NEWS FROM : JIM & JENNY ARCHIBALD, 'BRYN COLLEN', FFOSTRASOL, LLANDYSUL, DYFED, SA44 5SB, WALES, UK : APRIL, 1995

THIS LIST WILL REMAIN VALID DURING THE REST OF 1995 - YOU MAY ORDER FROM IT AT ANY TIME DURING 1995 FOR DESPATCH IN THE APRIL - MAY OR SEPTEMBER - DECEMBER PERIODS. ORDERS RECEIVED AFTER MID-MAY WILL BE ACKNOWLEDGED AND FILED FOR DESPATCH IN SEPTEMBER.

ORDERING could not be easier. We shall accept your personal cheque in US $, £ sterling or DM, with two qualifications : Cheques in US $ must be on a US bank account - charges on negotiating cheques on foreign accounts are very high in the USA (foreign banks can sometimes sell you a US $ cheque drawn on one of their US branches) ; please do not send Eurocheques made out in US $ - they are unfamiliar to the US banking system. Payments from France have caused problems in the past. While we continue pricing in FF, we must ask French customers not to send cheques in FF and especially not to use cheques on 'La Poste'. These have proved very difficult to handle. A Eurocheque made out in £ sterling is excellent ; a Giro payment in sterling is used by many French customers - you can price in FF and have the current equivalent sent to us in £ sterling ; FF cash sent to us by registered letter is also no problem. If fluctuations in exchange-rates mean that it is advantageous to you to select a currency other than your own, please do so - it makes little difference to the operation of our business. Apart from personal cheques, payments can be made in bank-notes for any of these currencies (please send by registered mail), a bank draft or International Money Order (in 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 which we cannot supply. We shall not pay-in your cheque until after your order has been sent - it is in our own interest, as well as yours, to complete your order as quickly as we can. Finally, we stress .....

THERE IS NO CHARGE FOR AIRMAIL ON THE SEEDS OR ON THE SEED-LISTS ::::: PLEASE PRINT YOUR NAME & ADDRESS CLEARLY

MAILING LIST FOR CUSTOMERS FROM OUTSIDE EUROPE About 40% of the seeds we distribute goes to growers in North America, Australia & New Zealand. As in Europe, we have consolidated a loyal core of valued & regular customers. While we appreciate that not everyone is going to order from every list, sending a list to someone who is no longer interested is unnecessarily expensive at $3 to $4 basic cost each time. Our policy up till now has been to send anyone who orders once at least the next two lists, irrespective of whether they order again or not. We shall continue to do this for customers in Europe, as mailing costs are much lower. However, in future, customers outside Europe will be sent only one further list. In other words, if you did not order in September and do not order from this list, you will be off our mailing-list now ; if you ordered from the September list but do not order from this one, you will still be off under the new policy - unless you let us know. You have only to write to tell us you still want the next list, although you are not ordering at present, and we shall send it willingly. We do run our small and personal business with some discretion and flexibility and are unlikely to remove a regular and valuable customer simply because we do not receive an order from one list but it would be safest to write to tell us.

NEW CUSTOMERS - PLEASE UNDERSTAND There may be a delay of some weeks before you receive your order. The majority of orders come in during the first week or so after we send out a list. We usually receive orders very much faster than we can despatch them - but please note the comments in the next paragraph as far as this present list is concerned. If you feel your order is too long in arriving or have received no explanation or acknowledgement from us, check with your bank to find out if your cheque has been cashed - we do not pay in cheques until after orders have been despatched. If it has been cashed, let us know immediately. One or two items do become lost or delayed each year. In such an unlikely event, you will find us totally sympathetic. We are glad to say that such problems are very rare ; postal services are, on the whole, reliable. We try to be as reliable ourselves.

PERHAPS BETTER LATE THAN NEVER For some time we have been remarking facetiously that this seed-list will be issued at the best time for our customers in the southern hemisphere. About 20% of our seed goes there so we should accommodate them with at least 20% of our lists. It is certainly not a normal time for one of our lists to appear. It might not seem to be the most prudent course from the business viewpoint of maximising orders from it. We really have no alternative and we shall wait with interest to see the pattern of your response. We normally have a rush of orders during the first few weeks after sending out a list. We can handle this initially as we are now all packeted up and ready to go but, if orders continue to come in as usual, they will simply have to wait till September. We shall be in North America from late May through to August. Give us a week or so to sort everything out on our return and we shall send your order out in September. If you do not actually need the seeds until September - and this is not a bad idea if you are involved with most petaloid monocots. and other low-temperature germinators - send us your order now or at any time over the summer, tell us that you do not need it till September and date your cheque 1st September. All our correspondence is opened by a friend when we are abroad and your order will be acknowledged and filed for our return. If we cannot complete all orders in hand by mid-May, we shall write to tell you. There are, of course, a great many species listed which will germinate at the higher spring & summer temperatures - Compositae, Cruciferae and so on - and we shall get orders out in April-May if we can do so. We think most of our regular customers are probably persuad--ed by now that 'fresh' seed is not particularly important for dry-climate species ; so don't worry about the collection dates - they are there for the record and so you can make an informed choice. We are all so full of the received wisdom about the benefits of 'fresh' seed that it takes time to learn that older seed can sometimes actually give better res--ults. We believe the prerequisites of viable seed are : 1. That it is collected, matured & dried with knowledge and care 2. That it is stored in conditions of low humidity and even temperature. While we do refrigerate seed, we are not actually convinced that storing it at an even room temperature is not just as good. We have been sowing quite a lot of seed ourselves lately - extracted from our refrigerator and up to 10 or 12 years old - and there have been some interesting results. We shall not bore you with excuses or explanations as to why this seed-list - scheduled for December, 1994 - is quite so late. You can attribute it to our general incompetence and lack of accurate planning, resulting from a failure to recognize that distributing an increasing volume of seed annually takes an increasing amount of time and that attempting to establish stocks of living plants for the production of home-grown seed also takes an additional amount of time. We hope you will benefit in the end and continue to support our work.

ECONOMIC MIRACLES don't come cheaply. In Britain we are paying for one at present. When we were in Argentina last year, the flamboyant President Menem was touring other South American countries proclaiming his own 'economic miracle'. We found ourselves in the middle of it. We must have done too much travelling and become too blasé. Through our incompetence and lack of accurate planning on this occasion, we assumed everything would be much the same as in 1991. We had not done our homework. It was not. In 1991, rampant inflation and steady devaluation were manifest in long queues outside the banks, as Argentinians waited to change their pesos into US $. In a slick move, Menem devalued drastically and made the new peso equal to $1 - both currencies being equally acceptable. It works for a time. From our viewpoint (quite apart from that of most Argentinians) it made renting a vehicle, fuel and many other costs frightening--ly expensive. We had planned to spend all of our time collecting in Argentina but there was no way we could have just--ified the cost. Fortunately, we were joined for a few weeks by John Andrews and Mike Broder from Berkeley. Splitting the cost of transport made the expense bearable. When John & Mike flew back to California, we flew over the Andes for ten days in the more economically acceptable environment of Chile, which we had not originally planned to visit at all. While you may have missed out on a few Argentinian species from the drier North, we have been able to collect seed from some of the classic plants from the central Chilean Andes. The quality and quantity of seed in the mountains south from Mendoza to Bariloche in Argentina was also excellent (it seemed to have been much poorer and drier to the North of Mendoza - maybe we did not miss too much), so while the journey may not have been rewarding from a business viewpoint, it has at least yielded some worthwhile seeds. We devote most of this list to these and other South American species - we shall not be listing them in our next list but we shall possibly keep the South American section here running over 1996 with amendments and updates. Make the most of them - we shall not be back in Argentina under the present circum--stances unless we experience our own personal economic miracle.

A POSITIVELY DISCRIMINATING POLICY... If you are developing an interest in South American plants, you may be interest--ed in a letter received from a researcher for a British television gardening programme. She inquired to find out if we could put her in touch with anyone growing a collection of Andean alpines. We 'phoned back to tell her that, while we had no immediate suggestions, we'd call again if anyone came to mind. She added that she had also been instructed to include more 'ethnic minorities' and children in the programmes. So, if you think you may have the physiognomy and skin-colouration, which appear to be the qualifications for membership of 'an ethnic minority', are less than 16 years old and grow a collection of Andean alpines, let us know. We can guarantee you your 15 minutes of fame. We thought we might try to persuade one of our local friends, who will be helping to collate and mail this list, to grow some plants but, though a fluent Welsh-speaker of Nigerian extraction, she is unfortunately 18 years old now.

...AND A CORRECTLY POLITICAL PLANTSPERSON We were told a delightful story about Ms. Victoria Matthews recently. The occasion was an interview in Florida in connection with Brinsley Burbidge's appointment there. (We assume they had established why they felt obliged to grill Matthews in connection with Burbidge - obviously, you cannot be too careful about whom you employ to run a botanic garden in Miami.) One of her interview--ers questioned Vicky on the title of the publication she then edited - 'The New Plantsman' indeed. "We've been through all that in Britain," Vicky is said to have replied, "and come out the other side." Whereupon the interviewing panel burst into spontaneous applause.

THE SECRET TOOTHWORT AND OTHER HOLOPARASITES The spectacular holoparasite, Lathraea clandestina, seems to be popping up all over the place this spring. It was the subject of an exhaustive account by Victoria Matthews in the most recent issue of 'The New Plantsman'. Its specific name has been chosen to conceal the identity of the new anthologist of another excellent gardening publication (about which we shall say no more, as it must look as if we have a sick obsession with it - but what an exciting name to choose - 'Clandestina' - so evocative of the dark and forbidden - a name that might well prove to be the title of a lost novel by the Marquis de Sade). Then, a few weeks ago, we attended a lecture, which started with the speaker dangling a plastic bag contain--ing severed pieces of L. clandestina before the audience. "Now then, I'm going to ask you to pass this along the rows so you can all have a look at it and we'll see if any of you know what it is." Anyone who knew the plant could see what it was from the back-row but who wants to be a spoilsport? "Now then, anybody know?" "Is it a broomrape?" "No. No. It's not a broomrape. It is in the broomrape family but it's not a broomrape." Our lecturer was apparently in disagreement with Prof. Webb's 1972 contention that it is in Scrophulariaceae and that any similarity to Orobanchaceae "seems to be superficial." At this point, the more extrovert might have assumed an antiquely rural accent and said, "That be the secret toothwort thur mister. Thee don't wanna meddle wi'she." However, both of us being children unwilling to raise our hands in class, we kept silent. We might have remained so had not the speaker continued to jiggle his plastic bag at arm's length like an auctioneer inviting the final bid. "Nobody know then? Nobody know?" A nudge and a whisper, "For goodness sake, tell him", forced "It's called Lathraea clandestina" from one of us. There was only a brief pause. "There's the chap to ask if you want your plants identified. There you are then! Take it home and grow it in your garden!" The offer was declined. Although some seeds might have been acceptable, we could be thankful that it was not the fruiting season. At such a time that great gardener, Mr. Bowles (the great gardener Mrs. Fish always referred to him as Mr. Bowles and, like the great Ernest Wilson, he should always be called great) played a jolly prank. "I greatly enjoyed taking some samples of ripe capsules up to one of the meetings of the Scientific Committee of the RHS..... I gave them a pinch, and startled the members at the other end of the table by the sudden impact of several Lathraea seeds....I can always get some amusement by inducing a visitor to press a bunch of ripe capsules and noting how high he jumps when the seeds fly into his face..." - Wizard wheaze, eh, old chap!

THE EMPIRE STRIKES BACK It might be thought that the Royal Horticultural Society had totally changed from the days of Mr. Bowles. We are not so sure. Having pumped itself up to a membership approaching 200,000 with a multi-million pound turnover, it is not inappropriate that it should be run by money-men. Mr. Robin Herbert, formerly on the board of the multinational Marks & Spencer, has been succeeded as president by Sir Simon Hornby, Chairman of the W.H. Smith Group. A gardening writer, who had best remain anonymous, recently wrote to us after a press-briefing, "There are no horticulturists in charge any more and the new president was arrogant and dismissive... There wasn't a plant mentioned - it was all money and projects. And money again." The proceeds of the National Lottery (a new "tax on the greed of the gullible poor" - like ourselves) constitute a new Eldorado for our British conquist--adores. The RHS seems to be in there with its ever-so-slightly-sleazy manoeuvre to remove the Lindley Library from London to Wisley, so that it can be presented as the centre-piece of a building-project, which should qualify as the capital expenditure of "a good cause", enabling it to apply for a cut of lottery money. The new RHS maybe did not anticipate that what it may have thought of as the 'old establishment' would climb out of their ha-has and emerge from their gazebos with quite so much vehemence. At the AGM in February, Sir Simon's attempt to brush it all under the carpet was greeted with shouts of 'shame' and boos. Shrivelled by Lady Bruce Gardyne - "I would like to remind the chairman that we are the Royal Horticultural Society, not the Surrey Horticultural Society" - Sir Simon fell to his knees before the Marchioness of Salisbury (a vice-president of the RHS and owner of Hatfield House, who not only has a very much larger and more famous garden than Sir Simon but is also likely to have rather more money) to be neatly handbagged by the heavy 'they' had brought in, in the form of Baroness Elles, a member of the House of Lords, who explained to Sir Simon that if he did not allow the matter to be discussed, the society could be challenged on its decision in the courts. This was but the initial skirmish. The battle will take place at the special meeting to be held later in the year. Sir Simon is no doubt puzzled by all this fuss. Like 99% of the RHS membership, he could probably find a gardening book suited to his needs on the shelves of one of the numerous branches of W.H. Smith and has had no need to make use of the Lindley Library in his life. As Sir Simon licks his wounds, perhaps the RHS might keep an eye upon suitable presidential qualities in others. Former Guinness chairman, Ernest Saunders, is possibly available again. We also believe Peter Baring, recently retired chairman of a very old and respected merchant bank, has a little more time on his hands. If the RHS wishes to popularise its image further with a faintly plebeian touch, perhaps Cedric Brown, chief executive of British Gas plc, might be encouraged to pop outside to stake his pansies.

SEEDS FROM JIM & JENNY ARCHIBALD, 'BRYN COLLEN', FFOSTRASOL, LLANDYSUL, DYFED, SA 44 5SB, WALES, U.K.

SECTION I : SEEDS COLLECTED IN ARGENTINA, CHILE & ECUADOR

Most seeds listed were collected by ourselves in Argentina & Chile (in 1994) and in Ecuador (1993). A few species are offered as 1994 seed from cultivated plants - except for a few ferns, all seed from species of South American origin is included here. All seed has been stored in low humidity under refrigerated conditions and little, if any, deterior-ation in viability will have occurred. On the other hand, the very high altitude collections and those from the very cold, dry areas of Argentina can be most irregular and unpredictable in germination. Seed from Ecuador has, in general, proved easy to germinate in the UK. Brief comments regarding germination are given under individual genera.

REFERENCE NUMBERS are our field-numbers, which run in the order of collection. Packets of our collections will carry only these numbers. A check-list of the numbers in numerical order will be sent with the seeds for identification.

NOMENCLATURE offers considerable problems at present. There is no modern, standard flora in a completed state for any of these areas. We follow the excellent 'Flora of Ecuador' as far as it exists but many important families have not yet been covered by this. The less satisfactory 'Flora Patagonica' is also only partially completed. Where a modern monograph on a genus exists, we have tended to use this in preference to the latter publication but, where we can find no alternative, 'Flora Patagonica' nomenclature has been used. No part of the projected 'Flora Chilensis' is published yet but Dr. C. Marticorena (Barrio Universidad, Concepcion, Chile), who is co-ordinating this has kindly supplied determinations for a number of herbarium sheets, as well as indicating where it might be prudent to remain uncommitted at present. While we have perhaps been overcautious, so many seed-collections have been distributed under names which are either invalid or, much worse, misapplied, that we are reluctant to add to the confusion. We are particularly grateful to Martin Gardner & Sabina Knees of the RBG, Edinburgh, for reviewing herbarium material, supplying some determinations and also for forwarding sheets to specialists in particular genera. Individuals who have assisted in identifying particular genera are mentioned under the genus concerned. Further names in due course.

THE GEOGRAPHY & CLIMATE of the areas with which we are concerned here, is so diverse that it is really impossible to generalise. The central section of Chile & Argentina, with which we are concerned here, more or less parallels the western USA. Central Chile is roughly equivalent to California west of the Sierra Nevada with west-central Argentina equalling the colder drier climate of the intermountain area of Nevada & Utah. Altitude must be considered in respect to latitude ; a widespread alpine species, like Oreopolus glacialis, may grow at over 3000 m. E of Santiago but come down almost to sea-level in S Argentina. Ecuador, lying on the Equator, experiences no winters and summers. At high altitudes there, the entire winter-summer temperature range may be experienced over 24 hours. The highest alpines may not tolerate either prolonged freezing or prolonged high temperatures. The species from around the 3000-3500 m. areas appear to be growing well outside in the cool, temperate summer-climate of Britain. It remains to be seen how much frost they will tolerate. Species from Ecuador are unlikely to survive in extreme continental climates such as that of Andean Argentina or Chile. As usual, field-notes start with the name of the country (Argentina is abbreviated to Arg.) followed by the province and then the department. Chile, stretching from Peru to the Antarctic, is divided into twelve administrative areas, numbered from N to S using the Roman numerals used in the field-notes. The full titles of the regions mentioned are as follows : Region III - Region de Atacama ; Region IV - Region de Coquimbo ; Region V - Region de Valparaiso ; Region Metropolitana de Santiago comes in here - abbreviated Reg. Metro ; Region VI - Region del Libertador General Bernardo O'Higgins ; Region VII - Region del Maule ; Region VIII - Region del Bio Bio ; Region IX - Region de la Araucania ; Region X - Region de los Lagos. The equivalent area on the Argentinian, eastern side of the Andes is covered by the provinces of San Juan, Mendoza, Neuquen & Rio Negro, running from North to South.

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* ABUTILON VITIFOLIUM From cultivated stock of this lovely, fast-growing Chilean shrub. Downy, grey, maple--like leaves & massed, purple-blue hollyhock-flowers. Reasonably hardy in S & W UK. 4 m. or more.(20+ seeds) A

13750 ALONSOA MERIDIONALIS Ecuador, Carchi, NW of El Carmelo (SSE from Tulcan). 3300 m. Margin of dense, montane scrub. 8.7.93 (Erect perennial, about 1 m. high, with racemes of many, small, orange-red, helmeted flowers. A N Andean species, extending to over 4000 m. in Ecuador. Should be moderately hardy in the UK.) (50+ seeds) B

ALSTROEMERIA This magnificent genus is to Chile what Calochortus is to California. In general, their growth -cycle fits in with other late-flowering, summer-dormant groups, such as the Aril Irises or Mariposa Section of Calochortus. While several more species than A. aurea & A. ligtu can be expected to settle down as good garden-plants, they will generally be best grown in a raised bed or bulb-frame. In pots the tubers are vulnerable to freezing - in nature they grow deeply - and they exhaust the soil quickly, needing annual repotting. Ideally, seed should be given a warm period followed by a cool period for germination. We have always found germination occurs at a reasonably even temperature between 5-10°C (40-50°F). Higher tempera--tures inhibit germination. If you feel your soil temperature may be too high or too low, we suggest placing the seed container at the bottom of a domestic refrigerator, which should give the even 5°C required. There is sometimes a depauperate flower or two the first year & most should flower well in 2-3 seasons. The names follow those in the impressive, meticulously researched 'Die Gattung Alstroemeria in Chile' by E. Bayer (Botanische Staatsammlung Muchen, 1987). We are grateful to Dr. Bayer for her help over one or two problems.

14395 ALSTROEMERIA AUREA Chile, VIII, Nuble, SW of Termas de Chillan. 1500 m. Open banks in Nothofagus woods. (Outstanding population, singled out for mention by Bayer, at one of the most northern stations for this species. In its coppery reds & orange-scarlets, it approaches the colour of A. ligtu subsp. simsii (to which we have seen it attributed, though the latter does not grow further S than Reg. VI). Hardy, 60 cm.)(15+ seeds) B

14404 ALSTROEMERIA AUREA Chile, Nuble, NE of Termas de Chillan. 2100 m. Steep, stony, W-facing slope. 4.3.94 (A very variable, high altitude population - orange-scarlet to straw-yellow, inner segments streaked with red. At a truly alpine elevation & worth trying in areas too cold for the A. ligtu hybrids. 50 cm.) (15+ seeds) C

14411 ALSTROEMERIA AUREA Chile, IX, Cautin, W of Vilcun. 200 m. Among scrub at woodland margins. 6.3.94 (Not seen in flower - almost certainly the widespread bright yellow race, which extends S to Reg. XI.) (15+ seeds) B

14415 ALSTROEMERIA EXSERENS Chile, Reg. Metro., La Parva to Valle Nevado. 2800-3100 m. Steep, loose, stony slopes. 8.3.94 (Very high altitude population with about the largest flowers in the genus on the dwarfest of plants. Flat-faced flowers with broad overlapping segments in rich pink with darker tips and crimson-flecking on the yellow ground of the upper, inner ones. Mike Tucker (Somerset, UK) is growing this outside quite well but hot summer weather can lead to premature dormancy - may be easier in the N than the S. 10 cm.) (10+ seeds) D

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

* ALSTROEMERIA aff. EXSERENS Grown by Mike Tucker from an A. Brinck coll. (as A. exserens), made in the cerros La Colla, a locality we cannot trace. Much taller than the preceding with big heads of pink flowers. Though very different in character, we cannot assign this to another species. Worthwhile & hardy so far. (10+ seeds) C

* ALSTROEMERIA LIGTU HYBRIDS Thriving in British gardens from Cornwall to Aberdeen - even here in our cold, wet garden. Every shade from pink to orange, flame and biscuit. By all accounts derived from A. ligtu subsp. simsii (coll. by Clarence Elliott in 1927 as A. haemantha) and A. ligtu subsp. incarnata (collected by Harold Comber in 1926 as A. l. angustifolia). Sow direct to avoid transplanting. 1.5 m. (20+ seeds) A

14355 ALSTROEMERIA PALLIDA Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2200 m. Steep, open, stony slopes. 1.3.94 (Few alpine-plants can rival the sumptuous spectacle of this in flower. In nature, only 5-20 cm. high with its umbels of huge flowers almost on the ground - pale to deep pink or white with the upper, inner segments blotched with gold and streaked with dark crimson. More or less limited to the ranges S & W of Aconcagua, between 1500 & 2800 m., it must tolerate exceptionally low temperatures. Proving more growable & less sensitive to summer-heat than A. exserens with M. Tucker. Try in a sunny scree in the UK.) (10+ seeds) C

* ALSTROEMERIA PULCHRA From the 1971-72 coll., B.C. & W. 4762 (full data not available). Borderline hardiness in UK - we are just too wet for it here but it can be grown in S England. Easy under glass. White flowers (palest lilac under glass) with dark maroon tips. Upper, inner segments streaked with crimson on a bright yellow ground. Quite widespread up to 1000 m. in the Valparaiso-Santiago area. About 50 cm. high.)(10+ seeds) B

14378 ALSTROEMERIA REVOLUTA Chile, VI, Cachapoal, Rio Cachapoal valley W of Pangal. 950 m. Openings among scrub in sandy soil. 2.3.94 (Large, rounded umbels of lilac-pink to purple flowers, individually smaller than most but numerous, on 1 m. stems. A most distinct plant, it should be as hardy as the A. ligtu group.) (15+ seeds) B

14348 ALSTROEMERIA UMBELLATA Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2200 m. Loose, igneous talus on steep slope. 1.3.94 (An extraordinary alpine centred on the mountains above the Rio Maipo up to 3000 m. Succulent sterile rosettes of rounded, grey-green leaves like Echeverias. Dark-tipped, pink flowers, marked with gold & speckled with crimson, sit almost on the ground. A plant of deep, mobile screes, often with Tropaeolum polyphyllum, it has been flowered outside in the UK in a raised scree-bed.) (10+ seeds) D

14274 ANEMONE MULTIFIDA Arg., Neuquen, Lacar, E of Pass Hua Hum. 1000 m. Grassy openings among scrub. 18.2.94 (Not seen in flower but should have little, pale-yellow, cup-shaped flowers. Cut, dark leaves.) (20+ seeds) B

ARGYLIA A spectacular genus of herbaceous perennials belonging to the Bignoniaceae, not unlike compacted versions of climbers like Campsis or Tecoma which have taken their woody stems underground. There is no question as to the temperature-hardiness of the following but they are plants of exposed sites in areas of high light-intensity with dry climates. Some have been grown outside in the UK but never, as far as we know, flowered well. They deserve much further effort - try them in a bulb-frame, raised scree-bed or even a deep potful of chippings in the alpine-house. Poor conditions in full sun will keep them compact anywhere.

