1000m. Ex N. Stevens 2541 (A striking bicoloured form of this easily grown species. Mid-blue and white flowers over short, neat foliage. From a cool, moist part of Turkey.) (20+) **A**
- 688.205 : MUSCARI AZUREUM** (Subgen. *Botryanthus*) * Turkey, Kahramanmaras, S of Goksun. 1240m. Ex R. & R. Wallis 93-28 (A very local plant, occurring sporadically in central Turkey. Dense, ovoid racemes of open-mouthed, sky-blue bells on 10cm. stems. Represented in cultivation by an atypical clone. The true wild species does not proliferate vegetatively and needs care.) (15+) **D**
- 688.600 : MUSCARI CAUCASICUM** * Turkey, Kars, SSW of Sarikamis. 1800m. Stony, igneous slopes. (Very handsome *Leopoldia*, extending across Transcaucasia to NW Iran. About 30cm. high in this form. Striking, amethyst-violet sterile flowers.) (15+) **A**
- 689.050 : MUSCARI aff. COMOSUM** * Greece, Ioanina, N of Konitsa. 800m. Clay over shale. (Will not key-out as *M. comosum* as the bulb tunics are not pink but otherwise similar. We dissuaded Kit Tan from describing it as a new species.) (15+) **A**
- 689.450 : MUSCARI GRANDIFOLIUM** (Subgen. *Botryanthus*) * Morocco, Middle Atlas Mts., above Ifrane. 1700m. Red clay on limestone. (Not unlike a large version of *M. latifolium*, but best with some protection as flowers & foliage can be damaged outside, though the bulbs are totally hardy. Fine heads of blue-black flowers from china-blue buds. 20-30cm.) (20+) **B**
- 689.800 : MUSCARI LATIFOLIUM** * Turkey, Balikesir, Kaz Da. 1200m. Openings in coniferous woodland. (A very local species but an easy 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**

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

- 689.040 : MUSCARI MCBEATHIANUM** * Turkey, Adana, ENE of Tufanbeyli. 1200m. Open areas among *Pinus* in moist, fine sand. (Racemes of open-mouthed, ice-blue to white flowers from porcelain-blue buds on 10cm. stems. A charming, delicate and none-too-easy little species we discovered in 1985 and which was named by Kit Tan in 1988 in honour of our old friend Ron McBeath, at that time responsible for growing *Muscari* at the RBG Edinburgh. Needs careful watering in the alpine-house.) (20+) **D**
- 690.150 : MUSCARI MIRUM** (Subgen. *Leopoldia*) * Turkey, Mugla, SE of Altinyayla. 1650m. Open, stony slope on serpentine ridge. (Recently described & distinct in flower, foliage & seed. Subtle rather than spectacular in dull gold & purple. Not an easy species to maintain and grow well in our experience, it needs care in watering and must be hand-pollinated to set seed.) (10) **E**
- 690.201 : MUSCARI MUSCARIMI** * Turkey, Burdur, W of Yesilova. 1280m. Loose, serpentine talus on open slope. (Local, SW Turkish endemic, always on serpentine in our experience. Grey-green leaves & racemes of greyish-ivory flowers opening from purple-brown buds. Famously scented (deliciously different to *M. macrocarpum*) & esteemed for this for over 200 years.) . . (10+) **C**
- 690.550 : MUSCARI PALLENS** * Russia, N Ossetia, near Holst. 2400m. Rock crevices. Ex RP 83-27 (A most distinct, very beautiful & local plant from the mountains of the northern Caucasus. One of the latest species to flower with us. Allied to *M. pseudomuscari*, with 15cm. stems bearing compact heads of open-mouthed, palest ice-blue or creamy white flowers.) (15+) **D**
- 690.700 : MUSCARI PSEUDOMUSCARI** (Subgen. *Botryanthus*) * Iran, Mazandaran, S of Chalus. 1500m. Ledges on limestone cliffs. (A lovely endemic of the Chalus gorge on the wetter, Caspian slope of the Elburz, described as *M. chalusicum* in the 1960's, though *M. pseudomuscari* has priority. Refined heads of china-blue bells, open at the mouths, not pinched in.) (15+) **B**
- 691.200 : MUSCARI TENUIFLORUM** (Subgen. *Leopoldia*) * Turkey, Kayseri, S of Pinarbasi. 1200m. Limestone fissures. (To 50cm. high & distinct from *M. caucasicum* & *M. comosum* in the black teeth of the fertile perianths. Violet sterile flowers.) . (15+) **A**

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

Unlike most of the main genera of 'bulbs' in this section, 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. A great many of the original wild collections from which the following cultivated seed has been grown, were made by John

Blanchard (JWB), whose lifetime's work with this genus is unrivalled. We follow the nomenclature used in his monograph, 'Narcissus - A Guide to Wild Daffodils', 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.

- 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 &, after over 60 years, still rare in cultivation, where it is by no means easy to grow. Sweetly scented, creamy white jonquils carried singly on 15cm. stems. Distinct from the *N. rupicola* group in its deeper, cup-shaped corona & in the arrangement of the anthers, it most resembles a white version of *N. cuatrecasatii*.) (8) **E**
- 694.800 : NARCISSUS BUJEI** * Spain, Cordoba, Sierra de Cabra. Ex JWB 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 at specific level in one of the latest Spanish floras. About 30cm. high with concolorous yellow flowers.) (10) **D**
- 696.250 : NARCISSUS BULBOCODIUM var. NIVALIS** * Spain, Avila, Sierra de Gredos, NE of Pico Almanzor. 1800m. In turf on steep, open slopes. (A miniature alpine hoop-petticoat with bright-yellow flowers & thready, upright foliage.) . . . (20+) **B**
- 696.410 : NARCISSUS BULBOCODIUM subsp. OBESUS** * No data. From a very fine, free-flowering form grown by D. Batterham. Dark leaves & rich soft-yellow flowers with large, satisfyingly obese, horizontal coronas. Good outside in UK gardens. (10+) **C**
- 696.600 : NARCISSUS BULBOCODIUM var. PALLIDUS** * Morocco, High Atlas, Tizi Gourane above Amizmiz. 1800m. Schist fissures. (Cultivated seed from our 1982 coll. Recently named *N. jacquemondii*, (q.v.), by Fernandez Casas.) (15+) **C**
- 696.700 : NARCISSUS BULBOCODIUM subsp. PRAECOX** * Morocco, High Atlas Mts., Moulay Brahim gorge below Asni. 1000m. Humus-filled pockets on limestone boulders. (A robust & distinct race. Big, soft-yellow flowers with narrower, more funnel-shaped trumpets than similarly coloured *N. romieuxii* forms, in late winter or earliest spring. Alpine-house in UK.) . . . (10+) **C**
- 696.701 : NARCISSUS BULBOCODIUM subsp. PRAECOX** * Morocco, Atlas, Tizi-n-Test. Ex R. & R. Wallis 88-26 (10+) **C**
- 698.251 : NARCISSUS BULBOCODIUM var. TENUIFOLIUS** * Portugal, Oliveira do Hospital. Ex Salmon & Blanchard 185. (Vigorous, floriferous, deep yellow, dwarf hoop-petticoat with dark, thready leaves. Excellent alpine-house plant.) . . (15+) **B**
- 699.500 : NARCISSUS CALCICOLA** * Portugal, Algarve, Benafin. Ex JWB 90-09. (A tidy, little relative of *N. scaberulus* in Sect. *Apodanthae*, endemic to Portugal & of very restricted distribution in the wild. Glauous keeled leaves & 15cm. stems with 2-5 flowers with cup-shaped coronas & entirely of a rich, deep yellow. A choice species seldom seen in cultivation.) (10+) **E**