14359 ARGYLIA ADSCENDENS Chile, Reg. Metro., Lagunillas, ENE of San Jose de Maipo. 2300 m. Exposed, stony slopes. 1.3.94 (About 20 cm. high with mats of grey, much cut leaves and huge trumpets opening in purple-red shades & maturing to oranges & apricot-yellow. More robust with big flower-heads when in deep talus.) (15+ seeds) C

14116 ARGYLIA BUSTILLOSII Arg., Mendoza, Malargue, Valle de las Lenas. 2200 m. Loose clay soil on steep slope. 4.2.94 (This is A. australis, which seems to be currently merged here. Sumptuously enormous bright-yellow trumpets with crimson-black velvet throats flop almost stemless on low, shrubby mounds of bright-green stems with small dissected leaves. A truly stunning plant which suckers underground into wide patches in exactly the sort of habitats enjoyed by Oenothera caespitosa in W USA. About 15-20 cm. high.) (15+ seeds) D

14190 ARGYLIA BUSTILLOSII Arg., Neuquen, Norquin, SE of El Huecu. 1260 m. Open, eroded, sandy banks. 14.2.94 (15+) D

14186 ARGYLIA ROBUSTA Arg., Mendoza, S of Ranquil del Norte. 1450 m. Open, level areas & among scrub in sandy soil. 13.2.94 (Glaucous, 5-lobed basal leaves and 60 cm. stems with up to 50, 4 cm. long trumpets of bright orange-yellow. A gorgeous herbaceous-plant if we could learn how to grow it outside.) (15+ seeds) C

14177 ARGYLIA USPALLATENSIS Arg., Mendoza, Valle de Uspallata, N of Uspallata. 2100 m. Loose gravel in open areas. 9.2.94 (Suckering mats with cut, greyish foliage and long-tubed trumpets with flattish, rounded faces in chrome-yellow streaked with lines of crimson speckling inside. Spectacular & local. 15-20 cm.) (15+ seeds) C

14169 ASTRAGALUS ARNOTTIANUS Arg., Mendoza, Tunuyan, Passo Argentino. 4000+ m. Exposed, stony slopes. 8.2.94 (An extremely tight, high altitude form of this high alpine. Pads of grey-green pinnate leaves on which sit little, bright-blue and white flowers followed by inflated, crimson-mottled pods. Prostrate.) (15+ seeds) D

14315 AZORELLA MADREPORICA Arg., Neuquen, Cerro Atravesado W of Zapala. 2200 m. Exposed, stony area along ridge. 23.2.94 (Compacted hummocks of tiny grey rosettes with stemless, pale-yellow flowers - almost as hard and stone-like as the coral which gives it its specific name. Alpine-house until we know otherwise.) (10+ seeds) D

13678 BARNADESIA ARBOREA Ecuador, Pichincha, crater of Volcan Pululahua (N of Quito). c. 3000 m. Dense, low, scrubby, montane forest on steep slope. 5.7.93 (An attractive composite shrub in the Mutisieae with small, spine-tipped leaves & many flower-heads with rose-purple ray-florets. Endemic to Ecuador. 2 m.) (10+ seeds) C

14141 BARNEOUDIA MAJOR Arg., Mendoza, Malargue, Valle de las Lenas. 2450 m. Stony slopes & talus above late snow-patch. 5.2.94 (A tuberous-rooted, summer-dormant member of the Ranunculaceae like a surreal eranthis. No basal leaves but the yellow flower with many narrow tepals sits on a brown-green involucre. Few.) (8 seeds) E

14165 BERBERIS EMPETRIFOLIA Arg., Mendoza, Tunuyan, Passo Argentino. 4000+ m. Exposed, stony slopes. 8.2.94 (A prostrate, very high altitude form of this widespread mountain-plant. Narrow, glossy, spine-tipped evergreen leaves and rich-yellow flowers followed by bloomy purple-black fruits. Suited to rock-garden.) (10+ seeds) C

14159 BERBERIS GREVILLEANA Arg., Mendoza, Tunuyan, W of Tunuyan. 2700 m. Open areas in sandy soil. 8.2.94 (An endemic of Mendoza & San Juan provinces. About 1.5 m with big, glossy spines, yellow flowers and shiny, red fruits. This & the next are named tentatively (without flowers) from the 'Flora Patagonica'.) (10 seeds) C

14238 BERBERIS MONTANA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1600 m. Undergrowth in Nothofagus forest. 17.2.94 (Deciduous with bloomy black fruits. About 1 m. here but said to grow to 4 m. If this, flowers are yellow, "strikingly large and jonquil-like." Should be absolutely hardy.) (10 seeds) C

13834 BERBERIS SP. Ecuador, Pichincha, Cerro Pichincha, E slope above Quito. 3200 m. Scrub. 17.7.93 (About 2 m. high & rather like B. darwinii in its prickly, glossy, evergreen foliage. Showy, drooping racemes of large orange flowers & black fruits. Has germinated & grown on well but unlikely to be fully hardy in UK.)(8 seeds) C

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B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

13645 BIDENS HUMILIS Ecuador, Pichincha, above Oton. 2700 m. Open banks in sandy, stony clay. 3.7.93 (Colourful little composite widespread in Ecuador, usually in dryish habitats. There may be many intergrading taxa involved. Prostrate stems with small, cut leaves & bright yellow heads like little, single dahlias.) (15+) C

BOMAREA A magnificent genus too little-known in cultivation. Mainly climbing, tuberous-rooted perennials in Alstroemeriaceae with regular flowers (unlike Alstroemeria), centred on the N Andes. These higher altitude collections should grow easily under frost-free conditions & many may prove permanent in a sheltered site against a wall outside in the UK. Seed germinates easily, if rather slowly & irregularly, in cool but frost-free conditions. Seedlings grow on well & are probably best outside in summer. We are grateful to Jill Cowley (RBG Kew, UK) for her determinations of the herbarium specimens of the following.

13866 BOMAREA ISOPETALA Ecuador, Azuay, Rio Quinuas valley, WNW of Cuenca. 3250 m. Vestigial stands of montane scrub. 21.7.93 (Climbing to 2 m. with dark, leathery leaves. Heads of rose-pink & green flowers.) (8 seeds) E

13987 BOMAREA PATACOCENSIS Ecuador, Imbabura, NW of Laguna Mojanda (S of Otavalo). 3700 m. Dense 'elfin forest' at edge of paramo. 9.7.93 (The highest altitude collection - and the largest species - stout, downy stems climbing to 2-3 m. with leathery leaves & enormous heads of up to 120 huge, chocolate-spotted, apricot--yellow bells. Appeared to intergrade with B. m. caldasii lower down - not all seen in flower.) (8 seeds) E

13627 BOMAREA MULTIFLORA subsp. CALDASII Ecuador, Napo, Papallacta. 3100 m. Margins of montane forest. 1.7.93 (Specimens identified as this cover a disconcerting range of plants, varying in habit, proportions of peri--anth segments and degree of speckling inside the flowers. This climbed to 2-3 m. with heads of up to 50 flowers - wholly unspotted with scarlet outer segments and orange inner ones.) (8 seeds) C

13833 BOMAREA MULTIFLORA subsp. CALDASII Ecuador, Pichincha, Cerro Pichincha above Quito. 3200 m. Among scrub. 17.7.93 (Much more slender to 2 m. with about 12 pendant flowers. Spotted orange inner segments.) (8 seeds) C

13761 BOMAREA SP. Ecuador, Carchi, SW of Tulcan. 3200 m. Dense, montane scrub. 8.7.93 (No dried specimen so no definite name - we thought this might be B. caldasii but it seems quite distinct from the preceding. From a cold area, swathed in drifting cloud, on the Colombian border. Spectacular rounded heads of about 50, large tubular-campanulate flowers, orange scarlet, evenly speckled all over with maroon inside. 2-3 m.) (8 seeds) C

BRACHYOTUM A genus of the Melastomataceae with about 50 species, mainly extremely local dwarf shrubs of the high altitude moorland - the paramo. These have germinated easily but seed is extremely fine - treat as for Rhododendron (see back page) or the hardy Gesneriaceae. Grow outside in summer in UK. Will tolerate frost.

13876 BRACHYOTUM JAMESONII Ecuador, Azuay, WNW of Cuenca to Molleturo. 3700 m. Moist, open slopes in paramo. 21.7.94 (Erect ericoid shrubs to about 50 cm. with narrow, tubular, pendant violet-black flowers. Only known from around here & the Paramo de Tinajillas in Azuay. May be growable in a peat-bed in S & W UK.) (30+ seeds) E

13735 BRACHYOTUM LEDIFOLIUM Ecuador, Carchi, NW of El Carmelo (SSE from Tulcan). 3300 m. Montane scrub on steep slope in paramo. 7.7.93 (Most widespread species in Ecuador, from here S to Cotopaxi. About 1 m. high with drooping pale yellow flowers from red calyces on stiff, narrow-leaved shrubs.) (50+ seeds) D

14429 CAJOPHORA CORONATA Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3200 m. Among large rocks & boulders in rock-slide on steep slope. 8.3.94 (Growing at up to 3500 m. around the great mountains of Aconcagua & Tupungato, this has to be a prime contender for the title of the world's most incredible high--alpine plant. Around the base of a lush clump of dissected, dark-green foliage, like a tuft of the spiniest of Acanthus spinosus forms, flop out enormous, 5-ribbed lampshades, about 7 cm. across, of diaphanous white silk. A long-lived perennial, which can be propagated from root-cuttings, it will not have a future in the garden-centre trade - "el inconveniente de su inexpugnable proteccion", as A Ruiz Leal puts it, assures that. Leaves, stems & flowers are covered in stinging hairs. Stung by one raised from B.C. & W. seed in the early 1970's, the late Roy Elliott decapitated it and "the entire plant (was) carried at arms-length to the dust--bin." We think it is so spectacular & amazing that it is worth donning a pair of gloves for.) (30+ seeds) C

CALANDRINIA With perhaps up to 100 species, this mainly S American genus differs most obviously from its fellow member of the Portulacaceae, Lewisia, in its seed capsule, opening by apical valves, rather than the circumscissile one of Lewisia. The striking, perennial, high altitude species of the S Andes exhibit great diversity and have been divided into several sections, each comprising very different groups of plants from the gardener's viewpoint. Recent studies in the Portulacaceae by Carolin in Australia and by Hershkovitz and Ford in the U.S.A. have resulted in a different circumscription of this unsatisfactory genus with new combinations under Montiopsis published by Ford in 1993 for the species previously included in Sect. Dianth--oideae and Sect. Hirsutae. We believe splitting this genus is of some help to gardeners and the species involved will be found under Montiopsis. We are grateful to Donna Ford (Northeast Missouri State University) for her determinations of material and other comments. Dr. Ford's work on Calandrinia s.l. is ongoing and for the present we list here members of Calandrinia sect. Acaules, superficially Lewisia-like species.

14214 CALANDRINIA AFFINIS Arg., Neuquen, Norquin, S of Copahue. 2160 m. Among volcanic debris on open, level, stony steppe. 15.2.94 (Rosettes of linear leaves with white to pale-pink flowers. Donna Ford identified all our 1991 colls. from near Copahue as C. colchaguensis but, after visiting the colonies here in flower concluded they were a intergrading 'swarm' between the two species. These seeds are from narrow-leaved plants, growing separately, and while maybe not 'pure' may be horticulturally superior.) (20+ seeds) C

14258 CALANDRINIA CAESPITOSA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1800 m. Talus & rock fissures on steep slopes. 17.2.94 (A superlative plant now being successfully grown in both Europe & the USA. Rolf Fiedler describing it here (as "C. portulacoides" - it has possibly also been described as C. skottsbergii) states it "forms low armeria-like tufts of slightly succulent narrow leaves and has big yellowish-orange flowers up to 5 cm. across." Others describe it as "yellow suffused orange" and "deep gold" - the Lewisia tweedyi of the S Andes, growable with careful alpine-house cultivation.) (20+ seeds) E

14340 CALANDRINIA CAESPITOSA Arg., Mendoza, Malargue, Valle de las Lenas. 2660 m. Along snow-melt gulleys & stony areas occupied by late snow-patches. 25.2.94 (A brilliant, jewel-like little plant, which deserves recognition at some level separated from the preceding. Altogether smaller with many little bright orange-scarlet flowers with glossy yellow centres, both garish & charming. It grew well in the 1970's from a B.C. & W. collection (as C. rupestris) both in an alpine-house pan and outside in a trough or scree-bed. A plant of seasonally wet habitats, it should be quite possible to maintain this in the UK.) (20+ seeds) D

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C	:	$4.00	£2.50	DM6, -	FF21. -	F	:	$9.00	£6.00	DM15, -	FF50. -

14213 CALANDRINIA COLCHAGUENSIS Arg., Neuquen, Norquin, S of Copahue. 2160 m. Among volcanic debris on open level, stony steppe. 15.2.94 (See comments under C. affinis. Closely mounded rosettes of dark-green, strap-shaped leaves with a succession of lilac or rose flowers in spring. In 1972, John Watson thought it "a paragon to delight with quiet perfection...the fairest of all we saw in the Andes.") (20+ seeds) D

14204 CALANDRINIA COLCHAGUENSIS Arg., Neuquen, Norquin, between Caviahue & Copahue. 1980 m. Open, level, stony area. 14.2.94 (Growing around the edge of what had been a melt-water puddle - smaller with very broad leaves in dark green tinged with red - may be the habitat or may be "purer" C. colchaguensis.) (20+ seeds) D

14339 CALANDRINIA GRAMINIFOLIA Arg., Mendoza, Malargue, Valle de las Lenas. 2660 m. Along snow-melt gulleys and in stony areas occupied by late snow-patches. 25.2.94 (A true snow-melt plant, going dormant as the ground dries out - to us the most delectable but our taste may be vulgar. A rosette of very narrow, fleshy leaves filled with huge (the largest of this group, 4 cm. across) flowers in sugar-pink or white, or white edged with pink, always with a rich-yellow centre. Stunningly illustrated on the dust-cover of 'Flora Patagonica', Part IVa, this is the Lewisia rediviva of the Andes - in cultivation it should be tried in similar conditions - if it can be grown & flowered well, it will rival it but comparison is unjust.) (20+ seeds) E

CALCEOLARIA This is an amazingly diverse genus in the Andes - from tiny alpines through a complexity of shrubby species to tall climbers. The excellent account by Ulf Molau in the 'Flora of Ecuador' made identi--fication straightforward for this country but, unfortunately, there is no similar source of information on the species of Chile & Argentina. There are, therefore, many unidentified collections here. Even in the case of some named southern ones, we have done no more than provide an informed guess - a great deal more invest--gation and field-work on living material needs to be done in the south. Seeds are extremely small and need careful handling to avoid losing seedlings through damping-off but they usually germinate easily and grow on rapidly - several Ecuador collections flowered the first year grown outside in the UK.

14428 CALCEOLARIA ARACHNOIDEA Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3200 m. Among igneous rocks on steep slopes. 8.3.94 (Tight basal rosettes of white-felted leaves send up 20 cm. stems of black--maroon bubbles. Easy enough & hardy if protected from too much wetness from late summer on.) (100+ seeds) C

14105 CALCEOLARIA BIFLORA Arg., Mendoza, Lujan, Cordon del Plata W of Portrellillos. 2600 m. Wet stone slide on steep slope. 2.2.94 (One of a variable group (this would be C. luxurians, if 'split') characteristic of wet-flushes & the sides of snow-melt streams. Mats of flat plantain-rosettes & masses of tiny, dancing, yellow bubbles on 20 cm. stems. Wet-growers easily cultivated outside in the UK.) (100+ seeds) B

14254 CALCEOLARIA BIFLORA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Moist sides of gulley recently free of snow. 17.2.94 (Not seen in flower but along similar lines.) (100+ seeds) B

13840 CALCEOLARIA ERICOIDES Ecuador, Pichincha, Cerro Pichincha, E slope above Quito. 3600 m. Montane scrub on steep slopes. 17.7.93 (An extraordinary, erect shrub, up to 1 m., with tiny, linear leaves, altogether like Erica arborea but with upper stems packed with little, upturned sulphur-yellow bubble-flowers.) (100+ seeds) D

13818 CALCEOLARIA ERICOIDES Ecuador, Chimborazo, NE slope of valley of Rio Chimborazo. 4000 m. Steep, stony slope. 15.7.93 (Bright lemon-yellow form at about the altitudinal limit for the species. This was a great success last summer in Jack Elliott's garden (Kent, UK) but we have yet to establish frost-tolerance.) (100+ seeds) D

13911 CALCEOLARIA HELIANTHEMOIDES Ecuador, Azuay, Paramo de Tinajillas, WNW of Nabon. 3200 m. Dry grass paramo with sparse scrub. 22.7.93 (About 30 cm. high, woody-based with small, dark, leathery leaves & wiry stems of little, sulphur-yellow flowers. A dainty plant, sympatric here with the closely allied C. lavandulifolia (hybrids have never been found) - this may be a mixed collection. No problem to sort them out.) (100+ seeds) C

14296 CALCEOLARIA LAGUNAE-BLANCAE Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Rock crevices on exposed ridge. 20.2.94 (A compact, saxatile alpine, running along rock-fissures with small rosettes sending up yellow flowers speckled with crimson inside the lower, rounded pouch. Treat hard to keep it tight.) (100+ seeds) D

14406 CALCEOLARIA LANCEOLATA var. PUSILLA Chile, VIII, Nuble, Nevados de Chillan. 2200 m. Igneous rock crevices on exposed ridge. 4.3.94 (Of similar habit from a similar habitat. Differently structured yellow flowers - these dwarf alpine species vary a lot in flower (when you get your eye in) & can be very local.) (100+ seeds) D

14128 CALCEOLARIA MENDOCINA Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Dryish, stony areas below snow--patches. 4.2.94 (Forming wide, flat mats of rosettes which shrivel & dry as the ground dries after snow-melt. Short-stemmed yellow pouches. Name is a wild guess but the plant looked worthwhile.) (100+ seeds) D

13888 CALCEOLARIA NIVALIS Ecuador, Azuay, upper Rio Miguir valley, WNW of Cuenca to Molleturo. 3400 m. Montane scrub in steep-sided gulley. 21.7.93 (About 50 cm. high, neat & shrubby with shining, dark, Ligustrum--like leaves and cymes of bright-yellow bubbles with closed mouths. From S Ecuador into N Peru.) (100+ seeds) D

13736 CALCEOLARIA PERFOLIATA Ecuador, Carchi, NW of El Carmelo (SSE from Tulcan). 3100-3300 m. Montane scrub on steep slopes. 8.7.93 (A representative of the several scandent herbaceous perennials. Climbing to 4 m. with downy leaves and a multitude of bright yellow flowers. From a cold, very wet area.) (100+ seeds) B

14450 CALCEOLARIA PINIFOLIA Arg., Mendoza, Lujan, Cordon del Plata W of Portrellillos. 2800 m. Fissures & ledges on igneous cliffs. 11.3.94 (An extraordinary saxatile species, like no other, distributed locally N from here into the drier ranges of San Juan & Coquimbo. Tufts of dark, leathery, narrow leaves, just like clumps of pine-needles stuffed into fissures, with yellow flowers - horizontal, cradle-shaped lips speckled crimson inside. A woody-based, extremely long-lived xerophyte which proved easy to grow (though not so easy to flower well in our experience) from the 1970-71 B.C. & W. coll. in year-round alpine-house conditions.) (100+ seeds) E

14308 CALCEOLARIA TENELLA Arg., Rio Negro, Bariloche, Cerro Tronador E side. 1300 m. Fissures on shaded igneous cliffs. 21.2.94 (Creeping pads of minute rosettes with crimson-speckled, lemon-yellow fairy-flowers on thread -like 2-3 cm. stems. A tiny sweetie well-known in gardens where it can prove tender - we hope this collection from far S not much below the glaciers on mighty Tronador will prove hardy almost everywhere.) (100+ seeds) C

12591 CALCEOLARIA SP. Chile, IX, Cordillera de Nahuelbuta, W of Vegas Blancas. 1200 m. Deciduous woodland. 26.2.91 (Seed-bank material from an area not visited in 1994. Shade-lover with many fine 60 cm. stems.) (100+ seeds) B

14172 CALCEOLARIA SP. Arg., Mendoza, Tunuyan, Passo Argentino. 4000+ m. In shade along bases of large boulders. 8.2.94 (Compact alpine from an extremely high altitude - may be what we think is possibly C. volckmannii as seen on the N side of the same (Tupungato) massif with big angled, neatly folded yellow pouches.)(100+ seeds) E

14224 CALCEOLARIA SP. Arg., Neuquen, Norquin, E of Copahue. 1780 m. Among igneous rocks on dryish, stony slope. (Summer-dormant, not in flower. Mounds of stout basal rosettes. May be akin to C. pennellii.) (100+ seeds) C

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C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

14399 CALCEOLARIA SP. Chile, VII, Nuble, SW of Termas de Chillan. 1400 m. Among scrub by stream. 3.3.93 (50-60 cm. high shrub rather like C. integrifolia but with toothed, pointed leaves. Not seen in flower.)(100+ seeds) C

14430 CALCEOLARIA SP. Chile, Reg. Metro., NE of Valle Nevado. 3200 m. Among large rocks & boulders in rock-slide on steep slope. 8.3.94 (A large, lush plant to find at such an altitude - just as unexpected here as the Cajophora coronata it was growing with. Big basal leaves and 60-70 cm. branching stems with a profusion of yellow pouches. For the hardy-plant enthusiast to try in a well-drained site - utterly hardy.) (100+ seeds) D

14151 CASSIA ARNOTTIANA (var. arnottiana) Arg., Mendoza, Malargue, ESE of Los Molles. 2000 m. Open stony areas in valley bottom. 6.2.94 (This & the next are two of the very few truly hardy members of the vast genus Cassia, with hundreds of species widespread through the tropics. The four which penetrate S into Argentinian Patagonia all grow in localised colonies & this achieves the highest altitude - up to 2800 m. The climate here can be bleak with snow & hail storms punctuating the hot, dry summers and severe winters. A dwarf shrub 15-50 cm. high, with upright stems clothed with leathery, grey-green, pinnate leaves and bearing terminal racemes of up to 5 large flowers of brilliant orange-yellow. To be tried in an open, sunny site.) (8 seeds) D

14184 CASSIA KURTZII Arg., Mendoza, Malargue, S of Malargue. 1750 m. Open, stony steppe. 13.2.94 (Also a dwarf shrub, about 50 cm. high, but of quite different aspect with dark green stems & tiny leaves. A profusion of bright chrome-yellow flowers. Compared by Harold Comber, who collected it around Zapala in 1925 (his speci--mens were described as a new species, C. egregia), to Genista tinctoria, not inappropriately.) (10 seeds) D

14200 CHUSQUEA MONTANA Arg., Neuquen, Norquin, NE of Caviahue. 1720 m. Open level steppe. 14.2.94 (Dwarf, high altitude bamboo, named according to 'Flora Patagonica'. As these flower so seldom, it is not often that it it is possible to collect seed, though we are unsure how much is fertile - decent packet sent! About 1 m.) C

13841 CLEMATIS SP. Ecuador, Pichincha, Cerro Pichincha. 3600 m. Montane scrub on steep slopes. 17.7.93 (Climbing perennial to 4 m. - not seen in flower and we have no idea what they will be like.) (15+ seeds) C

13931 CLEOME SP. Ecuador, Canar, NW of Canar to Chunchi. 2400 m. Dense montane scrub on steep, wet slopes. 23.7.93 (Erect, 2-3 m. shrub. Strange yellowish flowers. Fruits like hanging pink-felt sausages. Frost-free.) (10+) B

14363 CRUCKSHANKSIA HYMENODON Chile, Reg. Metro., Lagunillas (ENE of San Jose de Maipo). 2300 m. Exposed, stony area on steep, NW-facing slope. 1.3.94 (Quite unobtrusive out of flower, like a choice little alyssum with rather fleshy, grey leaves on prostrate stems spreading among the stones, but, when in flower, it puts on a display unparalleled in exotic, extrovert flamboyance. Each head of long-tubed flowers in bright orange--yellow is surrounded by a flaring skirt of violet-pink sepals - the sort of daring colour combination to be seen in an early Hollywood musical. A French customer told us he flowered it to his satisfaction in a scree-bed but, as far as we know, it has not yet danced on to the British show-bench.) (15+ seeds) E

* CYPELLA HERBERTII Ex an A. Castillo coll. : Arg., Buenos Aires Prov. Summer-dormant marshland 'tigridia' - orange & yellow marked with purple. Marginally hardy in UK - easy under glass. 50 cm. (20+ seeds) B

* CYPELLA HAUTHALII subsp. OPALINA See our 'Back Yard' extension for hand-pollinated seed. (20+ seeds) E

14149 DRABA GILLIESII Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Igneous rock crevices. 5.2.94 (Tufts of grey-green leaves and heads of white flowers on 5 cm. stems. Grows up to 3600 m. in Mendoza.) (20+ seeds) C

14326 DRABA MAGELLANICA Arg., Neuquen, Cerro Atravesado, W of Zapala. 2200 m. Exposed, stony slopes. 23.2.94 (Also white-flowered, extending S from around here to Tierra del Fuego. About 5 cm. in flower.) (20+ seeds) C

12606 EMBOTHRIUM COCCINEUM Chile, X, Llanquihue, W of Ensenada. 200 m., In scrub & at margins of woodland. 1.3.91 (Refrigerated seed-bank material of these from our 1991 colls. - we were not far enough S in Chile in 1994 for these famous fire-bushes with dense racemes of tubular, orange-scarlet flowers. More or less evergreen, these can reach 10 m. in height but are usually much less. Should be reasonably hardy here.) (20+ seeds) B

12620 EMBOTHRIUM COCCINEUM Chile, X, Llanquihue, Volcan Osorno. c. 1000 m. Exposed slopes near tree-line. 3.3.91 (From stunted plants surviving here because of the deep snow-cover - only about 1 m. high.) (10+ seeds) D

* EMBOTHRIUM COCCINEUM Welsh seed from cultivated stock, probably derived from Argentinian colls. (15+ seeds) B

14008 EPHEDRA AMERICANA Ecuador, Cotopaxi, N slope of Volcan Cotopaxi. 4200 m. Exposed, stony areas. 12.7.93 (Tight, prostrate mats of greyish, interlacing stems with a profusion of orange-scarlet fruits.) (8 seeds) C

14156 EPHEDRA SP. Arg., Mendoza, Tunuyan, W of Tunuyan. 2500 m. Among scrub on steep, loose, stone-slide. 8.2.94 (Provided a spectacular display of scarlet fruits on stiff, erect clumps of leafless stems. 50cm)(10+ fruits) C

14323 EPHEDRA SP. Arg., Neuquen, Cerro Atravesado, W of Zapala. 2200 m. Exposed ridge in stony soil with sparse vegetation. 23.2.94 (Similar, prostrate habit to Ecuador coll. but translucent, lemon fruits.) (8 seeds) C

14233 ERYNGIUM EBURNEUM Arg., Neuquen, Norquin, Rio Alumine valley. c. 1000 m. Open stony slopes. 16.2.94 (Basal clumps of narrow, evergreen, entire, spine-edged leaves. Branching, 2 m. stems with many small green-white heads. Name is a guess - Comber's colls. from around here were named E. paniculatum at Kew.) (20+ seeds) B

13912 ERYNGIUM HUMILE Ecuador, Azuay, Paramo de Tinajillas, WNW of Nabon. 3200 m. Among grass tussocks on open paramo. 22.7.93 (Tiny rosettes of entire, spine-edged leaves & branching stems of heads with papery bracts in silver-white around a dome of navy-blue flowers. Like a miniature, blue & white Astrantia maxima. Very polymorphic - a 'good' form, 2-30 cm. high here. Flowered in UK in 1994 - scree or raised bed.) (10+ seeds) D

13472 ESPELETIA HARTWEGIANA Ecuador, Carchi, NW of El Carmelo (SSE of Tulcan). 3300 m. Wet paramo, in black peaty soil. 8.7.93 (The arborescent alpines of this incredible genus, characteristic of the Colombian & Venezuelan paramo, just enter Ecuador in this cold, mist-shrouded corner on the Colombian border. All wrapped up in thick, white wool but quite conventional (wool-wrapped) daisies in dark, dull yellow. This has germinated at the RBG Edinburgh & elsewhere. Venezuelan material is being maintained in character in the Kew alpine-house (even starting to form trunks) - outside from March to November may be just as good or better.) (10 seeds) D

FERNS We have listed all the ferns, including S American colls., together after Section II in this list.

12577 FRANCOA SONCHIFOLIA Chile, VIII, Bio Bio, SE of Antuco. 500 m. Steep side of wet gulley. 24.2.91 (Though long associated with Victorian conservatories, we have always found this beautiful & variable herbaceous member of the Saxifragaceae hardy in several parts of the UK - it sows itself outside here. This form has lobed, almost hairless leaves & 60 cm. wands of pink flowers. Usually grows on damp shaded cliffs)(50+ seeds) B

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B :	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E :	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C :	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F :	$9.00	;	£6.00	;	DM15, -	;	FF50. -

FUCHSIA These should be possible outside in the UK using some imagination - if trying them against a wall, choose a N or W facing one. They do not need high light intensity nor will they enjoy hot summer conditions - they are unlikely to thrive under glass in summer. Seed germinated easily & young plants have been over--wintered under glass - taking cuttings off the lead shoot of the seedlings will give sturdier plants which will grow on faster than the seedlings themselves. Planting outside this spring will enable us to see how frost-tolerant any of these may be. The genus was dealt with a long time ago for the 'Flora of Ecuador' (by P. Munz of Californian fame) ; his treatment does not work convincingly in the field. It appears to be a "difficult" genus in Ecuador with much hybridization or intergradation occurring. The first three colls. are from what appear to be "pure" stands but the key does not work well. All are about 2 m. high.

13733 FUCHSIA AYAVACENSIS Ecuador, Carchi, NW of El Carmelo (SSE of Tulcan). 3100-3300 m. Montane scrub on steep slopes. 8.7.93 (Beautiful & distinct, light crimson-red flowers with expanded, rounded petals.) (20+ seeds) D

13957 FUCHSIA CANESCENS Ecuador, Napo, Paramo Guamani WNW of Papallacta. 3700 m. Dense montane scrub at edge of paramo. 27.7.93 (A marvellous thing at about the altitudinal limit for the genus - stiff, upright, lichen--covered shrubs with thick, dark, glossy leaves and elegant, fleshy, downy flowers in luminous scarlet. The seedlings so far are quite unfuchsia-like with rather large, downy leaves - we await development!)(20+ seeds) D

13770 FUCHSIA CORYMBIFLORA Ecuador, Carchi, Huaca (S of Tulcan). 2700 m. Among scrub. 9.7.93 (Panicle-like inflorescences, distinct from the others here, which have axillary flowers. Graceful orange flowers with green-tipped sepals in huge heads. Likely to be the least frost-tolerant but spectacular.) (20+ seeds) C

13865 FUCHSIA aff. LOXENSIS Ecuador, Azuay, Rio Quinuas valley, WNW of Cuenca. 3250 m. Vestigial stands of dense montane scrub. 21.7.93 (There appears to be the remains of a hybrid-swarm here, possibly involving another species. This is from what seemed nearest F. loxensis. Scarlet flowers and a scandent habit - worth trying against a wall in UK. Seedlings have rounded, glossy leaves and sucker underground.) (20+ seeds) C

13864 FUCHSIA aff. LOXENSIS Same locality as above. From plants which would not key-out as F. loxensis.(20+ seeds) C

14301 FUCHSIA MAGELLANICA Arg., Rio Negro, Bariloche, Cerro Tronador, E side. 1200 m. Among igneous boulders on steep slopes. 21.2.94 (A profusion of bright red and purple flowers. The hardiest species from a high, cold locality, though doubtless well protected here by a thick snow-cover, in a very distinct form with strongly reflexed sepals - there is so much local variation that infraspecific taxa seem pointless. 1 m.) (20+ seeds) B

GAULTHERIA The genus now includes Pernettya and it is quite extensive in the Andes, especially in the North. The southern collections should be fully temperature-hardy ; those from Ecuador should be sufficiently protected by an alpine-house or cold-greenhouse in the UK - several may prove hardy outside. Seed is small & should be treated as for Rhododendron (back-page). We are indebted to David Middleton (University of Dublin, Ireland) for identifying herbarium sheets of the collections from Ecuador, which he has visited himself.

13906 GAULTHERIA AMOENA Ecuador, Azuay, Paramo de Tinajillas, WNW of Nabon. 3200 m. Sparse, shrubby forest with dry, grass paramo. 22.7.93 (A very pleasant plant of the S Ecuadorean dry-scrub, a most distinct grouping of plants which occurs in the S of the country, towards the border with Peru. Prostrate with pink flowers and pink new growth, maturing to bronze-tinted, leathery leaves. Bloomy, black fruits.) (30+ seeds) D

13740 GAULTHERIA FOLIOLOSA Ecuador, Carchi, NE of El Carmelo (SSE of Tulcan). 3100-3300 m. On sloping rock-slabs with sparse vegetation. 8.7.93 (A tiny, very dwarf plant. White flowers & pearly white fruits.) (30+ seeds) D

13738 GAULTHERIA GLOMERATA Ecuador, Carchi, NE of El Carmelo (SSE of Tulcan). 3100-3300 m. On sloping rock-slabs with sparse vegetation. 8.7.93 (Lax, prostrate stems with bright red flowers & fruits. 15 cm.) (30+ seeds) D

GAULTHERIA MYRSINOIDES Unfortunately from a gardener's viewpoint, Dr. Middleton's work on Pernettya led him to abandon any attempt to divide this into infraspecific taxa because of the "large and almost continuous variation in this species" - this name covers plants spread from Central America down the whole length of the Andes and grown in gardens under such names as Pernettya prostrata, P. ciliata, P. pentlandii, P. buxifolia and so on. This is the same problem as exists with a species like Eriogonum ovalifolium or within genera like Narcissus and Helleborus. Life seems simple when you have but a few plants in a garden or as dried specimens.

13712 GAULTHERIA MYRSINOIDES Ecuador, Imbabura, above Laguna Cuicocha (W of Cotacachi). 3200 m. Low, montane scrub on steep slopes. 7.7.93 (Attractive, neat, 30 cm. shrubs with large, black fruits - most distinct!) (50+) C

13844 GAULTHERIA MYRSINOIDES Ecuador, Pichincha, Cerro Pichincha, E slope above Quito. 3800 m. Exposed grass paramo. 17.7.93 (White flowers and wine-purple fruits. About 20 cm. high here in an open site.) (50+ seeds) C

14004 GAULTHERIA MYRSINOIDES Ecuador, Cotopaxi, WNW of Volcan Cotopaxi, above Rio Daule. 3300 m. Open stony areas. 12.7.93 (Low habit, about 15 cm. high, with white flowers and maroon fruits.) (50+ seeds) C

* 12617 GAULTHERIA MYRSINOIDES Chile, X, Volcan Osorno, N of Ensenada. 1300 m. Open slopes in volcanic ash. (From parents with rose-red to pink fruits. Easy in cultivation in an acid soil in UK. About 30 cm.) (50+ seeds) C

14250 GAULTHERIA PUMILA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Moist sides of gulley. 17.2.94 (= Pernettya pumila. Rooting mats with an exceptional display of berries which started crimson and ended up white - the opposite to what might have been expected. White flowers.) (50+ seeds) D

14216 GAULTHERIA PUMILA var. LEUCOCARPA Arg., Neuquen, Norquin, Volcan Copahue. 2100 m. Among volcanic rocks on open, stony slopes. 15.2.94 (= Pernettya leucocarpa. Tiny, creeping evergreen shrub, about 3 cm. high, with pearly, pinkish white flower clusters followed by white fruits. A delight in a trough.) (30+ seeds) D

* GAULTHERA RIGIDA Ex J. Luteyn 10243 - from a coll. by Dr. Luteyn who is working on Ericaceae for the 'Flora of Ecuador'. Grows well with us under glass. Trailing stems & clusters of black fruits. (30+ seeds) C

13972 GAULTHERIA SP. Ecuador, Imbabura, NW of Laguna Mojanda (S of Otavalo). 3700 m. Edge of dense montane scrub on tree-line. 28.7.93 (No dried specimen so no name yet. Taller than any other here - an evergreen shrub about 60 cm. high providing a spectacular display of massed, large, pearl-pink to white fruits.) (50+ seeds) C

GENTIANELLA The Andean gentians are among the high altitude plants most likely to excite the alpine-plant enthusiast. While at their most diverse in Peru & Bolivia, the more northern & southern species might prove more growable. There are a few members of Gentiana in the Andes but most of the gentians here are now placed in Gentianella. The family as a whole is at present under review for the 'Flora of Ecuador' but Eona Atken (RBG Edinburgh) has kindly provided determinations for the collections from Ecuador. Seed appears to have germinated well with most growers and we have seen first-year seedlings looking promising in the UK. These will be best outside in the UK from March to November at least. Though the species from Ecuador are used to brief periods at very low temperatures, they are likely to resent the drought resulting from long freezings.

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

14003 GENTIANELLA CERASTIOIDES Ecuador, Cotopaxi, WNW of Volcan Cotopaxi, above Rio Daule. 3300 m. Open stony areas among Gaultheria scrub. 12.7.93 (A most attractive, floriferous plant with neat basal leaves and upward-facing, lavender-blue, cup-shaped flowers, up to 5 on each stem of 5-10 cm.) (30+ seeds) E

14011 GENTIANELLA CERASTIOIDES Ecuador, Cotopaxi, N slope of Volcan Cotopaxi. 4200 m. Exposed, stony areas, in volcanic ash & debris. 12.7.93 (Hummocks of tight rosettes of tiny, leathery leaves covered with breathtaking flowers in pink to carmine with occasional whites. While we could be convinced these are either end of a cline we are more dubious that our 13870 from sopping turf in Azuay is the same taxon as a plant from these windswept ash-beds. These have both germinated & remain distinct as seedlings - grow outside.) (30+ seeds) F

13848 GENTIANELLA DIFFUSA Ecuador, Pichincha, Cerro Pichincha, E slope above Quito. 3800 m. Exposed grass paramo. 17.7.93 (Upright with stems of about 15 cm. closely set with wide-open lilac flowers.) (30+ seeds) D

13880 GENTIANELLA HIRCULUS Ecuador, Azuay, WNW of Cuenca to Molleturo, SE of Laguna Toreadora. 3850 m. Open, stony areas in paramo. 21.7.93 (A distinct & spectacular little plant narrowly restricted to this miserably cold, wet area. Tuffets of little, narrow, dark-green leaves with profuse, short-stemmed bright yellow flowers, in which each lobe has a scarlet flame up one side, so that they look like tiny, red & yellow striped balloons. In general, germinated well and has actually been listed by a few nurseries from this coll. It will need care to maintain it in gardens - grow it outside in UK but protect against prolonged freezing.) (30+ seeds) E

14452 GENTIANELLA MULTICAULIS Arg., Mendoza, Lujan, Cordon del Plata, W of Portrellillos. 2900 m. Steep, open stony, SW-facing slopes. 11.3.94 (Attractive, wide-open, veined pale-violet flowers - not unlike the 14003 coll. of G. cerastioides or a lilac-blue version of some NZ species. Grows up to 3500 m. on Aconcagua and Tupungato - will be absolutely hardy & maybe easier than the Ecuador species. Keep it cool.) (30+ seeds) E

13890 GENTIANELLA STELLARIOIDES Ecuador, Azuay, upper Rio Miguir valley, WNW of Cuenca to Molleturo. 3400 m. Among montane scrub in steep-sided gulley. 21.7.93 (Campanula-like, starry, deep lilac flowers. 20 cm.) (30+) D

GENTIANELLA SP. H. Beaufort-Murphy coll. : Peru, Cajamarca. 3000 m. Wet flood-plain & meadows. (We have a little seed left in the refrigerator from Helen's 1992 coll. from this seldom-visited, limestone area up in N Peru. This was described as about 20 cm. high with waxy, white flowers.) (30+ seeds) D

14100 GRINDELIA CHILOENSIS Arg., Mendoza, Lujan, Cordon del Plata, W of Portrellillos. 2000 m. Among scrub on river-gravels in valley bottom. 2.2.94 (A showy composite, up to 1 m. high, characteristic of the dry Patagonian steppes (not Chile). Woody perennial with thick, narrow, toothed leaves and erect stems carrying big buds, oozing with white latex, opening to large, bright yellow heads with so many rays that they appear semi-double. Absolutely temperature-hardy but can resent winter-wet in UK - good drainage, sun.) (20+ seeds) B

* 12610 GUNNERA MAGELLANICA Chile, X, Llanquihue, N of Ensenada. 1200 m. Margin of Nothofagus woodland at tree-line. (Creeping, rooting stems with rounded dark green leaves make efficient ground-cover here. This form coll. in 1991 is hermaphrodite & provides us with profuse scarlet-orange fruiting heads in late summer.) (20+ seeds) B

* HABRANTHUS ESTENSIS Ex a J.A. Castillo coll. : Uruguay, Maldonado, Punta del Este. (An "elegant & striking" plant which has established & seeds freely with Stan Farwig & Vic Girard (Concord, Ca., USA), who sent this seed. Rich-pink, funnel-shaped flowers, about 8 cm. long & 5 cm. across, in 2-flowered umbels on stems of 30 cm. or more. A summer-grower, flowering in late summer, it has proved hardy with Stan & Vic (they can get sharp, if brief, freezing) so should need only frost-free conditions if stored dry in winter.) (20+ seeds) C

14332 HAPLOPAPPUS SP. Arg., Mendoza, Malargue, Valle de las Lenas. 2160 m. Stony banks in steppe. 25.2.94 (Close mats of small, dark green leaves with many, short-stemmed, bright yellow daisies. It is always difficult to obtain much seed of these composites - little sets and most of that is eaten. A few.) (8 seeds) C

13948 HYPOCHAERIS SP. Ecuador, Pichincha, SE of Pifo. 3300 m. Dryish turf - in sandy clay. 27.7.93 (Creamy-white composite forming a mound of large, stemless heads on a flat, often red-tinted, rosette.) (10+ seeds) C

14158 JUNELLIA JUNIPERINA Arg., Mendoza, Tunuyan, W of Tunuyan. 2700 m. Open areas in sandy soil. 8.2.94 (Erect, shrubby verbena (the latest account retains them in this genus) with heads of lilac flowers - a bit like a stiff, prickly lavender, about 1 m. high. Will be temperature hardy but need hot, dry conditions.)(15+ seeds) C

13687 KOHLERIA SP. Ecuador, Pichincha, Volcan Pululahua, N of Quito. 3000 m. Low, montane scrub on steep slope. 5.7.93 (Salvia-like, scarlet, herbaceous gesneriad, about 30 cm. high - Mediterranean conditions here.)(100+) D

13706 KOHLERIA SP. Ecuador, Pichincha, Rio Alambi valley, W of Calacali. 2000 m. Dense cloud-forest on very steep slope. 5.7.93 (Similar, herbaceous, salvia-like habit with downy leaves but more slender. Narrower scarlet tubes. 30-50 cm. Strictly for the frost-free cool-greenhouse from this altitude.) (100+ seeds) D

13626 LAMOUROUXIA VIRGATA Ecuador, Napo, Papallacta. 3100 m. Margins of montane scrub. 1.7.93 (A spectacular member of the Scrophulariaceae, widespread in Ecuador. A woody based, herbaceous perennial, about 60 cm. or more high, with racemes of large, magenta flowers, pink inside, rather like fat Penstemons.) (30+ seeds) C

14303 LATHYRUS MAGELLANICUS Arg., Rio Negro, Bariloche, Cerro Tronador, E side. 1200 m. Among igneous boulders on steep slopes. 21.2.94 (Suckering, herbaceous perennial, up to 60 cm. high, with violet flowers in racemes of 4-10. A variable plant (this seems var. magellanicus) extending S to Tierra de Fuego. Fully hardy!) (8 seeds) C

* LATHYRUS NERVOSUS Seed from Alan Edwards (Surrey, UK) of what is alleged to be the genuine "Lord Anson's Pea" - not the preceding - read all about 'The Mysteries of Lord Anson's Pea' in 10 pages of erudition and complexity in 'The Plantsman' of Dec., 1991. A much leafier, climbing perennial to about 1 m. with sky-blue to violet flowers, more of a coastal plant extending N to SE Brazil - if this is from the stock which Ken Aslet grew, it was obtained from Uruguay, perhaps explaining why it is not too easy in UK gardens.) (8 seeds) C

14168 LESQUERELLA MENDOCINA Arg., Mendoza, Tunuyan, Pass Argentino. 4000+ m. Exposed, stony slopes. 8.2.94 (Very dubious identification but this is supposed to be the only Lesquerella around here - but not at this very high elevation. Prostrate, ground-hugging stems of yellow flowers followed by inflated capsules.) (15+ seeds) C

14127 LEUCERIA CANDIDISSIMA Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Dryish, stony areas below late snow-patches. 4.2.94 (A very sweet little alpine member of this composite genus with catananche-like flowers, all S Andeans. One of the dwarfest with tight rosettes of grey-white felted, deeply pinnatisect leaves from which rise the rounded, pinkish-white heads on woolly stems of a few cm. Almost certainly for overwintering in an alpine-house but may be better outside in summer. Choice & promising.) (15+ seeds) E

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

12608 LIBERTIA FORMOSA Chile, X, Llanquihue, W of Ensenada. 200 m. At base of cliffs in stony soil. 1.3.91 (= L. chilensis. Iris-like clumps with rigid, 50 cm. stems densely clustered with white flowers.) (20+ seeds) B

* LOASA ACANTHIFOLIA No data. Large, dark green basal leaves covered with stinging hairs and stout stems carrying big cream and orange-brown flowers. Can be grown outside in a well-drained place in UK. (15+ seeds) B

14247 LOASA NANA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Among igneous rocks on exposed slopes. 17.2.94 (Maybe the finest, dwarf alpine in this genus. Mats of dissected, bluish grey--green leaves with large, starry flowers in lemon or orange-yellow with white centres.) (20+ seeds) D

14425 LOASA SIGMOIDEA Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3100 m. Open slopes - among igneous rocks in sandy soil. 8.3.9 (Orange & yellow flowers on flopping, prostrate stems of about 20 cm. Like the above & the next, this appears to be non-stinging but handle with care till you're sure.)(20+ seeds) D

14137 LOASA SP. Arg., Mendoza, Malargue, pass between Valle de las Lenas & Valle Hermoso. 2350 m. Among stones on exposed ridge. 4. .94 (A bit like a white-flowered version of the above with orange anthers.) (20+ seeds) D

14375 LOBELIA TUPA Chile, VI, Cachapoal, ESE of Machali. 900 m. Openings among scrub, in gravelly soil. 2.3.94 (Regal Chilean endemic with spires packed with hooded, scarlet flowers, towering to 2.5 m. Almost all early colls. were coastal, this is from the Andean foothills & may be hardier - sheltered, sunny site.) (50+ seeds) C

13655 LUPINUS SP. Ecuador, Pichincha, SW of Volcan Cayambe. 4000 m. Open grass paramo. 3.7.93 (Woody-based, about 30 cm. high, with stubby spires of blue flowers - quite 'normal' - not a wool-wrapped one.) (6 seeds) C

14408 MAIHUENIA POEPPIGII Chile, VIII, Nuble, W of Termas de Chillan. 1300 m. Open areas, in loose volcanic ash. 5.3.94 (A member of the Cactaceae, forming wide mats, 1 m. or more across but only a few cm. high, of branching stems with tiny, cylindrical leaves & white spines. Gorgeous large stemless flowers of soft lemon-yellow. Easy in the alpine-house but reputed to flower best outside in scree - it will survive very much lower temperatures, if protected from winter wet, than will ever occur in the UK.) (15+ seeds) C

14152 MAIHUENIA SP. Arg., Mendoza, Malargue, ESE of Los Molles. 2000 m. Open stony areas in valley bottom. 6.2.94 (Forms, big, tight, rounded hummocks, spinier than above. From the severe Patagonian steppe-climate.) (15+) C

14225 MAIHUENIA SP. Arg., Neuquen, Norquin, above pass E of Caviahue. 1780 m. Among igneous rocks on dry, stony slopes. 15.2.94 (Extremely compact, small hummocks covered with pure-white spines. Only 2 seen.) (6 seeds) E

14448 MALESHERBIA LINEARIFOLIA Chile, Reg. Metro., below Farellones. 2100 m. Open rocky slopes & ridgetop. 9.3.94 (The genus is in its own family, the Malesherbiaceae, vaguely akin to Passifloraceae, and is 'different' to anything familiar in cultivation. A woody-based, herbaceous perennial, about 60 cm. high, with stems & leaves covered in glandular hairs. Panicles of flowers, about 2 cm. across, somewhat delphinium-like in effect, in rich dusky blue-violets to red-violets, generously produced over a long period. It has been grown & flowered in the UK and rated "a beautiful plant" - temperature-hardy - try it in a well-drained sunny site.) (20+) D

14154 MALESHERBIA LIRANA Arg., Mendoza, Malargue, ESE of Los Molles. 2000 m. Steep, loose talus slopes on basalt sill. 6.2.94 (Much dwarfer, about 10 cm. high, with downy, greyish leaves on procumbent stems. Somewhat silene-like with masses of creamy-white, 'hose-in-hose' flowers. An eye-catching and floriferous plant which we hope may be possible as a year-round alpine-house plant in the UK or in a hot scree outside.) (15+ seeds) E

13855 MARGYRICARPUS SP. Ecuador, Chimborazo, S of Palmira. 3100 m. Open, dry, sandy 'flats'. 20.7.93 (Tight mats of prostrate stems with tiny, finely dissected leaves, covered with white, rice-like fruits.) (8 seeds) C

14433 MELOSPERMA ANDICOLA Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3200 m. Exposed, stony slopes & ridgetops. 8.3.94 (High alpine member of the Scrophulariaceae - prostrate, radiating stems with opposite, fleshy, blue-grey leaves, from the axils of which bell-shaped, lilac flowers, with darker veining & throats, appear successively. Should be possible in trough, scree or alpine-house pan, outside in summer.) (15+ seeds) D

13679 MICONIA SP. Ecuador, Pichincha, Volcan Pululahua. 3000 m. Dense, low, scrubby montane forest on steep slope. 5.7.93 (This large genus of the Melastomataceae, with about 1000 species throughout S America, produces a a few which ascend to high altitudes. This should be growable in the UK in an unheated greenhouse - a 1.5 m. shrub covered with many-flowered panicles of deep-pink flowers. Fine seeds will need care.) (100+ seeds) D

13981 MICONIA SP. Ecuador, Pichincha, above Tandapi (W of Aloag). 2600 m. In dense, montane scrub on steep slopes. 29.7.93 (Spectacular masses of pink flowers on 2-3 m. shrubs. Frost-free conditions.) (100+ seeds) D

MONTIOPSIS See comments under Calandrinia. This genus includes Calandrinia subg. Hirsutae (= Montiopsis subg. Montiopsis) and Calandrinia sect. Dianthoideae (= Montiopsis subg. Dianthoideae). All three species of the latter group are listed here, showy, dwarf, alpine members of the Portulacaceae for the alpine-house.