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

- 699.807 : **NARCISSUS CANTABRICUS** (subsp. *cantabricus*) * Morocco, Djebel Zerhoun. Ex a T. Norman coll. (An excellent, reliable, free-flowering form. Profuse, pure-white hoop-petticoat flowers in early winter brighten the alpine-house.) . . . (10+) C
- 699.830 : **NARCISSUS CANTABRICUS** var. **FOLIOSUS** * No data. Seed from Ivor Barton's stock, long-cultivated under this name. A fine plant for the alpine-house, flowering in late winter with a profusion of white hoop petticoats. (15+) C
- 699.845 : **NARCISSUS CANTABRICUS** subsp. **MONOPHYLLUS** * Spain, Sierra de los Filabres. Ex JWB 86-14. (John is convinced that this is distinct : flowers "uniformly icysparkling white & single leaves, threadlike, sinuous & prostrate.) (15+) D
- 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
- 700.000 : **NARCISSUS CORDUBENSIS** Spain, Malaga, Serrania de Ronda, SW of Ronda. J.W. Blanchard 99-15. (A fine, scented, deep yellow jonquil, near *N. fernandesii*, with up to 3 flowers on 20-30cm. stems. Pots or the bulb-frame.) (10+) C
- 700.002 : **NARCISSUS CORDUBENSIS** * Spain, Cadiz, Grazalema to Ubrique. Ex a J.W. Blanchard coll. (A fine, scented, deep yellow jonquil, near *N. fernandesii*. 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 primulimus*.) . . . (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
- 700.321 : **NARCISSUS DUBIUS** * Spain. Ex M. Salmon 528. No further data. (Smallest of Section *Tazzetae*, sometimes separated into its own Subsection *Dubiae*, & thought to have originated from a hybrid between *N. papyraceus* & *N. assoanus*. An attractive little, white-flowered miniature tazetta, which seldom sets much seed & remains little-known in cultivation.) (10+) D
- 700.980 : **NARCISSUS EUGENIAE** * Spain, Teruel, Montes de Tarascon above Valdolinares. 1500m. In turf. Ex JWB 87-14 (From a type-locality coll. of this dwarf, snow-melt trumpet daffodil, opening its yellow flowers on very short stems. Currently included as a subsp. of *N. pseudonarcissus* & beautifully illustrated on p. 73 of John's monograph.) (8) E
- 701.004 : **NARCISSUS FERNANDESII** * Puebla de Don Rodrigue. Ex JWB 86-01. (10+) C
- 701.020 : **NARCISSUS FERNANDESII** * No data. From several J.W. Blanchard colls. of this yellow jonquil, distributed locally along the drainage of the Tagus. A poorly defined species in a confusing group but all variations are worthwhile.) (20+) B
- 701.850 : **NARCISSUS JACQUEMONDII** (see also 696.600 : *Narcissus bulbocodium* (subsp. *vulgaris*) var. *pallidus*) * Morocco, High Atlas Mts., Asni to Amizmiz. Ex a J.W. Blanchard coll. (From a type-locality coll. of this recently named little hoop-petticoat. A good alpine-house plant with pale to deeper primrose flowers in early spring later than *N.b.* subsp. *praecox*.) (15+) D
- 701.870 : **NARCISSUS JEANMONODII** (*N. bulbocodium* subsp. *nivalis* as applied by Maire in 'Flore de l'Afrique du Nord') * Morocco, High Atlas Mts., above Tizi-n-Tichka. 2000m. In turf. (Previously listed under 696.200 as *N. b.* subsp. *nivalis* of Maire, this is a dwarf, snow-melt plant of the High Atlas, While we did not anticipate anyone describing it at specific level, it is a distinct race with broad, prostrate, glossy foliage & brilliant yellow, upward-facing flowers with much exerted anthers.) (15+) B
- 701.910 : **NARCISSUS JONQUILLA** * Spain, Cordoba, Sierra de Cabra. Ex JWB 87-12. (An excellent yellow jonquil, which grows well outside in the open garden with Dinah Batterham (Dorset, UK). Rewarding under glass as well, of course.) (10+) C
- 701.980 : **NARCISSUS JONQUILLA** var. **MINOR** * Spain, Ciudad Real, SE of Almaden. Ex J.W. Blanchard 86-03 (Previously listed by us under 701.050 as *N. aff. fernandesii*, this is a splendid plant, originally from an isolated colony mentioned on p.83 of John's monograph. Mike Tucker (Somerset, UK) writes "stunning" : up to seven, large, yellow flowers.) (10+) D
- 701.981 : **NARCISSUS JONQUILLA** var. **MINOR** * Spain, Cordoba, N of Andujar. Ex a T. Norman coll. (10+) D
- 702.100 : **NARCISSUS LONGISPETHUS** * Spain, Albacete, Sierra de Alcaraz. Ex JWB 86-17 (This & *N. nevadensis* differ from all other trumpet daffodils in having 2-4 flowers per stem. In a wet, rich site in nature, this has been recorded approaching 2m. in height but expect much less in cultivation. It will possible be happiest outside in the UK. Ascending yellow trumpets.) (10+) D
- 702.102 : **NARCISSUS LONGISPETHUS** * Spain, Jaen, Sierra de Cazorla. Ex JWB 86-16 (Pale form.) (10+) 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. longispethus* & generally best outside in the UK. Differs from *N. longispethus* mainly in its white & pale yellow, bicoloured flowers. Usually about 30cm. high.) (15+) C

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

- 702.472 : NARCISSUS NOBILIS** * Spain, Leon, Puerto de San Glorio. Ex an A. Edwards coll. (A splendid, bicoloured trumpet-daffodil from N Portugal & N Spain, where it can occur in extensive colonies. Ascending flowers with white segments surrounding deep-yellow coronas on 50cm. stems. Differs in several characteristics from *N. bicolor* and is seldom seen in cultivation.) (8) **B**
- 702.500 : NARCISSUS OBVALLARIS** UK, Wales, below Ffostrasol. 150m. Open grassland & deciduous woodland. (Our lovely, local Welsh trumpet daffodil. Really an imaginary taxon but generally, if not consistently, different to more eastern British colonies of *N. pseudonarcissus* in its horizontal to upward-facing flowers which tend to be concolourous rather than bicoloured.) . . . (20+) **B**
- 702.680 : NARCISSUS PANIZZIANUS** * Spain, Cadiz, near Grazalema. (An excellent, dwarf, white tazetta. The name (originally applied to a NW Italian plant) may or may not be correctly applied. Successive stems, 30cm. or less high, bearing clusters of up to 8, scented, white flowers. For decades, grown by John Blanchard outside in Dorset, in a bed against a S-facing wall.) . . (10) **C**
- 702.702 : NARCISUS PAPYRACEUS** * Cyprus. Ex a C.C. Mountfort coll. (A fine, vigorous tazetta, long grown by John Blanchard as *N. pachybolbus*. Possibly most safely labelled *N. papyraceus* Cyprus form. Clusters of 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**
- 705.200 : NARCISSUS ROMIEUXII** var. **RIFANUS** * Morocco, Rif Mts., Iguermalet. Ex J.W. Blanchard 89-28 (From authentic material of this delightful, pale-yellow hoop-petticoat, proving to be a good grower under glass in the UK.) (15+) **B**
- 705.405 : NARCISSUS ROMIEUXII** subsp. **ALBIDUS** var. **ZAIANICUS** * Morocco, Zaian Mts., near Oulmes. Ex JWB 89-23. (Wild collected seed from this moist, lower altitude locality has produced an amazing range of forms, including some really splendid clones - possibly a group of hybrids or intergrades, like the Ifrane *N. romieuxii* population. The name is probably not worth much botanically - pick out a pale yellow one to call *N.r.a.* var. *zaianicus*! A diversity of creams & soft citron yellows.) . . . (15+) **B**
- 705.500 : NARCISSUS RUPICOLA** (subsp. *rupicola*) * Spain, Avila, Sierra de Gredos, NE of Pico Almanzor. 1800m. In turf on open slopes. (A neat member of Sect. *Apodanthae* with flat, clear-yellow flowers & glaucous leaves. A plant of acid soils in nature, this is a rather choice, small, high altitude representative of the type-race and one of the last *Narcissus* to flower with us.) (10+) **C**
- 705.520 : NARCISSUS RUPICOLA** * No data. Derived from stock grown by John Blanchard's father. Its origins are unknown but it has always been designated as 'Early Form'. Flowering a month before the preceding, this is a slightly larger plant and increases more vegetatively. It may have a more southern or lower elevation origin or it may be a form of *N.r.* subsp. *marvieri*.) (10+) **C**
- 705.600 : NARCISSUS RUPICOLA** subsp. **MARVIERI** * Morocco, Middle Atlas, S of Ksar-el-Ksiba. 1700m. N-facing, limestone slope with *Quercus* & *Cedrus*. (The yellow race endemic to Morocco. Larger & flowers earlier here than the Spanish race but not quantifiably different. Not so easy in our experience. Needs careful watering & a warmer, drier rest in summer.) (10+) **C**
- 705.701 : NARCISSUS RUPICOLA** subsp. **WATIERI** * Morocco, High Atlas Mts., above Tizi-n-Tichka. 2300m. Moist or shaded sites on rocky slopes. (One of the most beautiful of wild daffodils. The incomparable, crystalline-white race from the great massifs of the central High Atlas. We have only found it on acid soils. Grow it cool & never bake it when dormant.) (10+) **C**
- 706.621 : NARCISSUS TAZETTA** (subsp. *tazetta*) Italy, Sicily, Mte. Peloritani. 1100m. (NE Sicilian tazettas we have seen have been of superlative, classic form : see the frontispiece of John Blanchard's monograph (Plate 2) from the adjacent Madonie Nebrodi : 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 Sect. *Ganymedes* : this type-race is from NW Spain & adjacent N Portugal. Not the easiest to grow : a cool site in acid, sandy soil seems the ideal in the UK. (15+) **B**
- 707.700 : NARCISSUS VIRIDIFLORUS** Morocco, W of Tetouan. M. Jacobi coll. (Almost always flowering without leaves, the umbels of up to 5, heavily scented, rather bluish, olive-green flowers open in autumn on 20cm. stems. A low altitude, coastal plant of heavy soils distributed from here in Morocco, S to near Agadir on the Atlantic. Not easily grown, under glass of course, in the UK, possibly due to low light intensity in winter. Needs a long, warm summer rest and plenty water when in growth.) (10+) **E**
- 709.010 : NECTAROSCORDUM SICULUM** (subsp. *siculum*) * No data. Tall, handsome *Allium*-relative from the W Mediterranean area. Stems of about 1.2m. carry umbels of drooping creamy bells, tinged with green & flushed with pink. Easy. (15+) **A**
- 738.100 : ORNITHOGALUM ARCUATUM** * Turkey, Van, W of Yukari Narlica. 2200m. Stony alluvium in dried river bed. (A tall, handsome species, in effect a giant version of *O. narbonense*, distributed from E Turkey into NW Iran & N Iraq. Cylindrical racemes of many white flowers, with green fascia outside, on 1.5m. stems. Restrained but quite easy outside in the UK.) (20+) **B**
- 709.502 : PANCRATIUM ILLYRICUM** * France, Corsica, Venaco SSE of Corte. c.500m. Ex an A. Edwards coll. (A splendid bulb in *Amaryllidaceae*, endemic to Corsica & Sardinia. Slow from seed but hardy in the UK. We grew it in Dorset : its spectacular umbels of exquisitely sweet-scented, white 'lilies' on 30cm. stems always drew the attention of all who saw it.) (5) **E**
- 809.500 : RANUNCULUS ABNORMIS** * Spain, Avila, Sierra de Gredos, NE of Pico Almanzor. 1800m. Among rocks in melt-water gulleys. (A beautiful, tuberous-rooted species, which goes dormant as the ground dries in summer. Branching, 10cm. stems with many varnished, lemon-gold buttercups, each with up to 10 'petals', from tufts of grassy foliage. Choice but not difficult.) . . (20+) **D**