14138 MONTIOPSIS ANDICOLA Arg., Mendoza, Malargue, pass between Valle Hermoso & Valle de las Lenas. 2350 m. Among stones on exposed ridge. 4.2.94 (Woody-based with small, narrow leaves and decumbent, wiry, 5 cm. stems of large, sumptuous flowers in brilliant, violet-magenta silk - as luminous as neon lights.) (15+ seeds) D

12311 MONTIOPSIS CISTIFLORA Chile, Reg. Metro., above Rio Maipo valley, N of Banos Morales. 2500 m. Open, stony areas. 22.1.91 (Diffuse, woody stems with little, linear, glaucous leaves, rather like Penstemon pinifolius, send up wiry stems, to 10 cm., with 2-4 silky magenta flowers, over 3 cm. across. = C. splendens.)(15+ seeds) C

14133 MONTIOPSIS GAYANA Arg., Mendoza, Malargue, Valle de las Lenas. 2700 m. Open, stony areas. 4.2.94 (Caespitose with glabrous, greyish leaves. Up to 10 intense rose flowers on stems of 5-10 cm.) (20+ seeds) C

14360 MONTIOPSIS SERICEA Chile, Reg. Metro., Lagunillas (ENE of San Jose de Maipo). 2300 m. Open, stony slopes. 1.3.94 (The only member of the larger Subgenus Montiopsis here - and almost certainly the finest for the alpine-house grower. Tight hummocks of silvery grey, downy foliage produce a generous succession of brilliant magenta flowers on very short stems. For year-round alpine-house cultivation in full sun.) (30+ seeds) D

14330 MONTIOPSIS SP. Arg., Mendoza, Malargue, Valle de las Lenas. 2160 m. Exposed, level steppe in sandy clay. 25.2.94 (Very compact & short-stemmed here. In Subg. Dianthoideae and should fit under M. andicola or maybe M. cistiflora - possibly the taxon once described as Calandrinia dianthoides - but not in flower.)(20+ seeds) D

MUTISIA Our 1991 colls. of these beautiful climbing daisies mostly germinated well - a percentage usually come up quickly with further irregular germination in autumn & spring. No heat is needed. Take great care in transplanting and try them with the best possible drainage in acid to neutral soil with their heads in the sun and feet in the shade. Almost all the following will be temperature hardy in the UK but may resent wet--ness. Names here follow Cabrera's 1965 revision of the genus - almost all the hardiest species are listed.

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C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

14410 MUTISIA DECURRENS Chile, VIII, Nuble, W of Termas de Chillan. 1300 m. Openings in Nothofagus woodland. 5.3.94 (More than any other this deserves the title 'climbing gazania' - large flower-heads, up to 12 cm. across, like single dahlias with about 15 ray-florets in deep, glowing orange. A particularly fine form here where it often grows right in the middle of Chusquea thickets. Not easy in our experience but others have had great success, including one grower in British Columbia, Canada. Climbs to about 3 m.) (8 seeds) E

* 12572 MUTISIA OLIGODON Chile, VIII, Bio Bio, SE of Antuco to Volcan Antuco. 650 m. Among scrub on steep slopes of volcanic ash. (Our own seed home-grown from our 1991 coll. of one or two seeds sown direct among a group of Correa in our unheated greenhouse. The most successful here and a most beautiful plant - technically separat--ed from M. spinosa in that it is not a climber but forms wide-spreading, suckering mounds of stems, about 30 cm. high. Our plants are actually about 60 cm. high. The two are different - and in Argentina grow in the same area - but the differences are impossible to quantify botanically. Plants in cultivation under this name are most likely to be M. spinosa - many of Comber's colls. were misnamed. Bean mentions a plant (of the real thing) thriving for 40 years in a Sussex garden from Comber's seed - this does seem one of the best to try in the UK. Aristocratic daisies in what Bean describes as a "beautiful silky pink (almost salmon-pink)." There can be positively no argument about the identity of this coll. - it came from the locality where Poeppig collected the material he described as this in 1835 - "Andes de Antuco". Try it outside in scree.) (8 seeds) E

14283 MUTISIA OLIGODON Arg., Neuquen, Pass del Cordoba. 1070 m. Among steppe vegetation in loose, sandy soil. 19.2.94 (Seems to be the right thing - always very difficult to find a few seeds uneaten by insects)(8 seeds) F

14345 MUTISIA RETRORSA Arg., Mendoza, Malargue, ESE of Los Molles. 1830 m. Climbing among scrub in open steppe. 26.2.94 (Endemic to the Patagonian steppes from here S to Santa Cruz, a most distinct climber of about 2 m. in the same section as M. decurrens. Leathery leaves with deep, backward-pointing teeth and forked, apical tendrils. Large orange-yellow daisies. May be possible on a S wall with an overhang to keep it dry.)(8 seeds) E

14414 MUTISIA ROSEA Chile, VIII, Nuble, Rio Itate valley E of Quillon. 300 m. Among scrub on ridges of old river gravels & sands. 6.3.94 (Listed in 1991 as a rose-pink form of M. subulata, it is in effect just this, kept specifically separate by Cabrera, though maybe best as a subsp. or var. A plant of the low hills of central Chile N from here to Coquimbo. Has grown well with us under glass but not yet flowered here.) (10 seeds) D

14351 MUTISIA SINUATA Chile, Reg. Metro., Lagunillas (ENE of San Jose de Maipo). 2200 m. Steep, open, stony slopes. 1.3.94 (A little alpine species, not a climber but with prostrate stems, to about 15 cm., with tooth-ed grey leaves and cream daisies, sometimes tinged pink or apricot. Not easy here.) (8 seeds) E

14416 MUTISIA SINUATA Chile, Reg. Metro., La Parva. 2800 m. Steep, loose, stony slopes. 8.3.94 (8 seeds) E

14270 MUTISIA SPINOSA Arg., Neuquen, Lacar, E of Lago Lolog. 1100 m. Among scrub in gravelly soil. 18.2.94 (Can climb to about 6 m. with coarsely toothed, evergreen leaves & profuse, large pink flower-heads. Possibly the best to try outside in UK gardens. Norman Hadden used to have a fence in his Porlock (Somerset, UK) garden covered with what he called M. oligodon x M. retusa (a syn. of M. spinosa) but we suspect they were all M. spinosa with its very variable foliage. Still grown from the Comber 1925-27 collections.) (10 seeds) C

MUTISIA SUBSPINOSA Nothing to do with M. spinosa & in Sect. Guariruma with M. decurrens & M. retrorsa, this is endemic to the E Andean foothills from N Mendoza through San Juan into La Rioja provinces. We listed a very few seeds in 1991 as "M. ? retrorsa" (12536) and have made 3 colls. in 1994 in the hope that it might prove easier than recalcitrant M. decurrens. As far as we know, it has not been tried in cultivation. In appearance it might be crudely described as intermediate between the two others. Flower-heads are usually in rather softer, yellower orange shades than the fiery M. decurrens - still a brilliant climber. 2-3 m.

14155 MUTISIA SUBSPINOSA Arg., Mendoza, Tunuyan, W of Tunuyan. 2500 m. Among scrub on stone-slide. 8.2.94 (8) E

14175 MUTISIA SUBSPINOSA Arg., Mendoza, S of Termas de Villavicencio. 2000 m. Among scrub. 9.2.94 (8 seeds) E

14458 MUTISIA SUBSPINOSA Arg., Mendoza, Lujan, W of Portrellillos. 2000 m. Among scrub on gravels. 11.3.94 (8) E

14373 MUTISIA SUBULATA Chile, VI, Cachapoal, ESE of Machali. 1000 m. Among scrub on open slopes in gravelly soil. 2.3.94 (Like no other (except M. rosea) in its extraordinary foliage. Very fine, linear leaves clothe the zig-zag stems, which can climb to about 3 m. The incredible flowers are about 8 cm. across and of the most brilliant scarlet-red. Barely tried in cultivation, we have several accounts of it flowering now. It seems on the whole slow-growing and needing time to build up its thin, wiry stems, rather than difficult.)(8 seeds) D

NASSAUVIA This amazingly diverse genus of S Andean alpine composites takes on a great range of weird and wonderful forms. They have never been one of our great enthusiasms - perhaps because we have never been very good at finding much seed of them. Our companion, John Andrews, was more successful and these are mainly his colls. & determinations, based on the 'Flora Patagonica' account. Individualists for the alpine-house.

14327 NASSAUVIA ARGENTEA J. Andrews coll. : Arg., Neuquen, Cerro Atravesado W of Zapala. 1950 m. (Near N. revoluta with congested clumps of stiff leaves, silky-silver below. Dense, rounded white heads. 10 cm.) (10+ seeds) C

14266 NASSAUVIA LAGASCAE var. LANATA J. Andrews coll. : Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1920 m. 17.2.94 (White or lilac-tinged sessile heads. Sculptured leaves woolly below.) (10+ seeds) C

14221 NASSAUVIA PINNIGERA J. Andrews coll. : Arg., Neuquen, Norquin, Volcan Copahue. 2000 m. Among volcanic rocks on open stony slopes. 15.2.94 (Pinkish knobs on stiff stems of greyish imbricate leaves. 15 cm.) (10+ seeds) C

14295 NASSAUVIA PULCHERRIMA Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Loose talus on open slopes. 20.2.94 (Glossy, green, imbricate leaves. Globose white heads. 15 cm. Endemic to this area only.) (10+ seeds) C

14432 NASTANTHUS AGGLOMERATUS Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3200 m. Exposed stony slopes. 8.3.94 (Tops the preceding in the realm of 'way-out' high-alpines. A tight, stemless, creamy-green cauliflower-head sits on a dark leaf rosette, about 10 cm. across. For alpine-house enthusiasts with a sense of humour - in the family Calyceraceae but unfortunately no longer in the genus Boopis.) (20+ seeds) B

14144 NOTHOSCORDUM SP. Arg., Mendoza, Malargue, Valle de las Lenas. 2450 m. Open, stony slopes. 5.2.94 (A pretty, dwarf, alpine species, about 10-15 cm. high. Umbels of white flowers on wiry stems.) (15+ seeds) C

14446 OENOTHERA ACAULIS Chile, Reg. Metro., below Farellones. 2300 m. Steep, loose, stony slopes. 9.3.94 (Similar to the N American O. caespitosa, with which it has been confused. Big, white, stemless flowers on long tubes from tufts of deeply cut, greyish leaves. From a high locality, whence it should be very hardy.) (10+ seeds) C

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C :	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F :	$9.00	;	£6.00	;	DM15, -	;	FF50. -

* ONIRA UNGUICULATA Ex a J.A. Castillo coll. : Brasil, Rio Grande do Sul, Rosario dc Sul. In acid, red soil - full sun. (Seed from Stan Farwig & Vic Girard (Concord, Ca., USA) grown from the original collection made on 13.10.84 - "no doubt one of the most beautiful bulbs in the world", known from a few sites either side of the Brasil - Uruguay border, this has "tolerated cold winter temperatures well" with Stan & Vic and should need no more than frost-free conditions in the UK. A lot of the S American Iridaceae will fit in with those who grow their Mediterranean bulbs frost-free and open up a new world of bulbs. This monotypic genus, near Cypella, has been in Herbertia as well. Big tigridia-flowers, over 5 cm. across, with broad, rounded pale violet blades to the outer segments. Base & inner segments banded with yellow and mottled with violet and brown. All on a very short stem of only 8-15 cm. with slender, grassy leaves. A stunning thing.) (15+ seeds) D

13644 ONOSERIS HYSSOPIFOLIA Ecuador, Pichincha, above Oton. 2700 m. Open banks in sandy, stony clay. 3.7.93 (A most charming little daisy, more or less endemic to Ecuador. Woody, decumbent stems with linear leaves, dark above & woolly white below. Lilac-pink rays, apricot-buff on the reverse. About 20 cm. high.) (15+ seeds) C

13940 ONOSERIS SALICIFOLIA Ecuador, Chimborazo, S of Alausi. 2600 m. Loose, stony soil on steep, dry slopes. 23.7.93 (Altogether larger, about 50 cm., with showier heads with red-violet rays - both of these would be worth trying out in summer in a dry, sunny site in UK. This is endemic to S Ecuador.) (15+ seeds) C

OREOPOLUS GLACIALIS One of the finest alpine-plants of the southern Andes, occurring from the mountains behind Santiago down to Tierra del Fuego. Separated from Cruckshanksia by its lack of petaloid sepals and a different seed-capsule, its long-tubed flowers, typical of its family, Rubiaceae, are pale to deep yellow and beautifully scented. They rise straight from the tight cushions of fleshy, greyish rosettes. Grown successfully in a trough in Berwickshire by Alex Duguid from a Ruth Tweedie gathering well over 30 years ago, it is only just feeling its way back into cultivation again. Keep it outside in summer in full sun. Seed was set well in three localities we visited in 1994 so we have made separate colls. of excellent material.

14280 OREOPOLUS GLACIALIS Arg., Neuquen, Passo del Cordoba (S of San Martin). 1310 m. Exposed, bare, stony slope with little other vegetation. 19.2.94 (A glorious stand here but, like the others, not seen in flower.) (8) E

14293 OREOPOLUS GLACIALIS Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Open, talus slopes. 20.2.94 (8) E

14324 OREOPOLUS GLACIALIS Arg., Neuquen, Cerro Atravesado, W of Zapala. 2200 m. Exposed ridge. 23.2.94 (8 seeds) E

13743 ORTHROSANTHUS CHIMBORACENSIS Ecuador, Carchi, NW of El Carmelo (SSE of Tulcan). 3300 m. Grass & espeletia paramo, in wet, black, peaty soil. 8.7.93 (A member of the Iridaceae characteristic of the N Andean paramo. Libertia-like clumps of tough iris-leaves and erect, 60 cm. stems packed with rich-blue flowers. Henry Taylor tells us he grows this successfully outside in Perthshire, Scotland, so it's quite hardy.) (30+ seeds) B

14252 OURISIA ALPINA J. Andrews coll. : Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680m. Moist sides of gulleys. 17.2.94 (Tidy, dark rosettes of basal leaves with long-tubed, pink flowers carried daintily on short stems. A plant of damp, peaty patches to be tried in the peat-garden in UK.) (50+ seeds) E

14300 OURISIA FRAGRANS J. Andrews coll. : Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Rock fissures. 20.2.94 (Much more of a saxatile plant than the preceding, often in seemingly dryish crevices. Rosettes of sticky leaves with strongly scented white or pale-pink flowers - usually the latter colour here.) (50+ seeds) E

14388 OURISIA MICROPHYLLA Chile, Region VIII, Nuble, SSW of Termas de Chillan. 1600 m. Shaded, apparently dryish, crevices on igneous cliffs. 3.3.94 (One of the loveliest saxatile plants of the S Andes. Mounds of thready stems with tiny leaves and profuse, soft-pink primula-like flowers over a long period. Quite easy in the alpine-house in 'dionysia-conditions' - avoid overwatering or overfeeding or it can collapse.) (50+ seeds) D

* OURISIA MICROPHYLLA - WHITE FORM From two white flowered plants, originally selected at Goteborg Botanic Garden, Sweden, by Henrik Zetterlund from plants raised from a David Hale collection. (30+ seeds) F

14306 OURISIA POEPPIGII Arg., Rio Negro, Bariloche, Cerro Tronador E side. 1300 m. Fissures on shaded igneous cliffs. 21.2.94 (Much larger than any of the above with big basal leaves and many, hanging, brilliant scarlet tubular flowers on 20 cm. stems. Quite numerous here along streams & in the spray of waterfalls but most seed had dehisced before our visit. Should be easy outside in a peat-bed in the UK.) (30+ seeds) D

14257 OXALIS ADENOPHYLLA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1700 m. Talus on steep, open slopes. 17.2.94 (A magnificent alpine of established garden-value & growability - outstanding here in the variability of colour, from pale to intense rose-pink. Beautiful, cut, blue-grey leaves.) (15+) C

14192 OXALIS SP. Arg., Neuquen, Norquin, S of El Huecu. 1250 m. Open, eroded, sandy banks. 14.2.94 (Possibly O. compacta, a sweet, very floriferous little plant. Mounds of yellow flowers from reddish buds.) (15+ seeds) C

14435 OXALIS SP. Chile, Reg. Metro, SW of Valle Nevado (E of Farellones). 2900 m. Loose soil among igneous rocks. 8.3.94 (Bright and attractive with small, rather fleshy, blue-grey leaves and rosy-carmine flowers. Can be as tight & brilliant as Saxifraga oppositifolia in the wild but is usually about 5 cm. - a little more in cultivation, where a great range of names (O. geminata, etc., etc.) have been applied to it.) (15+ seeds) D

14179 OXYPETALUM SP. Arg., Mendoza, Valle de Uspallata N of Uspallata. 2100 m. Loose gravels in open areas. 9.2.94 ("Something completely different" - a wood-based perennial member of the Asclepiadaceae twining to about 30 cm. with thin, wiry stems and lots of little, complicatedly beautiful flowers, buff outside and crimson to rose inside. Will be hardy but not likely to tolerate much wetness in winter or summer.) (10+ seeds) C

14364 PACHYLAENA ATRIPLICIFOLIA Chile, Reg. Metro., Lagunillas (ENE of San Jose de Maipo). 2300 m. Exposed, stony area on steep, NW-facing slope. 1.3.94 (Fascinating & distinct, rhizomatous perennial composite with flat rosettes of big, smooth, bronze-tinted leaves with a white 'bloom', bearing in their centres a cluster of almost stemless heads - in this case in pastel-apricot shades. Endemic to these border-mountains.) (10 seeds) E

13730 PASSIFLORA MANICATA Ecuador, Carchi, NE of Mira (to El Angel). 2800 m. Along banks & in scrub. 7.7.93 (Most spectacular with upward-facing flowers in eye-burning scarlet. Dark, leathery, 3-lobed leaves. Often just trails down banks & slopes. This germinated well and there should be plenty plants to try outside in 1995 - we overwintered ours under glass but it hates being there in summer. From this altitude, in quite a cold area, worth trying on a wall in the UK. It likes well-drained, sunny sites in nature.) (10 seeds) C

14170 PEREZIA PILIFERA Arg., Mendoza, Tunuyan, Passo Argentino. 4000+ m. Exposed, stony slopes. 8.2.94 (Appears to be an extremely tight, high altitude form of this composite. Compacted mats of spiny, deeply pinnatisect leaves with stemless heads in deep lilac-purple. Always difficult to get more than a few seeds of these.) (5) E

13714 PITCAIRNEA SP. Ecuador, Imbabura, above Laguna Cuicocha. 3200 m. Among rocks. 7.7.93 ('Summer'-dormant Bromeliad with a spiny, bulbous base. Long scarlet flowers, like lipless salvias. 30 cm.) (20+ seeds) D

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13824 PITCAIRNEA SP. Ecuador, Tungurahua, Rio Pastaza valley NW of Banos. 2000 m. Wet rock fissures on cliffs. 16.7.93 (Not seen in flower - not likely to be hardy, like the preceding - frost-free only.) (20+ seeds) C

13929 POLYGALA SP. Ecuador, Canar, NW of Canar to Chunchi. 2400 m. Dense montane scrub on steep slopes. 23.7.93 (Shrubby, 2 m. high with royal-blue flowers. Only likely to be suitable for frost-free conditions.)(10 seeds) C

14371 PUYA CAERULEA Chile, VI, Cachapoal, ESE of Machali. 1000 m. Open slopes in gravelly soil. 2.3.95 (Rosettes of stiff, spiny leaves about 60 cm. long, produce red-stemmed inflorescences with dense panicles of tubular flowers in deep, rich blue. A spectacular member of the genus of cold-climate Bromeliaceae. 2 m.) (30+ seeds) C

14369 PUYA VENUSTA Chile, Reg. Metro., SE of San Jose de Maipo. 1000 m. Ledges on cliffs of igneous rock. 1.3.94 A 2-3 m. high candelabrum of rose-pink flowers. The usual big rosettes of narrow, spiny foliage.) (20+ seeds) D

13718 PUYA SP. Ecuador, Imbabura, above Laguna Cuicocha (W of Cotacachi). 3200 m. Among grass & low, montane scrub on steep sides of crater. 7.7.93 (Big, spine-edged, evergreen rosettes send up 2-3 m. spires with buds well wrapped in brown wool opening to tubular, waxy flowers in opalescent duck-egg blue-green.) (20+ seeds) D

14264 RANUNCULUS SEMIVERTICILLATUS Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1900 m. Loose, igneous talus on very steep, open slope. 17.2.94 (Dissected, blue-grey leaves, like Dicentra peregrina but even more finely cut, with large white, purple-backed flowers. The only S Andean Ranunculus for the alpine-connoisseur and one of the world's finest alpine-plants. It has been grown & flowered in the UK but the great challenge is to flower it well and in character - to achieve the perfection that it is.) (10 seeds) E

14294 RANUNCULUS SEMIVERTICILLATUS Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Loose talus. 20.2.94 (10) E

RHODOPHIALA & RHODOLIRION The southern "hippeastrums" constitute some of the most spectacular cold-climate bulbs. Those here are essentially winter-growers (or spring-growers in the case of high-altitude, snow-melt plants), needing a dry period in late summer to autumn. In practice, possibly only a very short 'rest' is needed and seedlings can be kept more or less growing throughout the year. The bulbs have strong, permanent roots penetrating deeply and they will progress more satisfactorily planted out in a bulb-frame than in pots. We are grateful to Prof. Dr. J. Grau (Institut für Systematische Botanik der Universität München), who is working on this genus for the 'Flora Chilensis', for indicating possible names and his provisional opinions on generic delineation. He suggests the high altitude plants with capitate stigmas may be better separated into another genus, Rhodolirion, but others, currently involved, retain these in Rhodophiala.

14333 RHODOLIRION MONTANUM Arg., Mendoza, Malargue, Valle de las Lenas. 2160 m. Among alpine-steppe vegetation. 25.2.94 (= Rhodophiala rhodolirion, if you do not wish to 'split' it - not Rhodophiala montana, which is yellow-flowered. A spectacular alpine, mainly Chilean but crossing the Andes into Argentina around here, where it varies from pale pinks to deep red, occasionally white, variously striated with purple. See our comments under Viola for temperature & climate records for this area. Alpine-house or bulb-frame.)(10+ seeds) C

14366 RHODOLIRION MONTANUM Chile, Reg. Metro., Lagunillas ENE of San Jose de Maipo. 2300 m. Steep, loose, stony, E-facing slope. 1.3.94 (The population here is reputedly all deep-pink to red, darkly streaked.) (10+ seeds) C

14422 RHODOLIRION MONTANUM Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3100 m. Among igneous rocks in loose, sandy soil on open slopes. 8.3.94 (The form here is to us unrivalled - in the species, among the few high-alpine bulbs and, indeed, among high-alpines. Here, big clumps of bulbs produce numerous 10 cm. stems, each with a huge, pure-white trumpet with a variable & intricate pattern of crimson spots or dashes running along the veins, back into the yellow-green throat. Foliage has already died back as the flowers appear. Though the habitat then appears dry, its deep, strong roots may still reach moisture.) (10+ seeds) C

14412 RHODOPHIALA ADVENA Chile, VIII, Bio Bio, S of Canteras (E of Los Angeles). 400 m. Open site in sandy soil. 6.3.94 (This seems to be one of the easiest to grow in the bulb-frame or cold greenhouse in the UK. Both red and yellow forms here - about 30 cm. high in fruit with up to 5 flowers on each stem.) (10+ seeds) C

14209 RHODOPHIALA ANDICOLA Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil, among igneous rocks. 15.2.94 (Rivals Rhodolirion in high altitude spectacle & will need similar treatment in cultivation. Mainly Argentinian, this has luminous violet-pink, dark-throated, upward-facing flowers on 15-20 cm. stems Our 1991 coll., 12419, listed as R. araucana (only recorded from Copahue) is likely to be this.) (10+ seeds) D

14244 RHODOPHIALA ANDICOLA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Superbly illustrated from this locality by Rolf Fiedler in the report of "Alpines '81" (app. p. 240). An incredibly sumptuous alpine-plant.) (10+ seeds) D

14277 RHODOPHIALA ARAUCANA Arg., Neuquen, Passo del Cordoba. 1220 m. Gravelly & sandy areas among steppe plants. 19.2.94 (We hope correctly named this time - at least unlike anything else listed. Maybe nearest R. elwesii but a more slender plant, up to 30 cm. high with 2-5 flowers per stem. These appear to open pale yellow and blush to red through tiny crimson dots suffusing over the segments. Uknown yet in cultivation.) (10+ seeds) E

14195 RHODOPHIALA ELWESII Arg., Neuquen, Norquin, SSW of El Huecu. 1260 m. Openings among scrub in andy soil. 14.2.94 (Almost certainly this handsome, yellow-flowered species but this may be far enough N for the allied R. mendocinensis, which lacks the purple-throat of the following. The name has been much misapplied to bulbs from Chile - maybe yellow R. advena. As far as we know, R. elwesii only grows in Argentina.) (10+ seeds) C

14269 RHODOPHIALA ELWESII Arg., Neuquen, Lacar, E of Lago Lolog. 1100 m. Open areas among grasses & scrub, in sandy soil. 18.2.94 (From near San Martin, where Elwes stayed in February, 1902, and presumably collected the type. An extremely beautiful plant with upward-facing, soft-yellow flowers with wine-coloured throats. Should be growable planted out in a bulb-frame in the UK - or even tried outside in a raised-bed.)(10+ seeds) C

14390 RHODOPHIALA SP. Chile, VIII, Nuble, SW of Termas de Chillan. 1700 m. In turf on broad, sloping cliff-ledge. 3.3.94 (Not seen in flower but possibly scarlet & certainly temperature-hardy from this area.) (10+ seeds) D

13800 SALVIA HIRTELLA Ecuador, Cotopaxi, Valle del Rio Mestizo, near Tigua. 3500 m. Clay banks. 14.7.93 (Woody-based, mat-forming perennial. Erect, 30-50 cm. stems whorled with brilliant scarlet flowers from purple--bronze calyces. Many thanks to James Compton (University of Reading, UK) for Salvia-identifications.) (10+) C

13930 SALVIA SPRUCEI Ecuador, Canar, NW of Canar to Chunchi. 2400 m. Dense montane scrub on steep, wet slopes. 23.7.93 (Woody-based perennial with erect stems of rose-pink to salmon-pink flowers, about 1.5 m. tall. This will need to be overwintered frost-free in the UK, like the Mexican species.) (10+ seeds) C

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C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

14110 SAXIFRAGA MAGELLANICA Arg., Mendoza, Lujan, Cordon del Plata, W of Portrellillos. 2800 m. Shaded fissures on igneous cliffs. 2.2.94 (Little, white mossy saxifrage more characteristic of northern ranges.) (50+ seeds) B

14115 SCHIZANTHUS GRAHAMII Arg., Mendoza, Malargue, Valle de las Lenas. 2200 m. Loose, stony soils on steep slopes & along gulleys. 4.2.94 (This & the next are two species of this small genus of the Solanaceae (which is all but confined to Chile), which have climbed to high elevations and acquired a perennial, even if short--lived, habit. Both have much-cut, glandular foliage & branching stems to about 50 cm. carrying successions of 'upside down', butterfly-like flowers. Amazingly improbable & spectacular alpines - because alpine-plants they certainly are! S. grahamii, a species of many aliases, including S. gilliesii, just infiltrates the border with Argentina here in its most violent colour-form - shocking-pink & luminous orange.) (30+ seeds) C

14346 SCHIZANTHUS GRAHAMII Chile, Reg. Metro., Lagunillas ENE of San Jose de Maipo. 2200 m. Loose, igneous talus on steep slope. 1.3.94 (More demure form with fringed lower lips in gentler pinks and yellows.) (30+ seeds) C

14427 SCHIZANTHUS HOOKERI Chile, Reg. Metro., NE of Valle Nevado (E of Farellones). 3100 m. Open slopes - among igneous rocks on sandy soil. 8.3.94 (Hardly less spectacular with lilac flowers with attentuated, flame--shaped upper lips in rich yellow grading into white, topped & tailed with lilac.) (30+ seeds) B

14242 SENECIO ARGYREUS Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (A neat, upright, 30 cm. high shrub with its narrow foliage & stems densely clothed in white felt. Rather fine, reputedly scented, soft-yellow daisies. Not difficult in sun.) C

13975 SENECIO FORMOSUS Ecuador, Imbabura, NW of Laguna Mojanda (S of Otavalo). 3750 m. Wet grass-paramo. 28.7.93 (Splendid species in cultivation in the UK from Venezuelan seed - so far it has been given winter protection in a cold-frame but this may be unecessary. It resents root-disturbance & drying-out. About 50 cm. high here with incised leaves & many, showy, nodding heads in intense violet-purple. Try in a peat-bed.) (20+ seeds) D

14148 SENECIO GILLIESII Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Open, stony areas. 5.2.94 (More or less an alpine version of S. candicans, which grows down at sea-level in Tierra del Fuego, and, at about half the size better suited to the alpine-house. Tufts of upright, coarsely toothed spatulate leaves, about 12 cm. high, clothed on both surfaces with dense, white tomentum. Flowers are discoid only.) D

13685 SIPHOCAMPYLUS GIGANTEUS Ecuador, Pichincha, Volcan Pululahua. 3000 m. Dense montane scrub. 5.7.94 (Giant lobelia with downy, lanceolate leaves & creamy yellow flowers. Shrub of 1-3 m. for frost-free conditions(50+) C

SISYRINCHIUM We have not seen any of the following in full flower so suggested names & possible garden--value of several definitely need confirmation. We do not collect the more obviously 'weedy-looking' species & all the following may have some potential but the one from Ecuador is a wholly unknown quantity. The vogue for 'splitting' these in some current horticultural publications is not followed by any modern, standard 'flora' we use, so, except for Solenomelus, these are kept together here for the present.

14212 SISYRINCHIUM ARENARIUM Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil, among rocks. 15.2.94 (About 30 cm. high with spikes of pale yellow flowers with purple centres.) (20+ seeds) B

14245 SISYRINCHIUM ARENARIUM Arg., Neuquen, Lacar, Cerro Chapelco. 1680 m. Among igneous rocks on exposed slopes. (Possibly in the same species-group, which includes S. cuspidatum, S. pearcei, etc. 20 cm.) (20+ seeds) B

14211 SISYRINCHIUM FILIFOLIUM subsp. JUNCEUM Arg., Neuquen, Norquin, between Caviahue & Copahue. 2160 m. Sandy soil among igneous rocks. 15.2.94 (Variable, pretty, summer-dormant species in the same section as N American S. douglasii. Up to 8 pendant bells in pink to white, often purple-veined, on stems to 20 cm.) (15+ seeds) B

14354 SISYRINCHIUM FILIFOLIUM subsp. JUNCEUM Chile, Reg. Metro., Lagunillas. 2200 m. Stony slopes. 1.3.94 (15+) B

13898 SISYRINCHIUM SP. Ecuador, Azuay, S of Cumbe. 3300 m. Exposed grass-paramo. 22.7.93 (20-30 cm.) (15+ seeds) C

14166 SISYRINCHIUM SP. Arg., Mendoza, Tunuyan, Passo Argentino. 4000+ m. Exposed stony slopes. 8.2.94 (Collected on an amazing mountain-road maintained by the Argentine army over a shoulder of Tupungato into Chile. This is a high-alpine compressed into a turfy pad - almost sessile capsules - if the flowers are as large as the fruits it will be a great plant but try it with an open mind. Maybe a reduced S. macrocarpum.) (15+ seeds) D

14368 SOLANUM LIGUSTRINUM Chile, Reg. Metro., Lagunillas ENE of San Jose de Maipo. 1800 m. Open places among scrub 1.3.94 (Violet potato-flowers followed by black fruits. Glossy, leathery leaves on 60 cm. sub-shrubs.) (10+) B

12502 SOLANUM PINNATUM Chile, IV, Choapa. N of Los Vilos. 30 m. Among scrub. 14.2.91 (Strong-growing, scandent shrub. Large heads of small purple & yellow flowers. Tiny crimson fruits. Possibly frost-tender.)(10+ fruits) B

14178 SOLANUM SP. Arg., Mendoza, Valle de Uspallata, N of Uspallata. 2100 m. Loose gravels in open areas. 9.2.94 (An elegant little plant - a woody-based perennial with underground stems rising to about 20 cm. with grey leaves and many, flat-faced, soft lavender-blue flowers followed by leathery, yellowish fruits.) (10+ seeds) B

14362 SOLARIA SP. Chile, Reg. Metro., Lagunillas ENE of San Jose de Maipo. 2300 m. Loose talus on steep slope. (Scilla-like in seed - flowers possibly green or purplish. A small genus in Liliaceae. 10 cm.) (10+ seeds) C

14377 SOLENOMELUS PEDUNCULATUS Chile, VI, Cachapoal, Rio Cachapoal valley W of Pangal. 950 m. Openings among scrub in sandy soil. 2.3.94 (A fine, summer-dormant, rhizomatous plant, growable in the alpine-house or bulb-frame. Tapered, grassy foliage & big, rounded rich-yellow flowers from prominent spathe-bracts. 20 cm.) (15+ seeds) C

12307 SOLENOMELUS SISYRINCHIUM Chile, Reg. Metro., above Banos Morales. 2500 m. Open stony slopes. 22.1.91 (Like Aphyllanthes with 20 cm. rush-like tufts. Less showy, fragile flowers of violet-blue. Neat, tidy & certainly temperature-hardy. These are the only two members of this genus, which has been in Sisyrinchium.) (20+ seeds) C

13720 SPHENOSTIGMA SP. Ecuador, Imbabura, above Laguna Cuicocha, W of Cotacachi. 3200 m. Among low, montane scrub. 7.7.94 (Tigridia-like capsules on 15 cm. stems. May end up in Calydorea or Nemastylis, etc. but almost certainly worth growing & near hardy in a frame or alpine-house in UK with luck.) (10+ seeds) D

14188 TARASA HUMILIS Arg., Neuquen, NNW of Chos Malal. 1720 m. Gravelly patches on stony slopes. 13.2.94 (Can be a superlative little mallow with lobed, greyish leaves and big, cup-shaped flowers in rosy carmine-pink with dark centres, on short stems. It has been grown in character and to perfection in cultivation, notably at Goteborg Botanic Garden, but it has also been seen in overfed, oversized condition with little, pallid flowers. We suspect it varies similarly in the wild. We saw this in superlative form in the Valle de las Lenas but could obtain no seed there. We have not seen it here in flower - a worthwhile lottery!) (10+ seeds) D

TIBOUCHINA Why do we see only T. urvilleana (= T. semidecandra) as the sole representative of this gorgeous genus of shrubs in the Melastomataceae in our gardens? It is Brazilian and almost hardy in the UK ; these will be no more tender. Seed is very fine & needs care but germinates and grows on well under glass.

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

13710 TIBOUCHINA GLEASONIANA Ecuador, Pichincha, Rio Alambi valley, W of Calacali to Nanegalito. 1750 m. Dense cloud forest on steep slopes. 5.7.93 (An absolutely stunning small tree with satiny flowers which open rich purplish rose but fade as they mature to pale lavender so all gradations of colour are present at once. Collected on a newly made road, where the local people were hacking off the cloud-forest to terrace the all but vertical slopes and grow a few wisps of maize. So beautiful is this that it was being reprieved by some to be replanted near their homes. Will need to be grown frost-free but will probably be happier in the UK if grown outside in a semi-shady situation in summer - cut-back & bring inside in winter?) (50+ seeds) E

13752 TIBOUCHINA GROSSA Ecuador, Carchi, NW of El Carmelo (SSE from Tulcan). 3100-3300 m. Steeply sloping rock face with sparse moss & fern cover. 8.7.93 (The one member of the genus which may prove hardy in UK gardens. We first saw this high up on the Nevado del Ruiz massif in Colombia in January, 1978, - it is really a plant of the Colombian Andes and this is the only place it just crosses the border into Ecuador. Slow-growing, stiff, lichen-covered shrubs, eventually about 2 m., with small, thick, silver-green velvet leaves and cup--shaped, thick-textured, waxy flowers in pure, dark scarlet - of a similar colour & texture to some rhodo--dendrons of subsect. Neriiflora. We could find but one or two capsules but it has germinated & is growing on here under glass, misted in our unheated greenhouse - for trial in due course in a peat-bed.) (50+ seeds) F

13922 TIBOUCHINA LAXA Ecuador, Azuay, Valle del Rio Leon, NNW of Ona. 2600 m. Montane scrub. 22.7.93 (Much more like the familiar T. urvilleana than the others - soft, 1.5 m. shrubs with downy leaves and big, violet--purple flowers. From down towards the Peruvian border, it will need frost-free winter conditions)(50+ seeds) C

14163 TRECHONAETES LACINIATA Arg., Mendoza, Tunuyan, W of Tunuyan. 2800 m. Open, stony area, among Berberis. 8.2.94 (Strange member of the Solanaceae, which grows up to 3400 m., with flat rosettes of coarsely cut fol--iage. Central clusters of almost stemless cups in green-tinted black, edged with white, followed by little orange 'tomatoes'. Will appeal to those who enjoy Mandragora and similiar curiosities. Scree?) (15+ seeds) C

14246 TRISTAGMA NIVALE Arg., Neuquen, Lacar, Cerro Chapelco. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Distinctively curled, fleshy leaves coil on the scree & a 15 cm. stem carries tubular flowers with narrow, reflexed lobes. Colour can vary from purple-black to green. We follow the 'Flora Patagonica' in keep--ing all these S American 'brodiaeas' together under Tristagma. Alpine-house or bulb-frame - all.)(10+ seeds) D

14125 TRISTAGMA PATAGONICUM Arg., Mendoza, Malargue, Valle de las Lenas. 2400 m. Stony areas below late snow-- patches. 4.2.94 (Beautiful, alpine, snow-melt bulb, 5-6 cm. high with one or two big, white flowers on each stem, striped brown on the reverse of each segment. This, or something like it, grows on Chapelco and there may be a few in 14246. Most here have curled leaves as in the dubious taxon, T. circinatum.) (10 seeds) E

14423 TRISTAGMA SP. Chile, Reg. Metro., NE of Valle Nevado. 3100 m. Open slopes, among rocks in loose, sandy soil. 8.3.94 (This & the next are a few cm. high ; they appear different. We cannot assure you they are both even in Alliaceae, far less in Tristagma, but they are both dwarf, alpine bulbs - worth trying.) (10+ seeds) D

14437 TRISTAGMA SP. Chile, Reg. Metro., above La Parva. 3000 m. Along snow-melt gulleys. 9.3.94 (10+ seeds) D

TROPAEOLUM This fascinating genus, with many tuberous-rooted perennial climbers & in its own family, the Tropaeolaceae, extends from Mexico right down S America. We could find no seed on the Ecuadorean species, all low altitude ones, and are always far too late to see the lower Chileans or collect seed. Most here are high altitude plants, trailers rather than climbers. Seeds are large and can be sown individually in small pots.

* TROPAEOLUM AZUREUM Ex Pern & Watson 6055 : Chile, Reg. Metro., Chacabuco, near Polpaico. 500 m. Hot, dry hillslopes, scrambling through low, scattered bushes. (Seed grown by Martyn Rix (Devon, UK) from this coll. made on 9.12.87 - plus some from Joy Hulme (Surrey, UK), almost certainly from the same coll. Beautiful & fragile little climber, a winter-grower best kept frost-free and dry in summer. Lovely, flat-faced flowers in soft violet-blues with white centres. Not too easy but seed is said to germinate easily.) (5 seeds) E

14272 TROPAEOLUM INCISUM Arg., Neuquen, Lacar, NE of Lago Lolog. 1000 m. Steep banks in gravelly or sandy clay. 18.2.94 (Generally similar in habit & appearance to T. polyphyllum but with more finely cut, frilled blue--grey foliage & more open flowers, here in orange & apricot shades with darker veins & red calyces. In theory should be easier to grow outside in the UK than the high-alpine T. polyphyllum but so far seems rather temperamental - maybe because plants are being imprisoned in pots - plant out in scree or a raised bed as soon as you dare. A severe late frost had damaged flowers here so we have very little good seed.) (5 seeds) E

14182 TROPAEOLUM POLYPHYLLUM Arg., Mendoza, Puente de Inca. 2720 m. Steep, loose clay slopes. 10.2.94 (We are grateful to David Haselgrove for bringing our attention to this interesting colony, which he had seen in flower - very variable in colour from the usual bright yellow to orange & red tints, maybe resulting from introgression by T. incisum. Trails of deeply cut, blue-grey leaves to 1 m. long. Growing up to around 3300 m. around Aconcagua, this high-alpine, often a coloniser of deep mobile screes, can be trouble-free & embarrassingly vigorous when settled in UK gardens. It is not so easy to propagate & establish.) (5 seeds) D

14356 TROPAEOLUM SESSILIFOLIUM Chile, Reg. Metro., Lagunillas. 2200 m. Steep, open, stony slopes. 1.3.94 (We have never been early enough to see this in flower but it is, by all accounts, the rock-garden species. Erect or flopping, 20 cm., branching stems with tiny leaves. White or pale lavender flowers, veined with grey & with orange centres. This has been grown well & flowered from our 1991 coll. (though not by us - yet!) (5+ seeds) D

* TROPAEOLUM SPECIOSUM A lower altitude climber from wet S Central Chile down into Chiloe, which loves cool moist British gardens. A glory of many gardens in Scotland, the West & Ireland, it ramps along the N side of our house in a peaty bed forming a curtain of dainty, cut, light-green foliage sheeted with scarlet flowers in late summer and autumn, when the steely blue fruits appear. Not so easy in hot, dry gardens.) (8 seeds) B

VIOLA We did not give as much attention to the fascinating S Andean, rosulate developments of this genus, as we might have, in 1991. We felt others had concentrated on their collection in recent years and that special--ist growers might have had enough to play with. Nevertheless there was a lot of interest in our 1991 seed. In 1994, the quality of seed on these plants was so good that we should have been foolish & irresponsible not to have taken the opportunity to make good collections when we could. In 1991, we also declined to name our collections ; this year, in a flamboyant grand finale, we have stuck names on the lot, claiming as our author -ity the 'Flora Patagonica' account (for what it is worth). Those in possession of John Watson's enthusiastic review of these plants (Bull. Alp. Gard. Soc. Vol.62, No.3, pp. 327-342) can revel in the complexities and come away with their heads reeling with names. Don't worry about 'fresh' seed ; they are just slow, irregular and unpredictable. Norm Deno tested some of our 1991 seed in 1994 - perfectly viable. Norm uses gibberelic acid successfully with these (details in his latest handbook) ; John Andrews, hydrogen peroxide (30% - 2 min.)

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

14342 VIOLA ATROPURPUREA Arg., Mendoza, Malargue, Valle de las Lenas. 2660 m. In talus above late snow-patch. 25.2.94 (Maybe the most beautiful of all rosettes - flat & round with leathery, overlapping leaves in glaucous grey-green tinged with purple. Tiny, glossy black violets with yellow centres ring the rosette, hiding below the uppermost tier of foliage. We recently saw this species (or something akin to it) very well-grown & in character at the RBG Edinburgh. If it becomes 'leggy', you can just chop it off.) (10 seeds) F

14108 VIOLA ATROPURPUREA Arg., Mendoza, Lujan, Cordon del Plata, above Vallecitos. 2800 m. Open, stony ridgetops & N-facing slopes. 2.2.94 (Not seen in flower here. Similar rosettes, often forming tight round hummocks and numerous on partly stabilised scree. Beautiful foliage but very little seed set here.) (10 seeds) F

14291 VIOLA COLUMNARIS Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Usually in loose talus on open, rocky slopes. 20.2.94 (Like the above, in the group with cartilaginous margins to the leathery-leaved rosettes. Maybe nearest to V. cotyledon but with smaller, white or pale lilac flowers with violet pencilling. Native to Argentina from Neuquen S to Chubut provinces but never a very numerous plant. The same as V. petraea.) (6) F

14208 VIOLA COTYLEDON Arg., Neuquen, Norquin, S of Copahue. 2160 m. Among volcanic debris on open, level, stony steppe. 15.2.94 (Limited to Neuquen prov. in Argentina and to the Chilean Andes, immediately opposite on the W side of the range, but extremely variable in flower colour & in the shapes of individual leaves. The general impression is of mounds of silver-saxifrage-like rosettes, each one ringed with ample, rounded violets, densely whiskered with white hairs in their yellow throats. The few late flowers seen here varied from soft lilac to quite a deep, pure-blue. Usually a plant of volcanic ash deposits, it seems to have been the first to be flowered in cultivation. One of the most spectacular with its large flowers.) (10 seeds) E

14311 VIOLA COTYLEDON Arg., Neuquen, Cerro Atravesado W of Zapala. 1890 m. Gravelly areas among grass tussocks on open slopes. 23.2.94 (Not seen in flower but possibly this though rosettes were much smaller.) (10 seeds) E

14400 VIOLA COTYLEDON Chile, VIII, Nuble, Nevados de Chillan. 2100 m. Loose, N & NE-facing ash slopes. 4.3.94 (Not seen in flower but said to be very variable here from soft blues & lavenders to deeper shades)(10 seeds) E

14243 VIOLA DASYPHYLLA Arg., Neuquen, Lacar, Cerro Chapelco above San Martin de los Andes. 1680 m. Among igneous rocks on exposed, stony slopes. 17.2.94 (Almost indistinguishable from the preceding in habit & foliage but with very different flowers ringing the rosettes - these are smaller, all but hairless and white or palest lilac with their lips blotched yellow and neatly streaked with violet-black. Grown & shown superlatively and in full flower from our 1991 coll. Known only from the higher mountains of Neuquen province.) (10 seeds) E

14276 VIOLA MACULATA Arg., Neuquen, Passo del Cordoba. 1220 m. Gravelly slopes among montane-steppe plants. 19.2.94 (Not a rosulate species but from somewhat drier more exposed habitats than most rosulates. Spreading by underground stolons & more or less summer-dormant. About 10 cm. high here with lanceolate, crenate foliage and bright yellow violets marked with dark-red towards the centres.) (15+ seeds) C

14322 VIOLA MACULATA Arg., Neuquen, Cerro Atravesado W of Zapala. 1900 m. Sandy slopes. 23.2.94 (10+ seeds) C

12605 VIOLA MAGELLANICA Chile, Cautin, S of Pucon. 1200 m. Among stones in sparse Nothofagus forest. 28.2.91 (A 'normal', stoloniferous, yellow-flowered violet from a much wetter area. About 8 cm. high.) (15+ seeds) B

14441 VIOLA PHILIPPII Chile, Reg. Metro., above La Parva. 3000 m. Open slopes, usually in loose, bare earth. 9.3.94 (Appears to be quite narrowly endemic to the mountains E of Santiago. Mounds of little, soft, brownish rosettes ringed with tiny sugared-almond-pink flowers from orange-tinted buds. Perennial but certainly not immortal, this has been successfully grown & flowered in cultivation in the UK. A few only.) (10 seeds) E

14282 VIOLA PSEUDOVULCANICA Arg., Neuquen, Passo del Cordoba. 1070 m. Loose, sandy clay. 19.2.94 (= V. congesta apparently but we stick with 'Flora Patagonica' names. Beautifully symmetrical, flat rosettes of soft, brown -tinted grey-green leaves with deeply crenate margins, from which peep out palest lilac or bluish white flowers streaked with dark purple. Another Neuquen endemic - a lot of these are very local.) (10 seeds) E

14329 VIOLA aff. PSEUDOVULCANICA Arg., Mendoza, Malargue, Valle de las Lenas. 2160 m. In sandy clay on exposed level steppe. 25.2.94 (Not seen in flower but rosettes are very similar - leaves less deeply crenate & more obviously fringed with white hairs. Should be V. vulcanica from so far N but seems eglandular.) (10 seeds) E

14292 VIOLA SACCULUS Arg., Rio Negro, Bariloche, Cerro Catedral. 1850 m. Loose talus on open, rocky slopes. 20.2.94 (A most distinct southern plant from the mountains of S Neuquen down to Santa Cruz, unlike either of the groups which the preceding rosulates seem to fall into. Singularly beautiful rosettes of thick, rounded leaves in dark, glossy green, neatly edged with red & encircled with plump, rounded violets with reflexing petals. By all accounts, usually pure-white & yellow-eyed here but can vary to lavender-blues.) (10 seeds) E

14132 VIOLA SP. Argentina, Mendoza, Malargue, Valle de las Lenas. 3000+ m. Bare patches on loose, clay slopes. 4.2.94 (Pads of up to 12 small rosettes, only 1-2 cm. across, sprouting up from a stout, taprooted, woody stock. Tiny white flowers with very hairy calyces look out from between the little, thick, reddish leaves (entire or shallowly crenate & edged with white hairs). But one of a multitude of mystery rosulates.) (10) F

* ZEPHYRANTHES MINIMA Ex a J.A. Castillo coll. : Argentina - no further data. (Seed from Stan Farwig & Vic Girard (Ca., USA). Bowl-shaped, pure-white flowers. From seasonally wet, swampy places. 15 cm.) (20+ seeds) B

'THE BACK-YARD' : SOUTH AMERICAN EXTENSION : CYPELLA HAUTHALII subsp. OPALINA

While rosulate violas and their high altitude Andean companions might be considered rarities to northern gardeners, their habitats have suffered little through the ever-expanding activities of human-beings. The occasional ski-resort or mountain-road often appears more destructive to habitat than it actually is. The same cannot be said for habitat-destruction through agriculture & urbanisation at lower altitudes. No-one has done more to rescue the lower altitude petaloid monocotyledons of Argentina than Alberto Castillo, a charming & knowledgeable amateur botanist, whom we had the pleasure of meeting very briefly as we passed through Buenos Aires. This is from one of his collections : ex a J.A. Castillo coll. : Argentina, Corrientes, N bank of Rio Uruguay opposite Garruchos (in Brasil) - growing in full sun in acid, red clay. This is hand-pollinated seed from Stan Farwig & Vic Girard of Concord, California. The taxon has very few stations and in this site it has now been wiped out by flooding and the collapse of the bank where it grew. Floods have been increasing & occurring in areas never affected before because of erosion following deforest -ation. This summer-dormant winter-grower, flowering in spring, should fit in with Mediterranean bulbs being grown frost-free. Over 2-3 months this produces a spectacular succession of large, tigridia-like flowers in opaline white, marked yellow inside, on short branching stems of about 15 cm. - enough to make you abandon crocuses!) (20+ seeds) E

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

SEEDS FROM JIM & JENNY ARCHIBALD, 'BRYN COLLEN', FFOSTRASOL, LLANDYSUL, DYFED, SA44 5SB, WALES, U.K.