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

- 815.250 : RANUNCULUS GELIDUS** * Kazakhstan, Tien Shan. Ex an H. Fuchs coll. (A Central Asian snow-melt species, described by Sampson Clay as "a dwarf & delicate plant of alpine screes." Numerous broad, usually white petals.) (20+) **E**
- 816.010 : RANUNCULUS GRAMINEUS** * No data. Maybe the best garden-plant among the summer-dormant buttercups though a very local SW European species. Neat tufts of linear, greyish leaves & bright-yellow flowers. 30cm. Hot & dryish.) . . (20+) **B**

Romulea : neglected cousins of Crocus

- 827.109 : ROMULEA BULBOCODIUM** * Morocco, High Atlas Range, Tizi-n-Test. Ex an R.& R. Wallis coll. (15+) **B**
- 827.150 : ROMULEA BULBOCODIUM** * No data. The form grown in the garden at Knightshayes in Devon. A very fine, vigorous, comparatively hardy form of this widespread, extremely variable, Mediterranean species. Grassy leaves & big rich-violet crocus-like flowers with yellow throats in spring. Good outside, in the S of Britain at any rate, it even does quite well here (20+) **B**
- 827.151 : ROMULEA BULBOCODIUM** * No data. A excellent, late-flowering form, which, as far as we can ascertain, was originally passed round by that excellent plantsman Cedric Morris and continues to circulate among a few enthusiasts. (15+) **B**
- 827.310 : ROMULEA CLUSIANA** (*R. bulbocodium* complex) * Gibraltar. Ex a J. Hulme coll. (The wide-ranging *R. bulbocodium* defies attempts to divide it up into races & the current botanical fashion is one of despair. Nevertheless some plants from SE Spain, which have been called *R. chusiana*, are particularly splendid & desirable horticulturally with large flowers in rich violet with extensive yellow-orange centres. Not likely to be so good in the garden as the preceding two but the one for the alpine-house.) (15+) **C**
- 827.410 : ROMULEA CROCEA** (*R. bulbocodium* var. *crocea*) * Turkey, Antalya. 1100m. Damp meadow. Ex a R.& R. Wallis coll. (From Bob & Rannveig's award winning form of this spectacular race, usually from below 900m. on sandy soils in small areas of SW Turkey & W Syria. Exceptional among the northern hemisphere species in its wholly yellow flowers.) (15+) **C**
- 827.610 : ROMULEA LEICHTLINIANA** (*R. bulbocodium* var. *leichtliniana*) * No data. A race of sporadic distribution in the E Mediterranean region, usually below 600m. in oak scrub. Most frequent in Greece and the Aegean islands but extending E to Hatay in Turkey. White flowers, usually marked externally with purplish shading and with yellow throats, over a long period (15+) **C**
- 829.505 : ROMULEA LINARESII subsp. GRAECA** * Greece, Evia. Ex Christian, Elliott & Hoog 620. (The Aegean race with pointed segments to the concolourous, violet, crocus-like flowers. The type-race is endemic to Sicily.) (20+) **B**
- 830.300 : ROMULEA REQUIENII** * France, Corsica, W of Calvi, Pointe de Revellata. 10m. Hard, dry, gravelly areas among low, coastal maquis. Ex an A. Edwards coll. (The first species in this genus we saw flowering (a very long time ago in early April, 1962, in this very site) and one of the most attractive Europeans. Short prostrate leaves & almost stemless flowers wholly in a most intense violet, except for the bright yellow anthers. "A super little plant, much admired", writes Rannveig Wallis.) (15+) **D**

Scilla : alpiners from the Taurus & the Caucasus

- 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**
- 872.603 : SCILLA AUTUMNALIS** * UK, Devon, Plymouth Hoe. (Local British native form from a romantic site.) . . . (20+) **A**
- 873.210 : SCILLA BITHYNICA** * No data. An attractive plant for the open garden, which sows itself here in our heavy, acid clay. Native to low altitudes along the wet, Black Sea coasts of Bulgaria & NW Turkey, with 20cm. racemes of starry, blue flowers in spring. Seed from both pale-blues & whites with navy-blue anthers. They look well intermingled.) (20+) **A**
- 873.650 : SCILLA GREILHEUBERI** * Iran, Mazandaran, S of Chalus. (Previously listed as the allied *S. hohenackeri*, research by Brian Mathew indicates that the name was misapplied to these 1960's collections. This is Paul Furse's 'Caspian Bluebell'. Early-flowering with delightful, soft violet-blue flowers with reflexed segments. Often grows in quantity in the crevices of large, limestone boulders in the Caspian woodlands. Hardy in the UK but the flowers are better protected from the winter-weather.) . . (15+) **B**
- 873.800 : SCILLA HYACINTHOIDES** * Turkey, Siirt, between Kurtalan & Besiri. 500m. Wet meadows & streamsides. Ex a N. Stevens coll. (Seldom seen in gardens but a tall handsome species, occurring locally & sporadically through southern Europe to N Iraq. Stout stems up to 1m. high carry cylindrical racemes of about 100, starry, pale-margined, violet-blue flowers.) . (15+) **B**
- 874.030 : SCILLA INGRIDAE var. TAURICA** * Turkey, Adana, N of Saimbeyli. 1300m. Ex R.& R. Wallis 93-33. (A beautiful little plant which seems to fit into Speta's recently described taxon. The arillate seeds (an important factor in identifying this difficult genus), however, would indicate that it is a member of the *S. siberica* group & has little to do with *S. ingridae*.) . . . (15+) **D**
- 874.400 : SCILLA LILIO-HYACINTHUS** * France, Hautes-Pyrenees, N of Col du Pourtalet. 1500m. Deciduous woodland. (A distinct plant, especially in its loosely scaled bulbs, distributed from SE France into N Spain. An easy garden-plant in the cool climate of the UK. Its lush, glossy leaves always attract attention, even without the 30cm. racemes of soft-blue stars.) (15+) **A**

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

- 874.800 : SCILLA LITARDIERI** * Bosnia & Hercegovina, above Dubrovnik to Trebinje. 500m. Fragmented limestone. (Heads of starry, pale-blue flowers on 20cm. stems. A lovely plant, local in nature but hardy in a sunny site in the UK.) (15+) **A**
- 875.000 : SCILLA MELAINA** * Turkey, Hatay, E of Belen. 1300m. Fissures on & at base of limestone cliffs. (More or less endemic to the Amanus Mts. Little known but excellent & trouble-free under glass here. Seems quite hardy in the UK & may even prove a fine garden-plant. Possibly closest to *S. mischtschenkoana* (*S. tubergeniana*) but with prussian-blue flowers.) (15+) **C**
- 875.200 : SCILLA MESSENIACA** * Greece, Messinia, S of Kardamili. 30m. In shade, among limestone rocks. (Very local & confined to the tail-end of the Taigetos but seems totally temperature-hardy here. Racemes of pale-blue, starry flowers. 20cm.) (15+) **B**
- 875.605 : SCILLA MORRISII** * Cyprus, Paphos district. 700m. Moist, shaded crevices & banks, under *Quercus*. Ex D. Meikle 4015. (A very local Cyprus endemic. About 10 cm. high with erect racemes of 3-5, campanulate flowers in milky-white tinged with lilac & with pale-blue anthers. We hope to see this attractive & genuinely rare species well-established in gardens.) (15+) **E**
- 876.502 : SCILLA PERSICA** Iran, Kordestan, ESE of Sanandaj. 1800m. Wet hay-meadow. (A fine plant, little known in gardens but which should be very hardy & growable outside in the UK, as it usually inhabits subalpine meadows which are very wet in spring. It contributes to a magnificent spectacle, growing in huge numbers in marshy areas with species like blue-black *Bellevalia pycnantha* & purple *Gladiolus* & *Dactyloctenium* species. Up to 50cm. high with racemes of up to 50 soft-blue flowers.) (15+) **C**
- 876.810 : SCILLA PERUVIANA** * No data. A handsome W Mediterranean species, usually hardy & easily grown in any good soil in a warm, sunny border in the UK. Wide racemes of rich violet-blue flowers on stout, 50cm. stems in late spring. (15+) **A**
- 877.559 : SCILLA ROSENII** Georgia, Bakuriani area, Tskhra-tskharo pass. 2300m. Alpine meadows. (Wild-collected seed of this very beautiful, high altitude, snow-melt species. Not the easiest to grow at low elevations, appearing very late with us and resenting high temperatures & summer drought. Large pale-blue flowers with segments reflexing like an *Erythronium* flower.) (15+) **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**
- 879.015 : SCOPOLIA CARNIOLICA subsp. HLADNIKIANA** * No data. A fascinating woodland plant in the *Solanaceae*, recorded in very local, widely separated colonies from Lithuania to the Ukraine. In a handful of sites in the karst country of Slovenia, this beautiful, translucent yellow colour phase occurs among the usual dark reds. Called *S.c.* subsp. *hladnikiana*, a name sensibly disregarded by 'Flora Europaea' but useful for gardeners to distinguish it. Big horizontal rhizomes, like flattened potatoes, spread slowly on the surface and in early spring send up stout stems of cylindrical bells on thready pedicels, before the leaves expand. The flowers open near the ground but the stems elongate to about 50cm. to carry large potato-leaves in summer.) (10) **D**
- 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**
- 933.620 : STERNBERGIA SICULA** * No data. One of the finest of all autumn-flowering bulbs. Great, rich-yellow, crocus-like goblets rising in short stems before or with the narrow, strap-shaped, dark green leaves. For a dry, sunny site in the UK (10) **C**