SECTION I : SEEDS COLLECTED IN NORTH AMERICA

We shall be collecting in N America during June, July & August, 1995, and we shall concentrate on N American species in our next list. While it would have been convenient to ignore N American material altogether in this present list, our next list will not be issued until midwinter in the northern hemisphere. This is rather late for sowing some of 'bulbs' (on which we concentrated in our last, September, 1994, list). We are, therefore, listing an abstracted, concise version of the 'bulb' seeds we have available now. While we do not normally list collections without full data, this and other information is available by referring back to our September, 1995, list. If you do not have this and require details of the following, we can send photocopies of the relevant pages on request (we have no copies left now of the September list). Fresh collections of many will be listed with full details in our winter 1995-96 list but, as we have said, this will not be out until rather late for sowing some. J. And. c. = John Andrews coll.

REFERENCE NUMBERS are field numbers, which run in the order of collection. Packets of our collections will carry only these numbers and a check-list of the numbers in numerical order will be sent with the seeds for easy identification.

NOMENCLATURE for Californian species generally follows 'The Jepson Manual - Higher Plants of California' (1993).

CALOCHORTUS

13344	C. ALBUS (Adelaida Road) Pink to white.	(20+)	B
13363	C. ALBUS (Italian Bar) White.	(20+)	A
13340	C. ALBUS (York Mt.) Ruby-pink.	(20+)	C
12805	C. AMABILIS (Mix Canyon) Yellow.	(20+)	A
13368	C. AMABILIS (Butts Canyon) Yellow.	(20+)	B
13353	C. AMOENUS (Camp Wishon) Purple-rose.	(20+)	B
13599	C. AUREUS (Coconino Co., Arizona)	(20+)	D
	C. BRUNEAUNIS (Conway Summit) J.And. c.	(20+)	C
	C. CATALINAE (Triunfo Pass) J.And. c.	(20+)	C
	C. CLAVATUS (Cuesta Ridge) J.And. c.	(20+)	C
	C. CLAVATUS var. AVIUS (Pollock Pines)	(20+)	D
	C. CONCOLOR (Morris Ranch) J. And. c.	(15+)	C
13240	C. COXII (Boomer Hill) Dwarf pink.	(15+)	E
11548	C. EURYCARPUS (Sawtooth Valley)	(20+)	B
13535	C. EXCAVATUS (Gerkin) Lavender, white.	(20+)	E
13174	C. FLEXUOSUS (Daylight Pass) Lilac.	(20+)	D
13324	C. FLEXUOSUS (Lake Mead, Nevada)	(15+)	D
	C. GREENEI (Little Shasta Meadows)	(10)	E
11443	C. GUNNISONII (Glendo) Lilac, white.	(20+)	B
13248	C. HOWELLII (Eight Dollar Mt.)	(15)	D
	C. INVENUSTUS (Mt. Pinos) Lavender.	(20+)	B
13544	C. KENNEDYI (Deep Springs Valley)	(20+)	B
	C. KENNEDYI (Lockwood Valley) J.And. c.	(20+)	B
13177	C. KENNEDYI var. MUNZII (Wild Rose)	(20+)	D
	C. LEICHTLINII (Monumental Ridge) J.And.	(15+)	C
13026	C. LUTEUS (Clear Lake) Bright yellow.	(20+)	A
	C. MINIMUS (Monumental Ridge) J.And. c.	(15+)	C
13283	C. NUDUS (Plumas Co., Ca.) Dwarf lilac.	(15+)	C
	C. NUTTALLII (Price, Utah) J. And. c.	(20+)	B
	C. OBISPOENSIS (Reservoir Cnyn.) J. And.	(15+)	D
	C. OBISPOENSIS (Cuesta Ridge) J. And. c.	(15+)	E
	C. PALMERI (Bandido Camp) J. And. c.	(15+)	D
	C. PALMERI var. MUNZII (Idyllwild) J.And.	(15+)	E
	C. PLUMMERAE (Soledad Cnyn.) J. And. c.	(20+)	C
	C. SIMULANS (Reservoir Cnyn.) J.And. c.	(20+)	C
13103	C. SPLENDENS (Sulphur Spring Cnyn.)	(20+)	A
13021	C. SPLENDENS (Walker Ridge) Purple base.	(20+)	B
12757	C. STRIATUS (Lancaster) Lavender.	(20+)	C
13357	C. SUPERBUS (Hell Hollow) Mostly white.	(20+)	B
13198	C. SUPERBUS (Shoo Fly Rd.) Violet, rose.	(15+)	D
13455	C. TOLMIEI (Eight Dollar Mt.) Large fm.	(20+)	B
12998	C. TOLMIEI (Shingletown) Large fm.	(15+)	B
12974	C. UMPQUAENSIS (Callahan Creek) Cream.	(15+)	E
11665	C. UNIFLORUS (Coyote Valley) Cult. seed.	(15+)	B
13058	C. VENUSTUS (Italian Bar) Mainly white.	(20+)	A
13348	C. VENUSTUS (Adelaida Rd.) Pink, rose.	(15+)	C
11703	C. VENUSTUS (Mt. Pinos) Red blotch.	(15+)	C
	C. VENUSTUS (Cuddy Valley) Scarlet. J.And	(15+)	D
13228	C. VESTAE (Coyote Valley) White.	(20+)	A
	C. WEEDII (Banner Grade) J. And. c.	(15+)	C

ERYTHRONIUM

13462	E. CITRINUM (Josephine Co., Oregon)	(15+)	C
13387	E. CITRINUM var. RODERICKII (type loc.)	(10+)	E
12945	E. HENDERSONII (N of Medford, 450 m.)	(20+)	B
13466	E. HENDERSONII (SSE of Ashland, 1340 m.)	(20+)	C
13441	E. HOWELLII (Josephine Co., Oregon)	(15+)	C
	E. MULTISCAPOIDEUM (Paradise) F & G c.	(20+)	C
13525	E. MULTISCAPOIDEUM ("E. cliftonii")	(20+)	D
13494	E. OREGONUM subsp. LEUCANDRUM	(20+)	B
	E. PLURIFLORUM (Shuteye Pk.) J.And. c.	(15+)	E
	E. PURPURASCENS (Monumental Rdge.) J.And.	(15+)	D
	E. PUSATERII (Jordan Pk.) J.And. c.	(15+)	E
	E. TUOLUMNENSE (Italian Bar) J.And. c.	(15+)	B

FRITILLARIA

12806	F. AFFINIS (= F. lanceolata)(Mix Cnyn.)	(20+)	A
13452	F. AFFINIS (Illinois valley fm. - dwarf)	(15+)	C
12985	F. ATROPURPUREA (Warner Mts.) Mottled.	(15+)	C
13338	F. BIFLORA (San Simeon Bay) Brown-purple	(20+)	B
13274	F. EASTWOODIAE (= F. phaeanthera)	(20+)	C
13040	F. LILIACEA (Marin Co.) Creamy white.	(15+)	C
13062	F. MICRANTHA (Mariposa Co.) Brownish.	(20+)	B
	F. OJAIENSIS (Wheeler Springs) J.And.	(15+)	E
	F. PINETORUM (Mt. Pinos) J.And. c.	(15+)	E
13380	F. PLURIFLORA (Walker Ridge) Pure pink.	(15+)	C
	F. PLURIFLORA (Bear Valley) J.And. c.	(15+)	D
13395	F. PURDYI (Trinity Co.) Glossy, mottled.	(20+)	C
	F. STRIATA (Kern Co.) J. And. c.	(10)	E
	F. VIRIDEA (San Benito Co.) J. And. c.	(15+)	E

PLEASE NOTE THAT SPECIES IN THE ABOVE GENERA, INCLUDED IN OUR LAST LIST BUT NOT LISTED ABOVE, ARE NOT NOW AVAILABLE

1994 SEED OF NORTH AMERICAN SPECIES RECEIVED SINCE OUR LAST LIST & SOME CULTIVATED 1994 SEED

* AGASTACHE RUPESTRIS Ex a Sally Walker coll. from Arizona, this also grows in S New Mexico. Seed from Panayoti Kelaidis (Colorado, USA), who commends this as subtle rather than spectacular. Aromatic, silvery, somewhat lavender-like foliage and flower-heads in "a very unusual colour...unlike any other flower I've ever seen" - "a burnt brownish orange". "It blooms the first year from seed here (Denver), lasts for 3 months in bloom and is bone hardy." While unquestionably temperature-hardy in the UK, this will need a well-drained site in full sun but it still sounds as if it might be worth trying for the hardy plant enthusiast looking for new material. (30+ seeds) B

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

CALOCHORTUS PLUMMERAE (Triunfo Pass) J. Andrews coll., 1994 : Cal., Los Angeles Co., N of Malibu. 680 m. (Late 1994 coll. of this superlative, large late-flowerer in Subsect. Weediani. Huge pink bowls, densely golden -hairy inside, on branching 60 cm. stems. This is not a difficult species to grow with Boyd Kline in Oregon and Stan & Vic in Concord - it should be fairly easy in a bulb-frame or cold-greenhouse in the UK. We are told that its habitats around the Los Angeles area are becoming more limited so it should be cultivated widely.) (20+ seeds) C

* CALOCHORTUS VENUSTUS 'AURORA STRAIN' We hope Stan & Vic will forgive our tacky title but "derived from Stan Farwig & Vic Girard's best coloured selections" is cumbersome, though this is what the parents are. For many years Stan & Vic have travelled throughout California visiting calochortus colonies in flower - when they came across an outstanding coloured form of the immensely variable C. venustus it would be selected for cultivation. Self-sown seedlings appeared in their garden and were further selected. The creme de la creme of famously coloured colonies along Adelaida Road (Stan once referred to those here as like the aurora borealis, hence our collective name) and Lake Castaic and so on are all here. Expect reds, purples, pinks with a seeming infinity of blotches & basal markings. Stan writes : "The colored forms were tagged this year for collection, but venustus being the fickle beauty it is, no guarantees offered that there might not be an honkey in the woodpile once in a while. These grow more spectacular each year...especially the reds." Not for purists who need field data. Pure luxury! (20+ seeds) C

DASYNOTIS DAUBENMIREI H. Zetterlund 94-87 : Idaho, Idaho Co., Clearwater Nat. For., Walde Mt. Lookout. 1500 m. 12.6.94 (A member of the Boraginaceae, which Henrik describes as "a gorgeous plant, clump-forming with narrowly oblanceolate leaves. The flowers are large and the purest white." About 20 cm. high in flower, elongating to 30 cm. in seed. It is narrowly endemic to a few hill-tops N of the Lochsa River - maybe only adjacent Frenchman's Butte & here, where it grows on the top of Walde Mt. in a dry meadow surrounded by conifers, in local abundance.) (5 seeds) E

DUDLEYA PULVERULENTA subsp. ARIZONICA J. Andrews coll. : Cal., San Bernardino Co., Providence Mts., Bonanza King Mine. 1300 m. Limestone. (The reduced desert-mountain form of this stunning succulent, in Crassulaceae, with its rosettes covered in dense, white, chalky wax. Still quite large with rosettes from 15-30 cm. across and a branched flower stem with tubular red or yellow flowers of 15-50 cm. but more manageable in the alpine-house than the type--race which is about twice the size. Absolutely temperature-hardy if kept dry under glass in the UK.) (30+ seeds) C

FRITILLARIA AGRESTIS S. Farwig & V. Girard coll. : Cal., Alameda Co., SE corner of Livermore. (Up to 8 greenish cream and purplish brown bells on 30 cm. stems. A version of F. biflora from the adobe-clays of the Central Valley grasslands, where its habitat is now vastly depleted. The colony from which we collected seed in 1989 is now under concrete. While still quite widespread it is becoming increasingly localised and uncommon.) (20+ seeds) C

IRIS HARTWEGII (subsp. hartwegii) S. Farwig & V. Girard coll. : Cal., Fresno Co., Stump Springs Road, above Big Creek. 1500-1800 m. (The most widespread race of this species, occurring down the Sierra Nevada, usually in open areas in coniferous forest. About 30 cm. high with flowers in both pale yellow and lavender.) (15+ seeds) B

LEWISIA KELLOGGII J. Andrews coll. : Cal., Placer Co., Monumental Ridge. 2060 m. (We had insufficient seed to supply all who asked for this from the September list. John is sending a little more seed, which he had stored, so if you ask again promptly we can perhaps supply. There is not much so don't ask for this after May.) (15+ seeds) E

LILIUM PARRYI J. Andrews coll., 1993 : Cal., Los Angeles Co., San Gabriel Mts., along Little Rock Creek. 1990 m. (The most southern of the western lilies & most distinct - bright yellow, trumpet-shaped flowers, with a few, sparse, maroon dots, held horizontally or slightly nodding - up to 30 on stems of about 2 m. A local plant of wet meadows & streamsides in coniferous forest. This seems growable in the UK (mainly from Arizona colls.) (15+ seeds) D

LILIUM PARRYI A little British-grown seed (no data) from Alan Edwards (Surrey, UK). (10+ seeds) D

LILIUM PARVUM S. Farwig & V. Girard coll., 1993 : Cal., El Dorado Co., NE of Placerville, Ice House Road. 1500 m. (The burnt orange race of this high altitude lily of the northern Sierra Nevada. Nodding to ascending, rather trumpet-shaped flowers, up to 40 on stems of under 2 m. A wet-grower from streamsides & willow-thickets.)(15+ seeds) C

LILIUM PARVUM var. LUTEUM J. Andrews coll., 1994 : Cal., Placer Co., Monumental Ridge (Sierra Nevada W of Truckee). 2030 m. (John saw these on his way up to collect Lewisia seed and returned for seed last September - these seem quite an even, distinct local race here with more open, flat flowers in yellow to clear orange-yellow, fragrant and sometimes with a few crimson spots. A high-altitude, wet-grower possibly easier in the UK than some.)(15+ seeds) D

NAMA LOBBII J. Andrews coll. : Cal., Placer Co., Monumental Ridge. 1970 m. (There are some rather nice things in this neglected genus of the Hydrophyllaceae. This is a dwarf, rhizomatous, mat-forming perennial mainly distributed in the Cascades & Sierra Nevada up to 2200 m. Brilliant blue-purple borage-like flowers. The small specimen John sent, from a plant 15 cm. high by 50 cm. across does not actually key-out in the new Jepson at all.) (20+ seeds) C

PENSTEMON CALCAREUS J. Andrews coll. : Cal., San Bernardino Co., Providence Mts., Bonanza King Mine. 1400 m. NE-facing limestone screes. (An obscure member of Sect. Cristati recorded from this desert range and from the Grapevine Mts. above Death Valley, about 100 miles to the N. Though stated to grow in limestone fissures, John found this population growing in scree, rather like P. bracteatus in Utah. About 15 cm. high with entire or shallowly toothed leaves, ashy grey with hairs, and funnel-shaped flowers in brilliant pink to rose-purple with densely hairy, yellow staminodes. Possibly allied to P. monoensis, these two are unlike any others in their section in their colour and pubescence. This spectacular & highly desirable species might just be possible given all year alpine-house treatment in full sun. This will be the first & last chance to obtain seed from this population - John made the round trip of well over 1000 miles to collect this as next year this desert range will become a national park, which is carefully selected to suit the populations of Las Vegas & Los Angeles, being about half-way between the two (and appropriately rising above the Devil's Playground) so in future only trampling the species to death will be legally permitted - not collecting a few seeds with which to experiment with in cultivation. It's now or never.) (10+ seeds) E

SYNTHYRIS PLATYCARPA H. Zetterlund 94-84 : Idaho, Idaho Co., Nez Perce Nat. For., Selway River, Selway Falls. 600 m (Another local Idaho endemic sought out by Henrik in 1994. Only known from the Selway River area, this is very large for this small genus in Hydrophyllaceae - about 30-40 cm. in fruit - with semi-deciduous, soft, rounded, reniform leaves, about 10 cm. across, and dense racemes of small lavender flowers with incised petals. A woodlander, which it should be possible to maintain outside in the UK & other cool areas in a humus-rich, semishaded bed.) (15+ seeds) D

YUCCA WHIPPLEI subsp. CAESPITOSA Our 1992 coll. (as we have a few lines spare) : 13069 : Cal., Tulare Co., NE of of Springville. 20.6.92 (Perennial, northern race with 3 m. high, spire-like panicles of hundreds of cream bells, from beautiful rosettes of stiff, narrow, spine-tipped leaves. We have flowered it in the UK. Dry stored seed sown at 20°C (70°F) usually come up well, so sow it in summer ; sow it at low temperatures & it hardly germinates.) (20+) B

ZAUSCHNERIA CALIFORNICA S. Farwig & V. Girard coll., 1993 : Cal., Contra Costa Co., N slopes of Mt. Diablo. 250 m. (A gorgeous, late-flowering perennial - Epilobium canum, as in the new "Jepson", if you like (we don't). Subshrubby to about 30 cm. with narrow, greyish leaves & brilliant red-orange flowers. Hot, dry site.) (15+ seeds) B

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

SECTION II : SEEDS FROM EUROPEAN, WEST ASIAN & NORTH AFRICAN SPECIES

Our 1994 wild collections listed here were made with Norman Stevens in S Turkey during May & June. The bulbous plants and other low temperature germinators, which were included in our September, 1994, list, are offered again here, if there is still sufficient seed available. While 1995 cultivated seed may be available later this year in the case of several species, it will not be listed until our winter, 1995-96 list, rather late for sowing for winter germination. 1995 seed will be used for orders sent in September or October, if this is available. Seed collected prior to 1995 has been stored in refrigerated conditions of low humidity and, in our experience, is fully viable, even if quite old.

CULTIVATED MATERIAL is listed in this section only if it is derived from plants of known wild origin, accompanied by some field data. Even with first generation seed, a certain amount of selection has occurred (i.e. an ability to grow well and set seed under particular garden conditions) and there is a possibility of hybridization. With successive generations raised from seed in cultivation, field data and original field-numbers become more and more irrelevant.

REFERENCE NUMBERS in Section II are not our field numbers but permanent references for populations within the area of Europe, W Asia & N Africa. Receipt of a few collections from the Chinese Tien Shan, near the border with Kazakhstan, and the possibility of further Central Asian collections being made in future, has caused us to delineate the eastern limits of the area with which we should be concerned in this section. It will now include all the area covered by the 'Flora Iranica', including Afghanistan and part of West Pakistan, north through the Pamirs, the Tien Shan and the Altai. This is a distinct floristic area including the distribution of several important genera in their entirety. If seed is collected by us - or anyone else - from an identified species in a defined locality within this area, it is listed here under the same reference as previous collections from the same place. Seed packets will carry only this number but, as these six-digit numbers run in alphabetical, as well as numerical, order, identification of packets from this list is a simple matter. Section I five-digit field-numbers apply to particular collections only.

NOMENCLATURE in general follows the basic floras, 'Flora Europaea', 'Flora of Turkey' and 'Flora Iranica' with a degree editing and updating in line with more recent work, if this is felt to be relevant & helpful to gardeners.

* : indicates seed from cultivated plants of known wild origin. Field data applies to the original collection.