Tulipa : the most flamboyant of bulbs

- 969.205 : TULIPA ARMENA** (var. *armena*) * Turkey, Gumushane, Kose Dag. 1900m. Steep, open, gravelly slopes. (The eastern, NE Turkish, race of this magnificent scarlet tulip. Separated from the next & *T. julia* mainly on the characters of the hairs of the bulb-tunic, these are all highly variable in the external colours of their red flowers & the internal markings.) (15+) **C**
- 969.252 : TULIPA ARMENA** var. **LYCICA** * Turkey, Antalya, N of Akseki. 1400m. Steep, limestone slopes with *Quercus* & *Pinus*. (The western race : absolutely stunning red flowers with central black blotches & glaucous, undulate leaves. 15cm.) (15+) **B**
- 969.460 : TULIPA BIFLORIFORMIS** * No data. Originally from the Gothenburg Botanic Garden stock of this Central Asian species. Distinct, dwarf, dainty & attractive with multi-flowered stems carrying many, starry, white, yellow-centred flowers. (15+) **C**
- 969.600 : TULIPA CRETICA** * Greece, Crete, Hania, Akrotiri NE of Hania. 100m. Terra rossa. Ex a P. & P. Watt coll. (A tiny tulip, endemic to Crete, best appreciated in an alpine-house pot. Its diminutive stature easily separates it from other Cretan tulips. Starry white flowers, tinged with pink & grey-green outside & with yellow bases, on stems less than 10cm. high. (15+) **C**
- 969.601 : TULIPA CRETICA** * Greece, Crete, Mt. Dikti, E face. (Norman Stevens' pale-pink, non-stoloniferous form.) (15+) **E**
- 969.902 : TULIPA HETEROPHYLLA** Kyrgyzstan, Terskey Alatau, S of Barskoon. 2870m. A. Dickerson 00-42 (A member of a group of Central Asian tulips with long, beaked capsules & untuliplike seeds, which have been separated into both *Orythia* & *Eduardoregelia*. Very dwarf. Yellow flowers with dark exteriors. Illustrated in this locality in Rix & Phillips p. 117.) (10+) **E**
- 970.220 : TULIPA HUNGARICA** * No data. Seed from a plant grown as the S Bulgarian *T. urumoffii* (which is probably the same as *T. rhodopea*) but which seems a little robust for this and may come nearer to *T. hungarica* (a name which some botanists consider should cover all these Balkan taxa anyway), so its seems best to include it here. These SE European tulips, like others in the *T. gesnerana* group, are a confusing lot. This is about 25cm high with fine yellow flowers, sometimes with a red fleck. (10+) **D**

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

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

- 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. (10+) C
- 970.401 : **TULIPA aff. JULIA** * Turkey, Hakkari, Zab gorge S of Hakkari. 1300m. Steep stony slope below NE-facing cliffs. (Raised from seed collected in 1986 under our field number 7673, this does not match the *T. julia* populations higher up the Zab at Bagisli. The scarlet tulips are such a taxonomic nightmare that it seems most appropriate to place it under this species. It usually also has more pointed outer segments & may or may not have the central, black blotch rimmed with yellow.) (10+) C
- 970.600 : **TULIPA MICHELIANA** Iran, Khorasan, Bojnurd, E of Chaman Bid. 1300m. Limestone talus on open slope. (The stunning, short-stemmed, scarlet tulip of NE Iran & S Turkestan with glaucous, wavy-edged, maroon striped foliage.) (10) E
- 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
- 971.410 : **TULIPA SPRENGERI** * No data. Found last century near Amasya in N Turkey & now thought to be extinct in the wild. Very much alive in cultivation. The best garden-plant in the genus for the UK, often sowing itself freely. Likes a good, heavy, slightly alkaline soil but is accommodating. Elegant, scarlet-orange, olive-green-backed flowers in June, later than any other. (20+) A

Tulipa : Unidentified Collections from Iran & Kyrgyzstan

- 16702 : **TULIPA SP.** Iran, Qazvin, S of Lowshan. 600m. Stony clay on open slopes. (10+) D
- 16711 : **TULIPA SP.** Iran, Zanjan, NW of Zanjan. 1250m. Sandy clay & gravel hills in river valley. (10+) D
- 16848 : **TULIPA SP.** Iran, West Azerbaijan, between Agh Bolagh & Sangar. 1500m. Rocky slopes. (10+) D
- 16868 : **TULIPA SP.** Iran, Kordestan, NW of Divandarreh. 2000m. Gravelly clay slopes. (15+) D
- 16891 : **TULIPA SP.** Iran, Kordestan, SW of Negel (Sanandaj to Marivan). 1350m. *Quercus* scrub on shale. (15+) D
- 16911 : **TULIPA SP.** Iran, Kordestan, ESE of Sanandaj. Steep rocky slopes with diverse steppe vegetation. (10+) D
- 17131 : **TULIPA SP.** Iran, Khorasan, Bojnurd, E of Tang Rah. 1200m. Limestone talus on steep slopes. (15+) D
- 17193 : **TULIPA SP.** Iran, Markazi, SW of Arak. 2200-2300m. Open, rocky slopes. (15+) D
- 17200 : **TULIPA SP.** Iran, Markazi, SW of Arak. 2200-2300m. Open, rocky slopes. (15+) D
- A. Dickerson 00-43 : **TULIPA SP.** Kyrgyzstan, Talas Alatau, S of Klyuchevka, Kara Bura pass. 3215m. (10+) D
- A. Dickerson 00-44 : **TULIPA SP.** Kyrgyzstan, Kyrgyz Alatau, S of Bishkek, Ala Archa. 2270m. (10+) D
-

There are going to be some really splendid plants among these unidentified tulips : don't ask us to guess names when they are not in flower. We shall be glad to send four packets of the larger ones or four packets of the smaller ones for £10.00 or \$15.00 : **our choice only**. Just ask for 'large' or 'small'

Species from North America : Seeds from Jim & Jenny Archibald

We have been collecting in North America again this summer and seeds from the West will feature in our next list : summer-dormant genera will include *Allium*, *Calochortus*, *Dichelostemma*, *Triteleia*, etc. We list only our wide range of *Erythronium*, *Fritillaria* and *Trillium* seeds now for immediate sowing.

- 1.306.250 : **DICENTRA FORMOSA : CREAM FORM** Cal., Humboldt Co., N of Weitchpec, Bee Mt. 900m. Steep, loose bank in coniferous forest zone. (A very striking plant, as distinct in its own way, as *D.f.* subsp. *oregana* & from a similar habitat, quite a long way S from Oregon line. Rather coarsely cut foliage in deep bluish green, rather than grey-green, and masses of creamy ivory flowers pendant on 20cm. stems. This is a fine plant of which we have a good, fresh seed collection. Try it! We certainly shall.) (20+) C
-

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

Erythronium :

We list here an unprecedented range of seed from the western members of this fashionable genus, in spite of a very poor season for these early flowering plants. Most grow in well-drained habitats usually in light shade. When areas are hot & dry in summer, the corms are likely to be growing deeply among stones, where soil-temperature & moisture remain constant. Their preference for serpentine areas is marked - singularly inhospitable, infertile soils, deficient in nitrogen, phosphorous & calcium, with high concentrations of magnesium. We suggest caution in attempting these in pure peat - a mix of half granite chippings and half sphagnum peat or leafsoil might be more appropriate. Species from warmer, drier summer habitats might be best in well-drained sites in full sun in cool, wet climates. These may need a summer-rest. All seem remarkably temperature-hardy and many grow surprisingly well in the open garden in wetter climates. Seed of most of the species from California & Oregon will come up easily after a sufficient cool period. Early experience with *E. klamathense*, *E. pusaterii*, *E. pluriflorum* & *E. purpurascens* showed them to be extremely difficult to germinate. (The following comments may also apply

to various races of *E. grandiflorum* & other cold-climate taxa, as well as the Eurasian *E. caucasicum* & *E. sibiricum*, which have also been a problem.) They appeared to require a very long cold period or repeated freezing. This has been verified, wholly independently, in 1996 by John Andrews in California, Art Guppy in British Columbia & Norman Stevens in the UK. They all germinated *E. pluriflorum* & *E. pusaterii* after subjecting imbibed seed to long spells in the refrigerator. Ascertaining the lengths of time & range of temperatures required would require more rigorous scientific experimentation but these are unlikely to be precise. In the latter respect it is worth noting that the seed sown by John germinated at a temperature *below* the freezing-point of water. What would appear to be required is a period of about 6 months at a temperature around 0 C or 32 F. A sensible time to sow (in the northern hemisphere) would be the September to November period to try to obtain germination in March to May the following year. Since we made these suggestions a few years ago, we have, however, received several reports from growers who have germinated such species successfully by conventional treatment outdoors in the UK.

- 1.350.200 : ERYTHRONIUM CALIFORNICUM** Cal., Humboldt Co., SSW of Willow Creek. 1580m. Stony serpentine areas in openings among conifers. (The lovely species of the N Californian Coast Ranges distributed S from here almost to the Bay area. A plant of foothill woodland & pine forest. Beautifully mottled leaves. Creamy white flowers with yellow throats.) (15+) C
- 1.350.204 : ERYTHRONIUM CALIFORNICUM** Cal., Humboldt Co., N of Weitchpec. 400m. Steep, grassy bank. . . (15+) C
- 1.350.400 : ERYTHRONIUM CITRINUM** Oregon, Josephine Co., SW of Selma. 550m. Steep slopes with sparse conifers. (Mottled leaves & white to cream flowers with lemon bases. Restricted to the Coast Ranges on the California-Oregon line.) . . . (15+) C
- 1.350.401 : ERYTHRONIUM CITRINUM** * Cal., Del Norte Co., ENE of Gasquet. 450m. Coniferous woodland. . . . (15+) C
- 1.350.500 : ERYTHRONIUM CITRINUM** var. **RODERICKII** Cal., Trinity Co., Scott Mts., between Tangle Blue Creek & Bear Creek. 1250m. Openings in coniferous forest. (Round the mountain from the type locality, where it is shy-flowering. Listed in 1989 as a form of *E. californicum* with purple filaments (11018). Nearest recorded populations of *E. citrinum*, *E. hendersonii* & *E. californicum* are all about 35km. distant. This may have something to do with all or any of them. It is not recognized as a valid taxon in "Jepson" but the name covers quite a large population and is definitely worth retaining by gardeners.) (15+) D
- 1.351.000 : ERYTHRONIUM GRANDIFLORUM** (var. *grandiflorum*) Utah, Cache Co., above Tony Grove Lake. 2400m. Open slopes with *Artemisia*. (Montane, snow-melt plant with a northern & eastern distribution. Outstanding bright yellow flowers and plain green leaves. Here with red-brown anthers - so far S, it usually has yellow-anthers (subsp. *chrysandrum*)). . . . (15+) C
- 1.351.100 : ERYTHRONIUM GRANDIFLORUM** var. **CANDIDUM** Washington, Whitman Co., Steptoe Butte. 1020m. N-facing slope with sparse *Pinus*. (From the 1906 type-locality of this white-flowered plant. May or may not be the same as *E. idahoense* (q.v.). Isolated here on top of a quartzite butte rising above intensively cultivated palouse country on the Idaho line.) . (15+) E
- 1.351.101 : ERYTHRONIUM GRANDIFLORUM** var. **CANDIDUM** Washington, Whitman Co., Kamiak Butte. 1020m. In mixed coniferous woodland on N-facing slope. (No early records from here but a twin, quartzite butte habitat.) (15+) E
- 1.351.201 : ERYTHRONIUM HELENAE** Cal., Lake Co., SE of Middletown, Butt's Canyon. 450m. Among *Arctostaphylos* chaparral on serpentine slope. J. Andrews coll. (A beautiful, very local species only known from around Mt. St. Helena, in Napa, Lake & Sonoma Cos., quite a densely populated and cultivated area, where few colonies are accessible. With mottled leaves, it is quite near *E. californicum* but has yellow anthers and a definite capacity to increase vegetatively. This has settled down well from our 1989 coll. in this site with pot-cultivation under glass & seems to enjoy a drier summer rest than others.) (15+) D
- 1.351.202 : ERYTHRONIUM HELENAE** Cal., Napa Co., Aetna Springs. 300m. Chaparral. N. Gielegem coll. (15+) D
- 1.351.300 : ERYTHRONIUM HENDERSONII** Oregon, Jackson Co., N of Medford. 400m. Openings among scrub in *Quercus* woodland. (Limited to the Oregon-California border. A superlative, robust species with dark-mottled leaves. Lavender-pink flowers with dark anthers & a purple base, surrounded by a white or yellow zone. Quite easy in a well-drained site in the UK.) (15+) C
- 1.351.301 : ERYTHRONIUM HENDERSONII** Oregon, Jackson Co., Siskiyou Mts. 1030m. Wooded slope. (15+) C
- 1.352.302 : ERYTHRONIUM HENDERSONII** * Oregon, Jackson Co., Jacksonville. 500m. Among *Quercus* scrub . . (15+) C
- 1.352.303 : ERYTHRONIUM HENDERSONII** * Oregon, Josephine Co., SE of Murphy. 350m. Beneath *Quercus*. . . (15+) C

Species from North America : Seeds from Jim & Jenny Archibald

- 1.351.304 : ERYTHRONIUM HENDERSONII** * Oregon, Jackson Co., Siskiyou Mts., SSE of Ashland. 1340m. (15+) **C**
- 1.351.305 : ERYTHRONIUM HENDERSONII** * Oregon, Jackson Co., Siskiyou Mts., W of Pilot Rock. 1500m. (15+) **C**
- 1.351.500 : ERYTHRONIUM HOWELLII** Oregon, Josephine Co., E of Takilma. 670m. Among conifers on open, turfy, stony slopes. (Nearest to *E. citrinum* but with no basal appendages. White flowers turn pink as they age. Mottled leaves.) (15+) **C**
- 1.351.501 : ERYTHRONIUM HOWELLII** Oregon, Josephine Co., above Waldo. 650m Among *Arctostaphylos* scrub & in shade of deciduous *Quercus*. (A type locality of this local plant, only known where the Illinois valley meets the Klamath Ranges. Nearest to *E. citrinum* but with no basal appendages to the anthers. White flowers turning pink as they age. Mottled leaves.) . (15+) **C**
- 1.351.700 : ERYTHRONIUM KLAMATHENSE** Cal. Siskiyou Co., SW of Castle Lake. 1750m. Among scrub & grasses on steep, stony slopes. (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**
- 1.351.702 : ERYTHRONIUM KLAMATHENSE** Oregon, Jackson Co., Siskiyou Mts., W of Pilot Rock. 1550m. (15+) **D**
- 1.352.000 : ERYTHRONIUM MULTISCAPOIDEUM** * Cal., Butte Co., N of Magalia. 600m. Under *Cupressus* on serpentine. G. Greger coll. (Mottled leaves White flowers with pale, greenish yellow centres & white anthers. No close affinities and the only species with stoloniferous corms. These are much dwarfer plants than the following. Maybe best dryish in summer.) . (15+) **C**
- 1.352.100 : ERYTHRONIUM MULTISCAPOIDEUM** (*E. "cliftonii"*) * Cal., Butte Co., S of Pulga. 420m. Steep, open, serpentine scree. (More or less a giant form of the species only known from this one site. Never described botanically but grown in the UK as *E. "cliftonii"*. Proving a good grower. Adaptable and reputedly quite accommodating in the open garden.) (15+) **D**
- 1.352.400 : ERYTHRONIUM OREGONUM** subsp. **LEUCANDRUM** Oregon, Douglas Co., S of Tiller. 460m. Among *Pinus* on steep serpentine slopes. (Race with white anthers, of more limited distribution towards the SE of the range. The white flowers, often maturing to pink, have markings in orange, dark-red or brown around the yellow bases. Superlative.) (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. (Described in 1990, though the first collected in 1907 & misidentified by Applegate & others as *E. purpurascens*. Allied to this with plain green leaves but the 30cm. stems carry up to 10 (exceptionally to 20) nodding, bright yellow flowers, maturing to bronze or pink. Listed in the trade as young plants raised from John's original coll. in 1999.) (15+) **E**
- 1.352.802 : ERYTHRONIUM PURPURASCENS** Cal., Plumas Co., N of Greenville. 1100 m. G. Greger coll. (Plain green leaves & yellow-centred white flowers, purple-tinged with age. The most widespread of this trio, most numerous around the upper drainage of the Feather River, reaching to almost 2500m. A collection made more or less in the type-locality.) (15+) **D**
- 1.353.000 : ERYTHRONIUM PUSATERII** Cal., Tulare Co., Jordan Peak (Sierra Nevada ENE of Porterville). 2774m. Granite rock-falls. J. Andrews coll. (Again described in 1990 - the Purpus coll. of 1895 was placed under *E. purpurascens* & Pusateri's later colls. in *E. grandiflorum*. Like a large *E. purpurascens* with well developed appendages on the segments & a larger yellow centre. The most southern of the westerners, confined to a small area at the sources of the Tule & Kaweah Rivers.) (15+) **E**
- 1.353.100 : ERYTHRONIUM REVOLUTUM** * Canada, British Columbia, Vancouver Is., near Duncan. Ex an A. Guppy coll. (Spread S from here all the way to NW California but essentially a coastal plant, seldom above 1000m., of high rainfall areas. Mottled leaves and sumptuous rose-pink flowers make this one of the most desirable & by far the best in moist UK gardens.) . (15+) **C**
- 1.353.105 : ERYTHRONIUM REVOLUTUM** Cal., Del Norte Co., near Gasquet. c.400m. P. Gustafson coll. (An extremely interesting coll. from one of the few Californian colonies of this splendid species, growing here in the same area as *E. citrinum* with several other species not too far distant. Mottled leaves and rose-pink flowers.) (15+) **C**
- 1.353.120 : ERYTHRONIUM REVOLUTUM** * No data. Fresh 2001 seed from the vigorous stock in Peter Chappell's Hampshire garden at 'Spinners'. These will be in varying shades of pink & may show some hybrid influence. If you just want some good garden-plants for the UK, where this will usually sow itself in shady conditions, this is what you should have. (20+) **B**
- 1.353.250 : ERYTHRONIUM TAYLORI** Cal., Tuolumne Co., Pilot Ridge (Sierra Nevada E of Oakdale). 1340m. Steep, NE-facing metamorphic rock outcrops in conifer-oak forest. (The most recently described (in 1997) among the new species from the Sierra Nevada. These are all allied to *E. purpurascens* and will need similar treatment in cultivation. Locally numerous but so far only known from the type-locality, this can have up to 8, nodding, fragrant, bicoloured flowers, white at the tips and yellow at the bases, on stems of about 30cm. It is distinguished from bicoloured *E. purpurascens* by its much larger flowers with appendages at the bases of the inner segments and from the closely related *E. pusaterii* by its white anthers. It is a lower altitude plant than the latter and apparently shares with the plain yellow *E. tuolumnense*, a capacity to increase vegetatively, forming clumps.) (15+) **E**
- 1.353.300 : ERYTHRONIUM TUOLUMNENSE** * Cal., Tuolumne Co., NE of Columbia. 750m. Steep slopes in deciduous woodland. (Plain green leaves & up to 5, bright-yellow flowers. A low altitude relic, amazingly hardy & easy in European gardens. It is also of limited distribution in the wild, though much more locally abundant than was once thought.) (15+) **C**