127.203 ALKANNA AUCHERIANA Turkey, Icel, NNE of Gulnar. 1200 m. Limestone fissures. 5.6.94 (The Turkish Eritrich--ium. Pads of silvery-grey rosettes and azure-blue forget-me-not flowers. In its finest, bluest form here in the Gulnar area. A classic alpine-house plant, difficult but by no means impossible to grow.) (10 seeds) E

128.320 ALKANNA SIEHEANA Turkey, Icel, NNE of Mut, above Zeyrek. 1400 m. Fissures on limestone cliffs. 5.6.94. (Another pulvinate, saxatile species, very close to A. aucheriana but with rather greener leaves and here with deeper, royal-blue flowers. Never attempted in cultivation - skilled alpine-house growing.) (10 seeds) F

* 131.000 ALLIUM CALLIDICTYON Ex a N. Stevens coll. : Turkey, Agri, near Tutak. 1596 m. (A 20 cm. high, pink form of this dainty, little species in the same group as A. cupanii. Alpine-house or frame in UK.) (15+ seeds) B

* 134.060 ALLIUM MYRIANTHUM Ex a N. Stevens coll. : Turkey, Denizli, Pamukkale. 400 m. (A type-locality coll. of this distinct, 80 cm. high plant with dense heads of tiny white flowers on purple pedicels.) (20+ seeds) A

134.801 ALLIUM ORIENTALE Turkey, Antalya, Irmasan gecidi. 1530 m. Among Abies on limestone. 4.6.94 (20+ seeds) A

153.200 ANCHUSA UNDULATA Turkey, Mugla, Gok tepe N of Mugla. 1500 m. Open stony area with sparse Pinus on lime--stone. 25.5.94 (Tidy, 30-50 cm. high, herbaceous plant - seems a good perennial here - with cymes of deep blue-violet flowers. Worth trying in a sunny, very well-drained site outside in the UK.) (10+ seeds) B

154.200 ANDROCYMBIUM RECHINGERI P. & P. Watt coll. : Greece, Crete, Hania, Falassarna. (A few left.) (15+ seeds) E

* 161.900 ANEMONE PAVONINA Greece, Lakonia, E of Areopoli. 100 m. Oak scrub. (Brilliant scarlet.) (20+ seeds) A

* 171.700 AQUILEGIA AUREA Ex an A. Edwards coll. : Bulgaria, Rila Mts., Malyovitsa valley. (The only yellow-flowered European columbine, a handsome, 30 cm. high Macedonian endemic seldom-seen in cultivation.) (15+ seeds) C

* 185.550 ARISTOLOCHIA LONGA subsp. PAUCINERVIS Morocco, Middle Atlas, SW of Ain el Leuh. 2000 m. Limestone. (10) B

* 194.752 ARUM ALPINUM Ex Christian & Hoog 806 : full data not available. (Dwarf, greenish spathes.) (10 seeds) B

195.155 ARUM DIOSCORIDIS (var. dioscoridis) D.B. Stephens coll. : Turkey, Izmir, Cesme, old cemetery. 30.6.94.(10) B

* 227.702 BELLEVALIA DUBIA Ex an A. Edwards coll. : Italy, Sicily, Castel Mola near Taormina. (Superb form.) (15+) C

* 227.770 BELLEVALIA FORNICULATA Turkey, Agri, W of Eleskirt. 2300 m. Wet hay meadow. (Turquoise-blue.) (15+ seeds) C

* 228.080 BELLEVALIA PYCNANTHA Turkey, Van, NNW of Baskale. 2800 m. Alpine turf. (Inky blue-black. Easy.)(15+ seeds) A

* 228.130 BELLEVALIA RIXII Turkey, Van, NNW of Baskale. 1800 m. Loose talus. (Difficult. Alpine-house. Few) (10) E

* 232.101 BIARUM CARRATRACENSE Ex Salmon & Fillan 235 : full data not available. (Striking SE Spanish endemic.) (8) D

* 240.000 BRIMEURA AMETHYSTINA France, Haute-Pyrenees, Vallee d'Ossoue. 1500 m. Limestone. (Dainty, blue. Easy.)(20) A

* 240.100 BRIMEURA FASTIGIATA France, Corsica, Pointe de Revellata. Wet-flush. (Tiny, lilac-pink pan-plant.) (15+) B

* 245.001 BUPLEURUM ANGULOSUM France, Hautes-Pyrenees, Vallee d'Ossoue. 1500 m. Steep, loose, limestone scree on S-facing slope. (A choice, choosy and very slow-growing herbaceous perennial with 30 cm. branching stems of rounded, astrantia-like heads in an exquisite, glaucous jade-green. A flower-arrangers delight, if only they could cut it by the armful. Not really difficult in sun or part-shade but needs patience.) (15+ seeds) B

* 257.400 CAMPANULA LACINIATA Ex a H. & I. Barton coll. : Greece, Karpathos, WSW of Arkassa, Cape Paleokastrou. Sea level. Limestone fissures. (Rosettes of slashed leaves eventually send up a stout stem clustered with huge shallow bowls in "cold crystalline lavender" with large white centres. Unique Karpathos endemic.) (30+) D

* 266.000 CAMPANULA WALDSTEINIANA Croatia, Velebit Planina, Mali Halan between Obrovac & Sveti Rok. 1100 m. Lime--stone fissures. (Tiny, beautiful, Velebit endemic with many, wide-open, blue flowers on branching, wiry stems. Alpine-house or trough in the UK. Colorado-grown seed of a species now protected by the artillery emplacements of the forces of Serbian Krajina dug-in on the Mali Halan pass.) (30+ seeds) C

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

307.300 CISTUS PARVIFLORUS D.B. Stephens coll. : Turkey, Izmir, Cesme. 30.6.94 (Fairly hardy, dwarfish pink.)(30+) A

311.501 COLCHICUM BALANSAE Turkey, Icel, NE of Gulnar. 1200 m. Red clay. 5.6.94 (Robust. Autumn flowers.) (15+) C

312.800 COLCHICUM CILICIUM Turkey, Icel, Nur Da. above Hasanbeyli. 1100 m. Oak scrub. 7.6.94 (Autumn, pink.) (15+) A

315.601 COLCHICUM MACROPHYLLUM Turkey, Mugla, Baba Da. SE of Fethiye. 1200 m. Cedrus forest. 16.6.94 (10+ seeds) C

317.801 COLCHICUM SPECIOSUM 1994 J. Drake coll. : Turkey, Artvin, Alti Parmak above Yusufeli. (Autumn, pink.)(15+) B

318.101 COLCHICUM TRIGYNUM (Merendera trigyna) Turkey, Mugla, Gok tepe. 1500 m. Limestone. 28.5.94 (10+ seeds) B

318.204 COLCHICUM TRIPHYLLUM Turkey, Konya, Sultan Da. SW of Aksehir. 1750 m. Limestone 14.6.94 (10+ seeds) C

340.600 CROCUS BAYTOPIORUM Turkey, Denizli, Honaz Da. SE of Denizli. 1700 m. Limestone. 29.5.94 (10 seeds) C

341.250 CROCUS BIFLORUS subsp. ISAURICUS Turkey, Antalya, Irmasan gecidi. 1500 m. Limestone. 4.6.94 (10 seeds) B

* 341.352 CROCUS BIFLORUS subsp. MELANTHERUS Ex a M. Harvey coll. : Greece, Arkadia, S of Tripoli. (Peloponnese endemic, always white but variably marked outside and with striking purple-black anthers. Autumn.) (10) C

344.090 CROCUS GARGARICUS (subsp. gargaricus) Turkey, Mugla, Gok tepe. 1500 m. Heavy clay. 28.5.94 (15+ seeds) D

* 345.200 CROCUS GOULIMYI Greece, Messinia, between Kalamata & Areopoli. 300 m. Among oaks. (Lavender, autumn.)(15+) A

* 346.500 CROCUS KOSANINII Jugoslavia, Serbia (Kosovo), NNW of Kacanik. 300 m. Oak woods. (Violet, spring.) (10) C

346.900 CROCUS KOTSCHYANUS subsp. CAPPADOCICUS Turkey, Kayseri, Ziyaret tepe. c. 2000 m. Alpine turf. 13.6.94 (15) C

347.101 CROCUS KOTSCHYANUS subsp. CAPPADOCICUS Turkey, Rize, Ovit Da. 3000 m. Stony ridges. 26.7.88 (15+ seeds) C

348.602 CROCUS NEVADENSIS Spain, Granada, Sierra Nevada below Penones de San Francisco. 2300 m. Turf. (Few) (10+) C

* 352.552 CROCUS SIEBERI subsp. SUBLIMIS Greece, Viotia, Parnassos. 1500 m. Abies woods on limestone. (15+ seeds) B

* 354.002 CROCUS VELUCHENSIS Jugoslavia, Serbia (Kosovo), S of Urosevacs. 800 m. Fagus woods. (Large form) (15+) B

* 358.000 CYCLAMEN AFRICANUM Algeria, Kabylie, E of Azazga. 850 m. Oak woods. (Frost-free. Autumn, pink.)(10+ seeds) C

* 358.500 CYCLAMEN BALEARICUM Ex a D.M. Hoskins coll. : Spain, Mallorca, N of Andratx. 350 m. Among oaks. (15+) B

* 359.003 CYCLAMEN CILICIUM Turkey, Konya, NW of Bozkir. 1100 m. Shade at base of limestone cliffs. (15+ seeds) A

* 363.007 CYCLAMEN GRAECUM Ex a D.B. Stephens coll. : Greece, Argolida, Epidavros. (Tender. Autumn, pink.) (15+) B

* 364.003 CYCLAMEN HEDERIFOLIUM Ex a D.M. Hoskins coll. : Greece, Evia, W of Karistos. 200 m. (Large leaves.) (15+) A

* 366.503 CYCLAMEN PERSICUM Ex a P. & P. Watt coll. : Greece, Rhodes. (Selected for outstanding foliage.) (15+) C

* 368.003 CYCLAMEN REPANDUM subsp. PELOPONNESIACUM Greece, Lakonia, Oros Taigetos above Paleopanagia. 1400 m. Humus under Platanus, Abies & Pinus. (High altitude collection of the pale-pink, crimson-nosed Peloponnese race. Foliage is not invariably speckled all over. Tolerates frost under glass in UK - not good outside.) (15+) D

* 369.000 CYCLAMEN ROHLFSIANUM Libya, Cyrenaica, above Tukrah. 200 m. Pistacia scrub. (Frost-free.) (10+ seeds) C

369.501 CYCLAMEN TROCHOPTERANTHUM Turkey, Mugla, Baba Da. above Fethiye. 850-1100 m. Pinus & Cedrus woods. (10+) D

385.401 DAPHNE SERICEA Turkey, Icel, E of Gulnar. 900 m. Open, limestone slopes with sparse scrub. 5.6.94 (Deep rose-pink flowered evergreen shrub, about 1 m. high here. Must have full sun and good drainage.) (10 seeds) C

* 408.300 DIGITALIS LAMARCKII Turkey, Gumushane, Vauk Da. at Guvercinlik. 1800 m. Open stony slopes. (Outstanding perennial foxglove with 50 cm. stems of soft-brown, baggy flowers with huge, prominent white lips from clumps of narrow, dark-green leaves. N Turkish endemic for a well-drained site in full sun.) (50+ seeds) B

* 409.402 DIGITALIS OBSCURA Spain, Soria, Puerto del Pinar. 1100 m. Open limestone slopes. (Shrubby perennial with narrow, shiny foliage and amber foxgloves, yellow marked with rust-red inside. This population was only 20 - 30 cm. high in the wild but is taller in cultivation. A most distinct plant in a dry, sunny place.) (50+) B

444.100 EREMURUS SPECTABILIS Turkey, Kahramanmaras, SSE of Goksun. 1550 m. NE-facing slope with diverse, montane--steppe vegetation. 12.6.94 (Tuberous-rooted perennial with 2 m. cylindrical racemes of white flowers, striped green or purple and with exserted, orange-brown anthers. Intriguing rather than 'spectacular'.)(10) C

* 461.500 ERYNGIUM MARITIMUM UK, Devon, Exmouth. Sea-level. Among grass on stable sand-dunes. (Spiny basal leaves, bracts and stems all of the same matt bluish-grey, only a little paler than the blue flower-heads. Usually less than 30 cm., slow-growing and not easy but possible in a raised gravel-bed or scree in sun)(10+ seeds) B

477.504 EUPHORBIA DENTICULATA Turkey, Kahramanmaras, SSE of Goksun. 1550 m. NE-facing limestone slope. 12.6.94 (Member of the Myrsiniteae Subsection with decumbent stems clad in blue-grey leaves and heads of yellow--green with striking dark crimson glands surrounding the tiny flowers. For a dry, sunny place.) (10+ seeds) D

479.001 EUPHORBIA MACROSTEGIA Turkey, Icel, NE of Gulnar. 1200 m. Crevices on large limestone boulders. 5.6.94 (An odd saxatile plant which we have only seen growing in limestone fissures in the Gulnar area but which has proved a good garden plant with Jack Elliott (Kent, UK) from our 1985 coll. It is illustrated in Phillips & Rix 'Perennials' Vol. 2 as E. kotschyana but bears as little resemblance to the taller narrower leaved, widespread E. kotschyana as it does to the robust, purple-tinged, SW Iranian forms of E. macro--stegia. It needs a distinguishing name. About 30 cm. high with highly polished foliage.) (10 seeds) D

490.001 FRITILLARIA ACMOPETALA Turkey, Antalya, between Antalya & Altinyaka. 900 m. Heavy, red clay. 2.6.94 (15+) B

* 490.800 FRITILLARIA ALFREDAE subsp. GLAUCOVIRIDIS Turkey, Adana, above Hasanbeyli. 1100 m. Open areas. (15+ seeds) C

* 492.101 FRITILLARIA BITHYNICA Ex a D.M. Hoskins coll. : Greece, Samos, Ambelos. 450 m. Leaf-soil. (10+ seeds) C

492.401 FRITILLARIA CARICA Turkey, Mugla, Gok tepe. 1500 m. Open, stony area on limestone. 28.5.94 (10+ seeds) C

* 493.000 FRITILLARIA CONICA Greece, Messinia, S of Pilos. 200 m. Edge of oak scrub on limestone. (10+ seeds) D

* 493.503 FRITILLARIA CRASSIFOLIA subsp. KURDICA Ex BSBE 1434 : Iran, Kurdestan, Sir Kuh S of Rezaiyeh. 1980 m.(10+) C

494.000 FRITILLARIA DAVISII D.M. Hoskins 93-14 : Greece, Lakonia, NW of Pirgos Dirou. 200 m. 21.5.93 (15+ seeds) C

* 494.800 FRITILLARIA EHRHARTII Greece, Evia, W of Karistos. 200 m. In light shade on mica-schist. (15+ seeds) C

* 496.501 FRITILLARIA GUSSICHIAE Macedonia, Pelister above Magarevo. 1400 m. Steep, igneous slopes. (10+ seeds) D

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

* 499.700 FRITILLARIA MESSANENSIS subsp. GRACILIS Bosnia & Hercegovina, W of Trebinje. 500 m. Oak scrub. (20+ seeds) A

* 500.300 FRITILLARIA MONTANA Macedonia, Galicica Planina above Trpjeca. 1600 m. Exposed limestone. (15+ seeds) B

* 500.303 FRITILLARIA MONTANA Ex P.J. Christian 282 : France, Alpes-Maritimes, NW of Gourdon. 1000 m. (15+ seeds) B

501.801 FRITILLARIA PINARDII Turkey, Denizli, Honaz Da. 1650 m. Clay over limestone. 29.5.94 (10+ seeds) C

* 502.400 FRITILLARIA RADDEANA Ex a P. Furse coll. : Iran, Gorgan, Gulestan. c. 2000 m. (10+ seeds) C

* 503.602 FRITILLARIA THESSALA Ex Christian & Hoog 880 : Greece, Ioanina, Smolikas. 1500 m. Limestone. (20+ seeds) B

* 503.700 FRITILLARIA THESSALA subsp. IONICA Ex an E. Sewell coll. : Greece, Kerkira, Pantokrator. (20+ seeds) C

503.800 FRITILLARIA TUBIFORMIS France, Hautes-Alpes, Pic de Gleize NNW of Gap. 1800 m. SE slopes. 20.9.91 (20+) C

504.700 FRITILLARIA WHITTALLII Turkey, Antalya, N of Kas to Elmali. 1600 m. Limestone talus. 1.6.94 (10+ seeds) E

507.300 GAGEA FIBROSA Turkey, Hatay, E of Belen. 1250 m. Limestone. 8.6.94 (Large, bright yellow stars.) (20+) B

* 509.300 GALANTHUS REGINAE-OLGAE Greece, Messinia, Oros Taigetos, Langadas Pass. 1200 m. Deep humus under Platanus. (1995 hand-pollinated seed from the type-race of this lovely autumn-flowering snowdrop.) (10+ seeds) C

* 531.802 GLADIOLUS ANATOLICUS Turkey, Adana, Nur Da. above Hasanbeyli. 1100 m. Oak scrub. (Purple-pink.)(20+ seeds) B

* 531.902 GLADIOLUS ANTAKIENSIS Turkey, Hakkari, Zap gorge at Bagisli. 1500 m. Oak scrub. (Pink) (20+ seeds) B

532.503 GLADIOLUS ITALICUS M. Jope coll., 1993 : Greece, Kefalonia, near Sami. (Easily grown. Purple-pink.) (20+) A

* 532.601 GLADIOLUS KOTSCHYANUS Turkey, Van, NNW of Baskale. 3000 m. Alpine-meadow. (Dainty, pale-lilac.)(20+ seeds) B

* 532.602 GLADIOLUS KOTSCHYANUS Turkey, Erzurum, Kop Da. 2400 m. Wet-flush, among Salix. (Purple-red.) (20+ seeds) B

551.000 HANNONIA HESPERIDIUM J.W. Blanchard 93-04 : Morocco, S of Chichaoua. Dry river-banks. (15+ seeds) D

HELLEBORUS We shall not be in the UK at a suitable time to offer and despatch fresh 1995 Hellebore seeds, which are best sown by early autumn. For southern hemisphere growers, we may list a few in our winter 1995 - 96 list but this will be far too late for northern hemisphere customers. We may be able to list some again in a late summer or autumn list in 1996. In the meantime, if you want only Hellebore seeds, contact Will McLewin, Phedar Nursery, Bunkers Hill, Romiley, Stockport, Cheshire, England, SK6 3DS. He should be able to send wild-collected seed of many species at the correct time for sowing in 1995.

563.000 HELLEBORUS VESICARIUS Turkey, Adana, Nur Da. above Hasanbeyli. 1150 m. Among deciduous Quercus on shaley slope. 7.6.94 (Germinates irregularly whether fresh or stored - a cucumber-like seedling appears which usually goes dormant without producing true-leaves. These little, first-year, dormant roots can be lost through overdrying and this is the most critical period. An extraordinary relic, unlike any other in its huge, inflated seed-capsules, up to 15 cm. long. Summer-dormant and suited to the bulb-frame.) (8 seeds) E

* 571.000 HYACINTHELLA ATCHLEYI Greece, Evia, mainland hills opposite Halkida. 200 m. Limestone. (15+ seeds) C

* 572.300 HYACINTHOIDES REVERCHONII Spain, Jaen, Sierra de Cazorla. 1400 m. Clay pockets on limestone. (15+ seeds) B

572.600 HYACINTHUS ORIENTALIS subsp. CHIONOPHILUS Turkey, Sivas, Ziyaret tepe. 2100 m. Limestone. (15+ seeds) C

* 590.200 IRIS KERNERIANA Ex Horton & Stevens 2508 : Turkey, Gumushane, S of Kelkit to Erzincan. (An elegant little iris, one of the loveliest of Series Spuriae. About 30 cm. high with slender, soft-yellow flowers, it is usually a good garden-plant in a dry sunny site - survives but does not thrive here in wet Wales.) (10+) C

590.650 IRIS LOCZYI T. Dickerson 94-05 : China, Xinjiang, Tien Shan, Bogda Shan, Sangong He valley. 2180 m. (Dwarfest, largest flowered member of the I. tenuifolia group forms rhizomatous tussocks with almost stem-less flowers held up on long corolla-tubes. Mainly purple-blue with intricately veined falls.) (5 seeds) E

* 596.802 IRIS SCHACHTII Ex a N. Stephens coll. : Turkey, Malatya, WNW of Darende. 1500 m. (From both the dull purple and pale yellow forms of this fine, dwarf bearded iris. Bulb-frame best in UK.) (10 seeds) C

* 599.001 IRIS STENOPHYLLA subsp. ALLISONII Ex J. Persson 87-12 : Turkey, Antalya, near Gundogmus. 1000 m. (6 seeds) F

601.400 IRIS XIPHIUM Spain, Jaen, Sierra de Cazorla. 850 m. Wet slope among rushes. 13.9.91 (15+ seeds) B

* 632.001 LILIUM ALBANICUM Ex an F. Baxter coll. : Greece, Ioanina, Katara. 1700 m. (Beautiful bright-yellow race of L. carniolicum from NW Greece, Albania & Macedonia. Growable in acid or peaty soil in UK.) (10+ seeds) D

* 632.600 LILIUM CANDIDUM Greece, Lakonia, foothills of Oros Taigetos W of Sparti. 500 m. Steep, limestone slopes. (Hand-pollinated seed of this stunning, pure-white lily will provide fertile, virus-free stock.)(15+ seeds) C

* 633.202 LILIUM CHALCEDONICUM Greece, Viotia, Oros Elikonas above Evangelistria. 1500 m. Margin of Quercus & Abies woodland. (Stunning, scarlet lily about 1 m. high with up to 15 flowers. Good drainage & sun.) (15+ seeds) C

* 633.950 LILIUM LEDEBOURII Ex an A. Ala coll. : Iran, Gilan, Talish. 1700-1900 m. Degraded Fagus forest. (Only known from one locality in Iran. Up to 15 flowers, banded with yellow-green and speckled lightly with purple and with deep orange anthers. From the original Ann Ala coll. maintained by Tom Norman.) (15+ seeds) E

687.950 MUSCARI ANATOLICUM Turkey, Konya, Sultan Da. SW of Aksehir. 1750 m. Exposed ridgetop in thin soil over limestone. 14.6.94 (Not included in our last list as we could not identify it, this appears to be this very recently described species. A tiny alpine like M. discolor but appears easier to flower. China-blue buds and black-blue flowers with wide white, wide-open rims. Determination to be confirmed in time.) (20+ seeds) C

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

* 688.101 MUSCARI AUCHERI Ex N. Stevens 2541 : Turkey, Bolu, near Abant golu. 1000 m. (Blue & white bicolour.) (20+) A

688.500 MUSCARI BOURGAEI Turkey, Denizli, Honaz Da. 1700 m. Exposed ridge. (Dwarf. Glaucous leaves.) (15+ seeds) C

* 688.600 MUSCARI CAUCASICUM Turkey, Kars, SSW of Sarikamis. 1800 m. Igneous slopes. (Handsome Leopoldia.) (15+) A

* 689.450 MUSCARI GRANDIFOLIUM Morocco, Middle Atlas, above Ifrane. 1700 m. Limestone. (China-blue, blue-black)(20+) B

* 689.901 MUSCARI LONGIPES Turkey, Sivas, WSW of Hafik. 1300 m. Calcareous hills. (Violet tassels.) (10+ seeds) B

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B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

690.201 MUSCARI MUSCARIMI Turkey, Burdur, W of Yesilova. 1280 m. Loose serpentine talus. 30.5.94 (10+ seeds) C

* 690.700 MUSCARI PSEUDOMUSCARI Ex BSBE 842 : Iran, Mazanderan, S of Chalus. 1520 m. Limestone ledges. (15+ seeds) B

* 691.201 MUSCARI TENUIFLORUM Turkey, Karaman, SSE of Karaman. 1100 m. Open steppe. (Tall Leopoldia.) (15+ seeds) A

693.701 NARCISSUS ALPESTRIS J.W. Blanchard 94-08 : Spain, Aragon, above Cerler SE of Benasque. 1500 m. (10+ seeds) E

* 695.400 NARCISSUS BULBOCODIUM var. GRAELLSII Ex J.W. Blanchard colls. : Spain, Sierra de Guadarrama. (15+ seeds) C

* 696.200 NARCISSUS BULBOCODIUM subsp. NIVALIS (sensu Maire) Morocco, High Atlas, Tizi-n-Tichka. 2000 m. (15+ seeds) B

* 696.250 NARCISSUS BULBOCODIUM var. NIVALIS (of various accounts) Spain, Avila, Sierra de Gredos. 1800 m. (15+ seeds) C

699.850 NARCISSUS CAVANILLESII J.W. Blanchard 93-02 : Morocco, N of Ounara ENE of Essaouira (Mogador). (15+ seeds) D

* 701.002 NARCISSUS FERNANDESII Ex M. Salmon 449 : Portugal, Samora Correira. (10+ seeds) B

* 702.450 NARCISSUS NEVADENSIS Spain, Granada, Sierra Nevada. 2200 m. Wet-flush on W-facing slope. (10+ seeds) C

702.500 NARCISSUS OBVALLARIS UK, Wales, Dyfed, below Ffostrasol. 150 m. Banks & woods. (20+ seeds) A

* 705.200 NARCISSUS ROMIEUXII subsp. ROMIEUXII var. RIFANUS Ex J.W. Blanchard 89-28 : Morocco, Rif Mts. (15+ seeds) B

706.303 NARCISSUS SEROTINUS J.W. Blanchard 93-09 : Morocco, Zaian Mts., Pont Martin. 900 m. (Autumn-flowering)(15) C

720.502 ONOSMA ALBO-ROSEUM Turkey, Icel, S of Gozne. 750 m. Fissures on limestone cliffs & boulders. 7.6.94 (One of the finest of the genus, forming large hummocks of bristly, grey rosettes with cymes of nodding, tubular flowers in opalescent white, maturing to pink then bluish violet. Surprisingly easy outside in the UK, where it can prove a superlative dry-stone wall plant, on its side in full sun.) (8 seeds) B

723.170 ONOSMA RUTILUM Turkey, Icel, SW of Silifke. 100 m. Limestone crevices on open slope. 6.6.94 (Erect, woody -based perennial to 30 cm. high. Bristly rosettes and pendant yellow tubes maturing to red shades)(8 seeds) B

* 738.100 ORNITHOGALUM ARCUATUM Turkey, Van, W of Yukari Narlica. 2200 m. Stony alluvium in river-bed. (20+ seeds) B

738.850 ORNITHOGALUM OLIGOPHYLLUM Turkey, Denizli, Honaz Da., SE of Denizli. 1600 m. Scrub. 29.5.94 (15+ seeds) B

746.150 PAEONIA CAUCASICA coll. Georgia (This & P. steveniana are wild colls. by a botanist from the Academy of Sciences, Tblisi, Georgia. It is always difficult to persuade such sources that a reasonably precise provenance for this seed is of some significance and we also have the problem that the names in use in the republics of the former USSR are based on a concept of 'splitting'. Often no generic treatment dealing with these taxa exists or, if it does (as with Cyclamen), conclusions may well have been reached without access to a sufficient range of material. We consider it best to retain these under the names supplied - this would appear to be the Caucasian race of the widespread, rose-pink flowered P. mascula.) (6 seeds) C

747.701 PAEONIA PEREGRINA coll. Macedonia (The beautiful, scarlet-flowered species of SE Europe with glossy, bright-green, cut foliage, collected by a Croatian botanist. A good garden-plant in the UK.) (8 seeds) C

747.850 PAEONIA STEVENIANA coll. Georgia (An obscure plant, possibly the same as P. wittmanniana nudicarpa.) (6) F

* 709.502 PANCRATIUM ILLYRICUM Ex an A. Edwards coll. : France, Corsica, Venaco SSE of Corte. 500 m. (8 seeds) C

* 751.202 PAPAVER BRACTEATUM Turkey, Hakkari, W of Semdinli. 1600 m. Steep, stony slopes along gulley. (Big, silky scarlet Oriental Poppies with glossy black centres from perennial clumps. Easy border-plant.) (50+ seeds) A

* 752.100 PAPAVER LATERITIUM Turkey, Rize, above Ikizdere to Ovit Dag. 2000 m. Stony meadows & rocks near stream. (Extremely local in the wild but very easy in the garden. Tangerine-orange flowers. 50 cm.) (50+ seeds) B

* 752.300 PAPAVER PAUCIFOLIATUM Ex an E. Pasche coll. (AHEP 83-65) : Turkey, Kars. (More slender version of P. orientale with unblotched, brick-red flowers, from Transcaucasia, just entering NE Turkey.) (50+ seeds) B

* 758.001 PELARGONIUM ENDLICHERIANUM Turkey, Erzincan, E of Refahiye. 1500 m. Igneous scree on steep slopes. (From a selected pale-pink form of this hardy, xerophytic relic species. Bulb-frame conditions.) (5 seeds) D

780.301 POLYGALA PAPILIONACEA Turkey, Karaman, SE of Karaman. 1100 m. Open steppe. 5.6.94 (Woody-based with erect 15 cm. stems clad in narrow leaves, carrying sugar-pink flowers. A most infrequent plant of which it is never possible to obtain more than a pinch of seed - possibly very difficult to cultivate.) (8 seeds) E

785.002 PRIMULA ALGIDA T. Dickerson 94-52 : China, Xinjiang, Borohoro Shan, Kutun valley, Bayangol. 2600 m. (A dainty little species, usually less than 15 cm. high and lilac-pink flowered, widespread in moist, alpine sites from E Turkey through to Afghanistan and up into C Asia. Possible in trough in UK.)(20+ seeds) C

789.000 PRIMULA NIVALIS T. Dickerson 94-55 : Kazakhstan, Tien Shan, Alma-atinka valley S of Alma Ata. 2615 m. (A rare chance to obtain material of one of these exquisitely aristocratic primulas, which spend their winters dry beneath deep snow and their summers with their feet in chilled melt-water. "A superb and stalwart splendour of a foot high, with tiers of noble purple flowers" writes Reginald Farrer.) (20+ seeds) E

800.600 PULSATILLA CAMPANELLA T. Dickerson 94-34 : China, Xinjiang, Tien Shan, Urumqi valley. 2470 m. (10+ seeds) C

SALVIA Earlier in the 1980's we collected seed from a wide range of Turkish Salvias. As might be expected, several, like S. kronenburgii and S. albimaculata, seem to have failed to establish. Species of the dwarf, shrubby, pinnate-leaved group, like S. rosifolia and S. potentillifolia, are being grown but seem unwilling to set satisfactory seed in quantity. A few, like S. recognita and the tall form of S. sclarea, have proved good garden-plants not only in areas like SE Australia & the American West but, surprisingly, in the UK. Panayoti Kelaidis of Denver Botanic Garden has taken a particular interest in these plants, growing many of them most successfully, and most of the following seed has been sent by him. No matter where you attempt to grow them, these all want sun and good drainage - in an area like the UK they can't have enough.