Fritillaria : specialists of serpentine scree, granite and adobe clay

About one-fifth of this genus occurs in N America, centred on N California, where it shows much variation within the current concept of each 'species'. Names here mostly follow the account in Jepson. Some of those who know the genus well in California are not impressed by the current treatment of some 'species'. Individual populations of species like *F. affinis* (*F. lanceolata*) and *F. biflora* can look more distinct than many Mediterranean

populations given specific status. While several remain a challenge to specialists, successful cultivation of these plants is much more widespread now than in the past. The basic criterion would appear to be a well-drained, lime-free, low nutrient compost : excess nitrogen should be avoided, especially for serpentine species - please note our comments about the chemical characteristics of this under *Erythronium*.

- 1.370.050 : FRITILLARIA AFFINIS** Oregon, Josephine Co., SW of Selma. 450m. Among volcanic debris on open, S-facing slopes. (Illinois Valley form of this immensely variable group distributed in a great arc from N California to Canada and E to Idaho. Here it is only 15-20cm. high, often single-flowered & the nodding bells are usually yellowish green with a few brown lines.) (15+) C
- 1.370.200 : FRITILLARIA AFFINIS** (*F. lanceolata*) Idaho, Kootenai Co., ESE of Worley. 750m. *Pinus* woodland. (A giant from the NE extremity of the distribution : 60cm. or more high with broadly lanceolate, whorled leaves & up to 8 flowers.) (15+) C
- 1.370.301 : FRITILLARIA AGRESTIS** Cal., Alameda Co., ESE of Livermore. 450m. Among grass on clay slopes. (An adobe-clay plant, the valley-grassland version of *F. biflora*. Once widespread in the Central Valley but now very localised as most of its habitat has been destroyed by agriculture & development. Green-cream bells, purple-brown inside. Up to 50 cm.) (15+) D
- 1.370.403 : FRITILLARIA ATROPURPUREA** Cal., Plumas Co., N of Greenville. 1100m. G. Greger coll. (Creamy bells mottled in purple-brown on stems of about 20cm. More or less an alpine or steppe version of *F. affinis*, distributed in an interior parallel arc E to S. Dakota : here temperatures can go down to -20 F. Narrower-leaved than *F. affinis* with more open bells.) . . . (15+) D
- 1.370.500 : FRITILLARIA BIFLORA** * Cal., San Luis Obispo Co., above San Simeon Bay. 10m. Coastal grassland in sandy clay. (In fine form here, 20-30cm. high with darkest, brown-purple, green-striped bells. Always a coastal plant extending S to around the Mexican border - maybe best grown frost-free but the coast is cool in summer so do not bake it when dormant.) (15+) C
- 1.370.650 : FRITILLARIA EASTWOODIAE** (*F. phaeantha*) Cal., Shasta Co., S of Shingletown. 1000m. Openings in mixed woodland. (A dubious 'species', apparently a stable but fairly recent hybrid between *F. recurva* & *F. micrantha*. Dr. Martinelli describes the elegant bells here as from all red or all apricot to brown-orange edged with yellow and orange with yellow inside. About 50cm. high in the wild but less than 30cm. with us in cultivation. A first-class wild seed collection in 2001.) (20+) C
- 1.370.800 : FRITILLARIA GLAUCA** * Cal., Humboldt Co., SSW of Willow Creek. 1580m. Unstable, serpentine talus on steep, N-facing slope. (Very dwarf, serpentine-endemic of the NW Coast Ranges. Thick, glaucous leaves & nodding bells in yellow through to red-browns in this site. Not difficult to grow. We can offer hand-pollinated 2001 seed from selected clones : yellows are daintier plants than the Mendocino Pass yellow with heavier speckles. If you want these, please specify 'brown' or yellow') . . (15+) D
- 1.370.802 : FRITILLARIA GLAUCA** * Cal., Mendocino Co., Mendocino Pass. 1500m. Serpentine. (Selected yellow) (10+) D
- 1.371.100 : FRITILLARIA LILIACEA** Cal., Marin Co., NW of Nicasio. 15m. Among scrub on low, grassy, coastal hills. (A beautiful species, closest to *F. biflora* & *F. roderickii*, with a very limited distribution in the coastal mist-belt, N & S of San Francisco. Perhaps best kept frost-free in winter & cool in summer. Bright-green leaves & up to 5, pendant, creamy white bells.) (15+) D
- 1.371.101 : FRITILLARIA LILIACEA** Cal., Sonoma Co. 240m. (Possibly from the highest altitude the species reaches.) (10+) E
- 1.371.201 : FRITILLARIA MICRANTHA** Cal., Tuolumne Co., ESE of Groveland. 950m. Mixed woodland. (Robust species of the west-central Sierra Nevada foothills. Up to 10 nodding bells, usually purplish or in paler, greener tones.) (15+) C
- 1.371.500 : FRITILLARIA PINETORUM** Cal., Kern Co., Mt. Pinos. 2650m. Granite grit at margin of *Pinus* woods. J. Andrews coll. (Resembles *F. falcata* in its wide-open, thick-textured, upward-tilted flowers and fleshy, glaucous foliage but these are narrow & channelled. Its shallow bowls are lime-yellow thickly peppered with purple-brown dots & with brilliant orange anthers) (15+) E
- 1.371.520 : FRITILLARIA PINETORUM** Cal., Tulare Co., Jordan Peak. 2770m. J. Andrews coll. (These local, very high altitude plants from the granites of the Sierra Nevada are particularly obscure & have never been grown.) (15+) D
- 1.371.600 : FRITILLARIA PLURIFLORA** Cal., Lake Co., Walker Ridge. 600m. Open, grassy areas in heavy clay. (One of the most distinct & beautiful in the genus, 10-30cm. tall with up to 7, conical bells in a rich, pure unmarked pink. A classic adobe-clay plant from soil that is wet & glutinous in spring but dries like concrete later. A challenge but it has been grown well.) (15+) D
- 1.371.700 : FRITILLARIA PUDICA** Idaho, Butte Co., NE of Carey. 1520m. E & SE-facing slopes of stony ridge. (Nodding, clear-yellow bells, sometimes maturing to orange-red shades, on stems of 20cm. or less. Usually a plant of montane steppe, from the NE corner of California up into Canada & SE across to Colorado. Often well-grown in cultivation but not always easy.) . (20+) C
- 1.371.800 : FRITILLARIA PURDYI** Cal., Trinity Co., S of Bear Creek Trailhead. 960m. Open, stony, serpentine slope. (Leaves crowd on the ground with 10cm. stems carrying a few waxy, nodding bells, described by Martinelli as "voluptuously curved", "the shiniest, most delectable fritillaria flowers." Variable in the brown veining & tinting on a green-white ground.) (20+) C

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

- 1.371.906 : **FRITILLARIA RECURVA** * Cal., Trinity Co., above Canyon Creek N of Junction City. 500m. Serpentine. (Incomparable & unique with pendant orange-scarlet trumpets on 50cm. stems whorled with narrow leaves. Not a problem to grow.) (15+) D
- 1.371.907 : **FRITILLARIA RECURVA** Oregon, Jackson Co., Siskiyou Mts., N of Yreka. 1030m. Deep leafsoil. (15+) D
- 1.371.908 : **FRITILLARIA RECURVA** Cal., Trinity Co., SSW of Scott Mt. summit. 1600m. Among conifers (15+) D
- 1.372.001 : **FRITILLARIA RECURVA** var. **COCCINEA** Cal., Napa Co., Aetna Springs. c. 300m. N. Gielegem coll. (Very uncommon, low altitude serpentine-chaparral race, not recognized by Ness, from a small area on the inner Coast Ranges in Lake & Napa Cos. 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. It flowers early & we have not seen it. Probably difficult & certainly for warm dry treatment.) (10+) E
- 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 Wayne Roderick coll. (Known from one or two vanishing sites away up on the NW Pacific coast. Obtuse segments in brown tipped with white. Dwarf & one of the easiest for UK growers.) (15+) C
- 1.372.100 : **FRITILLARIA STRIATA** Cal., Kern Co., Greenhorn Mts., NE of Bakersfield. 760m. J. Andrews coll. (Pendant bells with recurved tips. Described by Alan Galloway, the discoverer, as "white to creamy with purplish dotted striae" - appearing pink - and "with the most delicious fragrance". An adobe-clay species, extremely difficult but not impossible in the UK.) (10+) F
- 1.372.150 : **FRITILLARIA VIRIDEA** Cal., San Benito Co., Clear Creek W of San Benito Mt. 970m. J. Andrews coll. (An endemic of serpentine-barrens, almost unknown in cultivation. Nodding bells 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.") (15+) E
- 1.839.001 : **SCOLIOPUS BIGELOVII** * Cal., Marin Co., near Nicasio Reservoir. 30m. Woodland. Ex an R. & R. Wallis coll. (Strange, summer-dormant *Trillium*-relative. Two, big, mottled, basal leaves. Complex greenish white flowers, intricately marked & lined with purple-brown. For a peat-bed in the UK but best appreciated in a pan. Slow from seed : treat like *Trillium*.) (10+) D

Trillium : wild seed from the West

As the Cases state in their monograph, "published experimental documentation of the germination phenomena is surprisingly skimpy." *T. albidum* and *T. ovatum* we know can be safely dried

With conventional methods, you may not have any germination before spring 2003 but it may be the simplest procedure. Kath Dryden subscribes to the sow it, put it outside and wait method.

- 1.919.500 : **TRILLIUM ALBIDUM** Oregon, Josephine Co., Waldo Hill. 650m. In shade of deciduous *Quercus* over serpentine. (Described by Case as "one of the showiest of the western sessile trilliums ... a very distinct and splendid species". Robust 50 cm. stems carry broad leaves, blotched with dark grey-green, around the sessile flower with upright creamy white petals.) (15+) C
- 1.919.501 : **TRILLIUM ALBIDUM** Cal., Humboldt Co., ESE of Orick. 400m. In deep moist leafsoil pockets among boulders in dense shade of deciduous *Quercus*. (From a locality where we were told that *T. ovatum*, *T. albidum* and *T. kurabayashii* occurred together and that hybrids occurred. We saw no evidence of the first but the seed-capsules were purple-tinged (10+) D
- 1.920.010 : **TRILLIUM CHLOROPETALUM** from **RED FORM** * Deep crimson form of the 30cm. high species of moist, W Coast woodlands, grown as "*T. sessile rubrum*" "*T. chloropetalum giganteum*" and now as "*T. kurabayashii*". Large leaves, beautifully mottled with grey, & erect-petalled flowers. Seed from several fine forms in the National Collection at 'Spinners'). (15+) C
- 1.920.950 : **TRILLIUM GRANDIFLORUM** f. **ROSEUM** * Seed from Herman Fuchs of the exquisite pink form of this superlative, well-known species with large, full-petalled flowers on 30cm. stems. Opens pale pink and deepens with age. This variation is apparently not infrequent in the Blue Ridge Mts. of Virginia but we have no idea how reliably it reproduces from seed. (15+) D
- 1.921.600 : **TRILLIUM OVATUM** (var. *ovatum*) Cal., Mendocino Co., NW of Boonville. 100m. Moist areas in shade of *Sequoia* forest. (The variable western cousin of eastern *T. grandiflorum*, flowering earlier than this when the two are grown together in cultivation. The large white flowers, on stems of about 30cm. in this case, usually mature to pink shades.) (15+) C
- 1.921.603 : **TRILLIUM OVATUM** Cal., Humboldt Co., N of Weitchpec, Bee Mt. 950m. Among *Gaultheria* & *Rhododendron* scrub at edge of coniferous forest. (A large, robust plant from the ranges on the opposite side of the Trinity River from the Salmon & Marble Mts., home of *T. ovatum* subsp. *oettingeri*, distinguished by its distinctly petiolate leaves and more or less nodding flowers with linear-lanceolate petals. We felt unsure about assigning this to a particular race when in fruit.) (15+) D
- 1.921.650 : **TRILLIUM OVATUM** f. **MACULOSUM** Cal., Mendocino Co., N of Gualala. 20m. Among undergrowth in shade of coastal *Sequoia* forest. (A type-locality coll. from this colony, some members of which constitute the form *maculosum*, described by F. & R. Case. in 1997. The form with dark purple-green blotches on the foliage is unique among the pedicellate trilliums, but these markings are neither evident nor consistent in all plants. Leaves vary from plain green through an entire gradation of markings to completely purplish ones in one or two cases. The flowers here are reputedly all the normal white.) (15+) E

Some winter-growers from the high Namaqualand plateaux

- 3.255.400 : GLADIOLUS CARMINEUS** W Cape, near Hermanus. (A beautiful hysteranthous winter-grower known only from a few sandstone cliffs near the coast of W Cape. Rich carmine-pink with a cream median stripe. Frost-free.) (10+) **D**
- 3.256.409 : GLADIOLUS CERESIANUS** N Cape, Roggeveldberge. ("One of the most diminutive species", 15cm. high or less, Allied to *G. uysiae* and *G. watermeyerii*, both of which are temperature-hardy with us. Proportionately large, fascinating, elegant, sweet-scented flowers with erect, upper segments, cryptically coloured in purple-brown to grey-green with complex veining.) (15+) **D**
- 3.553.009 : MORAEA FALCIFOLIA** N Cape, Nieuwoudtville. (Unlike any other : very dwarf, no more than 5cm. high, with a sessile rosette of falcate leaves, in the centre of which cream flowers with intricate purple and yellow markings appear.) (15+) **C**
- 3.555.809 : MORAEA MACRONYX** N Cape, Roggeveldberge. (An amazing plant from high altitudes. In appearance, as near as you can get to a Juno *Iris* in S Africa : fragrant, pale-yellow flowers, with deep yellow nectar-guides, rise on 15cm. tubes.) (15+) **D**
- 3.557.010 : MORAEA PAPILIONACEA** * No data. A sweet little plant, widespread in the western mountains of the W Cape. Only 10-15cm. high with branching stems, carrying sweet-scented flowers, which can be salmon-pink or pale-yellow.) . . . (15+) **B**
- 3.700.200 : ROMULEA AMOENA** N Cape, Bokkeveldberge, near Nieuwoudtville. 1300m. (One of the local species of the high stony plateaux of the Nieuwoudtville area. Huge carmine to rose crocus-flowers, blotched purple-black in their throats.) . . (20+) **C**
- 3.700.400 : ROMULEA ATRANDRA** (var. *atrandra*) N Cape, Roggeveldberge, W of Middlepos. 1800m. (Large flowers in an intense magenta-rose, blotched with violet or blue-black above the yellow-cupped centres.) (20+) **B**
- 3.701.800 : ROMULEA DIVERSIFORMIS** N Cape, Komsberg, SE of Sutherland. 1800-2000m. (Very local in the desert-ranges of the Sutherland region, along the S margin of the Great Karoo. Clean, bright, buttercup-yellow flowers.) (15+) **C**
- 3.702.001 : ROMULEA EXIMIA** W Cape, near Wellington. (A beautiful low altitude plant, confined to the Malmesbury area, inland & N of Cape Town. Dusky rose flowers, blotched with deep crimson in their throats, above a pale yellow cup.) (20+) **B**
- 3.703.401 : ROMULEA HIRTA** N Cape, near Nieuwoudtville. 1500m. (Almost certainly a temperature-hardy species from the inland plateaux, 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. (Only recorded from sandy soils on the high Komsberg plateau. Near *R. atrandra* but the big, rosy flowers are usually tipped with violet-blue.) (10+) **C**
- 3.704.001 : ROMULEA LUTEOFLORA** N Cape, near Nieuwoudtville. 1800m. (More or less a yellow version of *R. atrandra* but distinct in its colour & chromosome number. Brilliant-yellow flowers, strikingly blotched with mahogany-brown.) . . . (20+) **B**
- 3.704.600 : ROMULEA MONADELPHA** N Cape, near Nieuwoudtville. 1300m. (Endemic to this area & considered by De Vos to be "one of the rarest & most beautiful" species. Brilliant satin flowers in deep claret-red, with black markings.) (15+) **C**
- 3.704.700 : ROMULEA MONTANA** N Cape, S of Nieuwoudtville, near Moedverloor. 1300m. (From the Bokkeveldberge to the Cedarberg. Shiny, buttercup-yellow flowers, usually blotched with dark brown & feathered red-brown outside.) (20+) **C**
- 3.704.800 : ROMULEA MONTICOLA** N Cape, S of Nieuwoudtville, near Moedverloor. 1300m. (Confined to the high plateaux of the Bokkeveld & Gifberg. Red-brown backed, golden yellow flowers, with deeper yellow centres.) (20+) **C**
- 3.705.200 : ROMULEA NEGLECTA** (*R. oliveri*) N Cape, Namaqualand, Kamiesberg. 1500m. (A 15cm. Kamiesberg endemic, originally described from a "moist, W-facing, sandy slope" & distinct in its "large, bright rosy-magenta flowers".) . . . (20+) **D**
- 3.706.110 : ROMULEA SALDANHENSIS** * No data. From sandy clays near the Atlantic, N & S of Saldanha Bay. We have grown it unheated but it 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. (Endemic to the sandstone of the Gifberg plateau. Very crocus-like with its white, yellow-centred flowers, usually purple-stained externally.) (15+) **C**
- 3.707.320 : ROMULEA SYRINGODEOFLORA - WHITE FORM** Northern Cape, Roggeveldberge. (Showy, white-flowered form of this magenta-pink species. Long-tubed white flowers striped with yellow on a dark-red ground externally.) (15+) **B**
- 3.707.500 : ROMULEA TETRAGONA** (var. *tetragona*) Northern Cape, Roggeveldberge, near Middlepos. 1800m. (A most distinct plant, possibly not close to any other. Winged, hairy leaves & violet-rose to lilac-pink flowers with dark anthers.) . . . (20+) **B**
- 3.707.701 : ROMULEA TORTUOSA** (subsp. *tortuosa*) Northern Cape, Roggeveldberge. (Fascinating, flexuose, spiralled leaves twist on the ground. Striking, big, yellow to orange flowers with spade-shaped black blotches on each segment.) (15+) **B**
- 3.707.751 : ROMULEA TORTUOSA subsp. AUREA** N Cape, Nieuwoudtville area. 1500m. (Distinguished from the type-race "by its slightly larger, crocus-like, fragrant, buttercup-yellow or almost orange-yellow flowers without dark markings".) . (20+) **B**

Species from Eastern Asia : Seeds from Jim & Jenny Archibald

- 4.044.010 : **ANEMONE OBTUSILOBA from BLUE FORM** * No data. From a rich blue form of this variable, buttercup-like perennial with decumbent flower stems rising to 15cm. from tufts of leaves, in this case, hairless, deeply cut and shining green. . . (10+) **C**
- 4.044.020 : **ANEMONE OBTUSILOBA from YELLOW FORM** * A beautiful form from a Ron McBeath coll. "from the top of the Rhotang Pass." Radiating stems carry a succession of canary-yellow flowers stained with inky violet-blue outside. . . . (10+) **D**
- 4.045.007 : **ANEMONE RIVULARIS** * China, Yunnan. Ex ACE 1698 (A lovely, 60cm. high meadow-plant, widespread from Kashmir to Yunnan. Long-stalked, cup-shaped flowers, white inside & heavily tinged with purplish-blue outside.) (20+) **B**
- 4.045.008 : **ANEMONE RIVULARIS** * Nepal. Ex MECC 49 (Both are easy in the UK in a good, moist soil in sun.) . . (20+) **B**
- 4.045.150 : **ANEMONE RUPESTRIS** * No data. From a R. McBeath coll. A charming plant, like a miniature *A. obtusiloba* : clumps of finely cut, bright green, parsley-like leaves and a succession of pure-white flowers on 15cm. radiating stems (10+) **C**
- 4.046.010 : **ANEMONE TRULLIFOLIA** * China, Yunnan, Dali, Cang Shan. Ex SBEC 797. (Ice-blue to white flowers from indigo stained buds on decumbent, 15-20cm. stems. Distinct from *A. obtusiloba* in its hairy spatulate, notched foliage.) (10+) **C**
- 4.541.510 : **LYSICHTON CAMSCHATCENSIS** * No data. Beautiful, white, green-tinged, sweet-scented spathes in spring. A plant of the bogs & lakesides of cold NE Asia, from N Japan up through Sakhalin to Kamchatka. At about 30cm. high, a smaller plant than its yellow-flowered N American relative. Freshly collected seed for immediate sowing in very wet conditions.) (15+) **C**
-

Species from Australasia : Seeds from Jim & Jenny Archibald

- 5.252.005 : **CLEMATIS MARMORARIA** * No data. Quite recently discovered, this little suckering alpine subshrub is only known from marble-crevices at 1280m. & 1460m. on Mt. Crusader & Mt. Hoary Head in the Arthur range of NW Nelson, NZ. Suckering stems up to 15cm. long with dark-green, deeply divided leaves & profuse, creamy white flowers. An excellent alpine-house or trough plant in the UK. You need both male and female plants to get viable seed so it is seldom available. Freshly collected. . (10+) **E**
-

Garden hybrids & selections : Seeds from Jim & Jenny Archibald

Cyclamen : some outstanding foliage selections

- 6.360.003 : **CYCLAMEN COUM from PLAIN LEAVES, WHITE FLOWERS** (15+) **C**
- 6.360.020 : **CYCLAMEN COUM from BICOLOURED FORMS** Mainly derived from Peter Moore's silvery-leaved selection 'Tilebarn Elizabeth' but including others with more variable leaves but two-toned pink flowers. (15+) **C**
- 6.360.045 : **CYCLAMEN COUM from SILVER-CENTRED LEAVES** Central silver 'Christmas-tree' marking. (15+) **D**
- 6.360.050 : **CYCLAMEN COUM from SILVER & PEWTER LEAVES** From pale-pink & white-flowered, silvery-leaved forms, including those circulating as 'Blush' and white-flowered 'Maurice Dryden'!. (15+) **D**
- 6.364.051 : **CYCLAMEN HEDERIFOLIUM from WHITE APOLLO** (also now distributed as 'Artemis') From a white-flowered selection developed from the Bowles' plant with intricately silver-patterned leaves, often pink-flushed when young. . . (15+) **D**
- 6.364.099 : **CYCLAMEN HEDERIFOLIUM from ROSENTEPPICH** The German strain developed for rich, deep-pink flower colour, which has given rise to some outstanding deeper coloured seedlings, like the Phil Cornish 'Ruby Strain' (15+) **C**
- 6.364.140 : **CYCLAMEN HEDERIFOLIUM from SILVER ARROWS** Long, narrow, silvered, arrow-head leaves. . . (10+) **D**
- 6.364.160 : **CYCLAMEN HEDERIFOLIUM from SILVER LEAVES** Jim Almond's selections, distinct from above. . (10+) **D**
- 6.364.180 : **CYCLAMEN HEDERIFOLIUM from SCENTED FLOWERS** Originally collected by Tom Blanchard, John's father near Thessaloniki in N Greece in the early part of last century. We cannot smell the scent but many others can (15+) **B**
- 6.366.005 : **CYCLAMEN MIRABILE from 'TILEBARN JAN'** Entirely silver leaf, all luminous pink in autumn. (10) **E**
- 6.366.010 : **CYCLAMEN MIRABILE from 'TILEBARN NICHOLAS'** Dark central area on leaves with a brilliant silver surround, bright pink in autumn. This & the preceding are from Peter Moore's outstanding selections for leaf-pattern & colour . . (10) **E**
-

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

Hellebores : seed from named hybrid clones

- 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 a month after all others here (15+) **D**
- 6.564.008 : HELLEBORUS from 'AQUARIUS'** A most distinct, floriferous 'Zodiac' type : rose-pink outside, paler inside with a diffuse zone of small, crimson speckles. Large flowers carried on long pedicels give it an unmistakable appearance. . . (15+) **D**
- 6.564.016 : HELLEBORUS from 'CASSIOPEIA'** A lush-leaved, vigorous clone picked out by Amy Doncaster from a bed of seedlings flowering at Buckshaw Gardens in the 1970's. Soft shell-pink delicately tinged with green & cream. (15+) **D**
- 6.564.018 : HELLEBORUS from 'CITRON'** From one of the best-known Helen Ballard yellows. Not actually any yellower than some others like 'Sirius' & 'Orion' but with the characteristic Ballard shape : rounded flowers with overlapping sepals. (15+) **E**
- 6.564.020 : HELLEBORUS from 'COSMOS'** Greenish white bowls densely & evenly spotted all over the interiors with crimson. Rose-pink flushed, crimson-veined exteriors. A paragon from Eric Smith with rounded 'Ballard-type' flowers. (15+) **D**
- 6.564.023 : HELLEBORUS from 'DRACO'** Even rose-pink outside with a pale rose interior, largely occupied by a crimson basal patch made up from a coagulation of speckles, which diffuse in streaks & dots around the picottee edge. (15+) **D**
- 6.564.045 : HELLEBORUS from 'MAIA'** A vigorous plant with large, bowl-shaped white flowers strikingly marked on the interior with a crimson flash at the base of each sepal. We have not flowered seedlings yet so have no idea about her children . (10+) **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. . . (15+) **D**
- 6.564.066 : HELLEBORUS from 'POLLUX'** Small, cup-shaped, rich purple-black flowers & much-cut foliage which is beautifully tinted with red-purple as it unfolds in spring. We have included seed from some similar dark seedlings (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. . . . (10+) **D**
- 6.564.080 : HELLEBORUS from 'TITANIA'** Jenny's favourite hellebore. A *H. torquatus* hybrid : little, rounded, cup-shaped flowers are creamy green inside but covered with tiny reddish dots outside to give a misty mushroom-colour. (15+) **D**
- 6.564.121 : HELLEBORUS from CREAM & WHITE-FLOWERED HYBRIDS** Some with slight basal speckling . . (15+) **C**
- 6.564.130 : HELLEBORUS from H.O. GUTTATUS HYBRIDS** Whites, sometimes green or cream tinged but all with a distinct basal zone of maroon or crimson speckles, which in some cases bleed together into streaks. (15+) **C**
- 6.564.142 : HELLEBORUS from DEEP ROSE-PINK FLOWERED HYBRIDS** Mainly from what we used to label 'old rose' : dusky, satiny, antique, rose shade of which we are fond. Some of these have very large, outward-facing flowers. . . . (15+) **D**
- 6.564.150 : HELLEBORUS from PURPLE-FLOWERED HYBRIDS** From good plum and purple shades (15+) **C**
- 6.564.151 : HELLEBORUS from SELECTED PURPLES** the best of what Eric Smith used to call 'Midnight Sky' types (purple with an even dusting of darker speckles all over the flowers). We have collected separately from a few outstanding selected clones, mostly with the bowl-shaped, even flowers which appealed to Helen Ballard. From unnamed clones but ones which are, quite frankly, as good or better than their parents. These should produce some fine seedlings but there are no guarantees. (15+) **D**
- 6.564.170 : HELLEBORUS from H. TORQUATUS HYBRIDS** From hybrids like 'Ariel', 'Miranda', 'Pluto', 'Titania' & 'Zuleika', 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

Five packets of seed from purples, creams, *H.o. guttatus* types, *H. torquatus* hybrids & 'Zodiac-types' at a list price of £12.50 or \$20

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 come 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**

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