* 843.500 SALVIA CANDIDISSIMA subsp. OCCIDENTALIS Turkey, Adana, below Gezbeli gecidi. 1800 m. Loose shale slopes. (Airy, branching stems of white flowers from flat, felted rosettes. 60 cm.) (15+ seeds) B

* 844.000 SALVIA CRYPTANTHA Turkey, Nigde, E of Ulukisla. 1500 m. S & W-facing limestone slopes. (Low, grey-leaved mats send up erect, 30 cm. stems whorled with pink or white flowers surrounded by bell-shaped calyces)(15+) C

* 844.201 SALVIA CYANESCENS Turkey, Bolu, W of Goynuk. 800 m. Loose, exposed, shale slopes. (Flat, felted rosettes and diffuse, branching stems, 30-40 cm. high, of lovely pale-violet flowers.) (20+ seeds) B

* 844.700 SALVIA FRIGIDA Turkey, Sivas, Camlibel gecidi. 1600 m. Open slopes among grasses & Juniperus. (Quite dwarf with 30 cm. high wide pyramids of many small white to pale lilac flowers.) (20+ seeds) B

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C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

* 845.201 SALVIA HYPARGEIA Turkey, Adana, N of Saimbeyli. 1200 m. Open rocky areas. (Neat clumps of narrow, greyish, woolly-backed leaves & 50 cm. stems whorled with lilac-blue flowers. Excellent.) (20+ seeds) B

* 845.800 SALVIA LAVANDULIFOLIA Spain, Granada, Sierra Nevada SE of Granada. 1500 m. Open limestone slopes. (Low, aromatic, greyish-leaved shrubs, about 60 cm. high, with stems of lilac-blue flowers.) (20+ seeds) B

* 846.100 SALVIA MICROSTEGIA Turkey, Adana, NNE of Saimbeyli. 1200 m. Open limestone slopes with sparse Juniperus. (Wide, single-stemmed, 1 m. high panicles of many small white flowers, with lips fading yellow.)(20+ seeds) B

* 846.800 SALVIA PISIDICA Turkey, Antalya, between Elmali & Korkuteli. 1000 m. Exposed, stony, SW-facing limestone slopes. (Shrubby perennial, about 40 cm. high, with brilliant violet-blue flowers.) (10+ seeds) D

* 847.051 SALVIA RECOGNITA Turkey, Nevsehir, W of Urgup. 1200 m. Base of cliffs in light shade. (Very distinct with pinnate leaves & large, widely spaced, rose-pink flowers on elegant, branched stems, about 1 m. high. A success in climates with warmer, drier summers but quite growable in the UK & in commerce there)(15+ seeds) C

* 847.400 SALVIA SCLAREA Turkey, Adana, below Hasanbeyli. 800 m. In scrub at margins of fields. (A particularly spectacular form. Stout stems over 1.5 m. high carrying lilac and white flowers against huge, flat, bright pink bracts. Our 'Super Clary' has performed well with gardeners from Scotland to Colorado.) (20+ seeds) B

* 873.650 SCILLA HOHENACKERI Ex P. Furse 1064 : Iran, Mazanderan, S of Chalus. (Paul Furse's 'Caspian Bluebell')(10) B

* 873.800 SCILLA HYACINTHOIDES Ex a N. Stevens coll. : Turkey, Siirt, NW of Siirt. 1000 m. (To 2 m. high)(15+ seeds) B

* 874.400 SCILLA LILIO-HYACINTHUS France Hautes-Pyrenees, N of Col du Pourtalet. 1500 m. Woodland. (15+ seeds) A

* 874.800 SCILLA LITARDIERI Bosnia & Hercegovina, above Dubrovnik to Trebinje. 500 m. Limestone. (15+ seeds) A

875.000 SCILLA MELAINA Turkey, Hatay, E of Belen. 1300 m. Fissures on limestone cliffs. 8.6.94 (10+ seeds) C

* 875.200 SCILLA MESSENIACA Greece, Messinia, S of Kardamili. 30 m. Limestone in shade. (Pale-blue.) (15+ seeds) B

* 876.501 SCILLA PERSICA Ex a N. Stevens coll. : Turkey, Hakkari, Beyaz Da. c. 2000 m. Wet places. (15+ seeds) B

* 876.800 SCILLA PERUVIANA Ex an A. Edwards coll. : Spain, Cadiz, near Grazalema. (Violet-blue. 50 cm.) (10+ seeds) A

* 878.000 SCILLA VERNA Spain, Avila, Sierra de Gredos. 1700 m. Moist turf on open slopes. (Dwarf, lilac.)(15+ seeds) A

* 906.000 SENECIO LEUCOPHYLLUS France, Pyrenees-Orientales, Puigmal above Las Planes. 2300 m. Slate & gneiss scree & detritus. (Exquisitely lobed, frilled foliage & stems clothed in pure-white velvet. A noted & difficult endemic of the E Pyrenees which always attracts show-judges when it appears in foliage classes.)(15+ seeds) D

* 917.100 SILENE ELISABETHA Italy, Lombardia, Monte Tremalzo. 1900 m. Stony, N & W-facing limestone slopes. (Another aristocrat in a largely weedy genus. "Enormous ragged flowers in flaming magenta-rose" on stems of "downy claret-coloured velvet" wrote Farrer. Of very limited range in nature & a challenge to grow.) (15+ seeds) D

933.000 STERNBERGIA CANDIDA Turkey, Mugla, Baba Da., SE of Fethiye. 1100 m. Limestone crevices, ledges & talus on steep slopes with sparse Cedrus. 27.5.94 (Robust with large white scented flowers in spring.) (10 seeds) E

* 933.601 STERNBERGIA SICULA Greece, Magnissia, Oros Pilio above Portaria. 1300 m. Stony openings among scrub. (Hand-pollinated 1995 seed. Brilliant yellow goblets as the dark, narrow leaves appear in autumn.)(8 seeds) C

969.252 TULIPA ARMENA var. LYCICA Turkey, Antalya, above Yarpuz N of Akseki. 1400 m. Limestone slopes. (15+ seeds) B

969.253 TULIPA ARMENA var. LYCICA Turkey, Kahramanmaras, SSE of Goksun. 1550 m. NE-facing limestone. (15+ seeds) B

969.400 TULIPA BIFLORA Turkey, Van, NNW of Baskale. 2700 m. Gneiss scree. (Fine, single-flowered form.)(20+ seeds) B

969.600 TULIPA CRETICA P. & P. Watt coll. : Greece, Crete, Hania, Akrotiri. 100 m. Terra rossa. (20+ seeds) C

969.900 TULIPA HETEROPHYLLA T. Dickerson 94-58 : Kazakhstan, Tien Shan, Alma-atinka valley S of Alma Ata. 2690 m. (The Tien Shan representative of an odd group of C Asian species with long-beaked capsules & (in this case) most un-tulip-like seeds. It was originally described in a separate genus, Orythia, and has also been put in the delightfully named genus Eduardoregelia. Well illustrated (in this area) in Rix & Phillips 'The Bulb Book' p. 117. Very dwarf with yellow flowers with dark exteriors. Keep dryish but not baked.) (10+ seeds) E

971.701 TULIPA SYLVESTRIS Turkey, Antalya, N of Kas. 1600 m. Ledges on outcropping limestone cliffs. 1.6.94 (Listed in our last, September, list under 970.600 T. orphanidea - please alter the name & number. An odd tulip which we seem to have no choice but to place under T. sylvestris, though it is very dwarf, early--flowering and highly fertile. Bright yellow flowers with grey-green backs & yellow anthers.) (15+ seeds) B

* 980.200 VERBASCUM ARCTURUS Ex an A. Edwards coll. : Greece, Crete, Rethimno, gorge near Selia. Limestone fissures. (Cretan endemic with downy, greyish basal leaves. Bright yellow flowers with violet filaments. 30 cm.)(50+) B

* 982.551 VERBASCUM SPODIOTRICHUM Ex a P. & P. Watt coll. : Turkey, Antalya, W of Kemer. 200 m. Limestone cliffs. (Local, SW Turkish cousin of V. arcturus. Many small, bright-yellow, violet-eyed flowers. 30 cm.) (50+) C

* 982.950 VERBASCUM WIEDEMANNIANUM Turkey, Gumushane, WNW of Bayburt. 1600 m. Fallow-field. (Unique, rich violet--purple, fragrant, 1-2 m. high species, known from a few sites in N Turkey. Has been a success with growers from Wales to New Mexico but sometimes fails to germinate & is altogether unpredictable!) (50+) B

While our main aim is to offer you seeds collected by ourselves, a vast amount of help from our friends in Britain and abroad is always much in evidence in our lists. We acknowledge other collectors in Sections I & II but space does not allow us to name all sources in Section III. We are grateful to : John Andrews, Stan Farwig & Vic Girard (all California USA) ; Jim Almond (Shropshire, UK), Dinah Batterham (Dorset, UK), Helen Beaufort-Murphy (Peru), John Blanchard (Dorset), Simon Bond (Glos., UK), Peter Chappell (Hants., UK), Paul Christian (Clwyd, UK), Phil Cornish (Glos., UK), Kath Dryden (Herts., UK), Alan Edwards (Surrey, UK), Don Elick (Japan), Jack Elliott (Kent, UK), Marcus Harvey (Tasmania), Bert Hopwood (Devon, UK), Dave Hoskins (Hants., UK), Richard Hancock (Hereford, UK), Tony Dickerson (Worcs., UK), Ruth Lord (NZ), Panayoti Kelaidis (Colorado, USA), Jimmy Persson & Henrik Zetterlund (Sweden), Ivan Rankin (NZ), Martyn Rix (Devon, UK), Christoph Ruby (Germany), Tom Norman (Dorset, UK), David Stephens (Surrey, UK), Norman Stevens (Cambridge), Geoff Taylor (Dyfed, UK), Mike Tucker (Somerset, UK), Peter & Penny Watt (Hants., UK), Michael Wickenden (Kirkcudbright).

Our apologies to anyone omitted. Sincere thanks to all & to all our customers for continuing to support our work.

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C :	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F :	$9.00	;	£6.00	;	DM15, -	;	FF50. -

FERNS

We have pulled all the ferns out from each section and list them all together here - they are not actually seeds anyway! While we do not go out of our way to collect ferns, we always grab a few fruiting fronds of anything we come across and these have been appreciated by a small but increasing number of customers. The spores of most appear to store just as well as seed in the refrigerator so some older collections are included along with some cultivated material, which you can at least be sure cannot have hybridised before it reaches you. We are very ignorant indeed about ferns but are grateful for the assistance of Clive Brotherton - though Clive has not seen specimens of all listed here. We assume those who may request these will know what to do with them. If not, we suggest you join a fern society or read a good book on propagating them - then start with something likely to be easier than these. No quantities are mentioned but you can assume that there will be a few hundred spores sent.

13237 ADIANTUM ALEUTICUM Oregon, Douglas Co., NW of Glide. 320 m. On & at base of shaded cliffs. 6.7.92 (Elegant moist grower well suited to the British climate - now 'split' from the eastern version, A. pedatum. 50 cm.) B

12809 ADIANTUM JORDANII California, Solano Co., Mix Canyon. 300 m. Shaded rocks & steep banks in woodland. 1.6.92 (Summer-dormant Pacific Coast endemic. Possibly best in a pan in a shaded alpine-house.) B

13695 ADIANTUM POIRETTII Ecuador, Pichincha, Volcan Pululahua. 3000 m. Steep, volcanic cliffs, usually in shade. 5.7.93 (Rather a Mediterranean climate here - 'summer' dormant but see the next in cultivation. 30 cm.) C

* ADIANTUM POIRETTII Ex a H. Beaufort-Murphy coll. : Peru, Cajamarca. (This has been a great success planted in our unheated greenhouse, revelling in summer-misting. Clive Brotherton has this outside in W Midlands.) C

14197 ADIANTUM SP. Argentina, Neuquen, Norquin, NE of Caviahue. 1520 m. Moist, shaded cliff with constant seepage. 14.2.94 (Neat, little maidenhair forming a curtain of fronds - will be utterly hardy in UK - very cold here. C

14380 ADIANTUM SP. Chile, VI, Cachapoal, Rio Cachapoal valley, W of Pangal. 950 m. Fissures on boulders in shade of deciduous woods. 2.3.94 (Distinct, leathery leaves. Summer-dormant - treat as A. jordanii. 20 cm.) C

14302 ASPLENIUM SP. Argentina, Rio Negro, Bariloche, Cerro Tronador E side. 1200 m. Among igneous boulders on steep slopes. 21.2.94 (Dwarf, alpine. Thick, cut fronds. May not be an Asplenium at all.) C

* ATHYRIUM OTOPHORUM Magnificent in our cold greenhouse - we have it outside as well but it starts late. Japanese with grey-green fronds, metallic bronze-pink when young. Sows itself here. About 60 cm. B

12962 CHEILANTHES GRACILLIMA Cal., Siskiyou Co., W of Yreka, NNW of Gunsight Peak. 1750 m. Fissures on igneous cliffs. 11.6.92 (Dainty, 10 cm. high, lacy, tufted fern. Fronds backed with cinnamon-brown wool.) B

13696 CHEILANTHES MYRIOPHYLLA Ecuador, Pichincha, Volcan Pululahua. 3000 m. Steep, volcanic cliffs, usually in shade. 5.7.93 (Used to seasonally dry conditions here - should be hardy in a cold greenhouse. 20 cm.) C

13766 CHEILANTHES SP. Ecuador, Carchi, SW of Bolivar. 2600 m. Among rocks on steep, clay slopes. 9.7.93 (From a very dry interandine valley - 'summer'-dormant. Should fit in with species from Mexico & SW USA.) C

CYATHEA SP. M. Wickenden coll. : New Guinea. Collected at a high altitude - a tree-fern worth trying in UK. C

13668 CYSTOPTERIS SP. Ecuador, Pichincha, SW of Volcan Cayambe. 4200 m. Moist cliff. 3.7.93 (Tiny, dainty alpine.) C

12632 LOPHOSORIA QUADRIPINNATA Chile, X, Llanquihue, Rio Petrohue valley, NW of Ralun. 150 m. Moist banks at edge of forest. (Majestic, finely cut fronds to 2 m. from a crown matted with golden-brown hairs. Near hardy.) C

14381 POLYPODIUM SP. Chile, VI, Cachapoal, Rio Cachapoal valley, W of Pangal. 950 m. Fissures on boulders in shade. 2.3.94 (We did not think polypodies grew in Chile but it looks a bit like one to the uninitiated. 30 cm.) C

THE BACK-YARD EXTENSION : GLADIOLUS CARMINEUS

Only known from a few sandstone cliffs near the coast in the Caledon & Bredasdorp districts of the southern Cape, South Africa, this has grown successfully outside with Stan Farwig & Vic Girard in Concord, California, for well over 10 years, tolerating their frosts well, so it should be no trouble at all grown frost-free - or even in an unheated greenhouse - in the UK. One of the few hysteranthous species in the genus - flowering in autumn before the leaves appear - with a bare, 30 cm. stem carrying 2-6 flowers, 6-9 cm. across, in a "delightfully rich pink" - "deep rose pink or carmine" - with a cream median stripe, edged with purple-pink, on the lower segments. 1994-95 Californian seed of this famously beautiful and genuinely rare winter-grower will flower in 3-4 years. (10 seeds) D

CARYOPTERIS INCANA

Everyone in the UK knows Caryopteris x clandonensis, of which this is reputed to be a parent - generally dismissed with faint praise. According to Hillier's manual C. incana is a "dwarf shrub" ; according to Bean "a deciduous bush 3 to 5 ft. high". According to Ohwi's 'Flora of Japan', it is a "perennial herb, 30-60 cm. high" - Don Elick agrees and writes that "it produces tall wand-like stems, with me well over 1 m. tall...the colour is a glorious, luminous pure deep violet that shows up to perfection in a perennial border. It blooms until it is snowed under." "As far as I know, there remain only a dozen or so sites within the political boundaries of Japan, all on the islands off western Kyushu." The fact that two authors described a Nepeta incana might explain the discrepancies but let us get this taxon established widely in cultivation. If we wait for someone to write their doctoral thesis on Caryopteris, this might have been lost forever through botanical sloppiness & disinformation. Seed from Don Elick's Japanese back-yard, from a plant collected on Tsushima Island, near Korea in the East China Sea. (15 seeds) D

NOT IN THE BACK-YARD YET : SHORTIA SOLDANELLOIDES var. INTERCEDENS

Don Elick writes "probably the most exciting & significant seed collection I have ever made. I introduced this var--ant to England via Gerry Mundey in the early 1980's and a plant he managed to establish got a PC at an AGS show & was subsequently illustrated in their Bulletin...Over the years that I have known about it, at least half if not more of its sites have been drowned in hydroelectric schemes..This seed came from the same colony that provided the plant sent to Gerry Mundey ; it is the first time since then that enough seed has been set to make a distribution possible. I was able to reach it thanks to a disinterested friend with a very long lightweight aluminium extension ladder & a pair of lineman's boots." Coll. : Japan, Shizuoka Pref., Tenryu River gorge near Funagira Dam. 150 m. On dark damp serpentine cliffs among evergreen scrub. 11.12.94. (You'll need a lens to count but 20+ seeds) F

PRICE CODE A	:	$2.00	;	£1.50	;	DM4, -	;	FF13. -	PRICE CODE D	:	$5.00	;	£3.50	;	DM 9, -	;	FF30. -
B	:	$3.00	;	£2.00	;	DM5, -	;	FF17. -	E	:	$7.00	;	£4.50	;	DM12, -	;	FF40. -
C	:	$4.00	;	£2.50	;	DM6, -	;	FF21. -	F	:	$9.00	;	£6.00	;	DM15, -	;	FF50. -

SECTION III : SEEDS FROM CULTIVATED PLANTS & OTHER AREAS

ALBUCA HUMILIS Dwarf, fairly hardy, S African bulb. Upturned, almond-scented, green & white snowdrops. (20+ seeds) B

ALLIUM ATROPURPUREUM Handsome umbels of starry, rich red-purple flowers on 50 cm. stems. (15+ seeds) B

BODEANUM "Certainly one of the more remarkable species" wrote Per Wendelbo. In Sect. Acanthoprason, with two big blue-grey leaves and a large, almost stemless head of starry, lilac flowers. Kopet Dag & NE Iran. (8 seeds) E

CAESIUM Very fine, rich-blue form originally from Tashkent BG. No bulbils in the flower-heads. (20+ seeds) B

CARINATUM subsp. PULCHELLUM Excellent garden-plant with umbels of rich purple flowers. No bulbils. (20+ seeds) A

DICHLAMYDEUM From an outstanding, deep-coloured clone selected by Wayne Roderick & grown by Kath Dryden. (20+) B

PENINSULARE Red-purple flowered Californian about 20 cm. high. Good in a bulb-frame in UK (20+ seeds) A

SIBTHORPIANUM Dainty, dwarf, W Turkish species. Thready leaves & pink flowers on 10 cm. stems. (10+ seeds) B

SUWOROWII Bulbous Central Asian with hemispherical umbels of rose-violet stars. Up to 1 m. high. (20+ seeds) A

UNIFOLIUM Rhizomatous, pink-flowered species from moist sites in N California & Oregon. 30 cm. (20+ seeds) A

ANEMONE RIVULARIS Branching stems of little, white, blue-backed cups. Fine perennial, about 50 cm. high. (20+ seeds) A

ANGELICA ACUTILOBA From Panayoti Kelaidis who recommends it as a "really fine" border-plant. 60 cm. (20+ seeds) B

SETCHUENSIS Ex CLD 963 : China, Yunnan, Lijiang, Yulong Shan. 3100 m. River side. (Fine foliage.) (15+ seeds) B

AQUILEGIA FORMOSA From a very vigorous & floriferous form, originally from Vancouver Is. Scarlet & yellow. (50+) A

ARISAEMA CONSANGUINEUM Tall & elegant to 1 m. high. Green, hooded spathes with elongated, drooping tips. (10 seeds) B

FLAVUM Bright yellow-green spathes appear with the leaves. Likes drier conditions than most species. (10 seeds) B

FLAVUM ex W. & W. 266 From a wild coll. grown by Mike Tucker of this widespread species. (10 seeds) C

GRIFFITHII var. PRADHANII Local race of this extraordinary Himalayan species - see 'The Backyard'. (10 seeds) E

ROBUSTUM Very hardy NE Asian species with green, white-striped spathes. Sometimes grown as A. amurense. (10) C

TORTUOSUM Green-spathes with bizarre, long, S-shaped spadices. From stock grown outside in Somerset, U.K. (10) C

YAMATENSE var. SUGIMOTOI D. Elick coll. : Japan, Honshu, Shizuoka Pref., Ogasa. nr. sea-level. 13.11.94 (Local with long-acuminate, green spathes, yellowish inside. Pedate leaves, sometimes silvered.) (8 seeds) E

SPECIES CT 369 Grown in UK at present as "A. ciliatum", which it superficially resembles but is more likely to be a striped form of A. consanguineum. Brown & white striped spathes on mottled stems. 60 cm. Ex Sichuan. (8) E

ARUM CRETICUM Elegant, sweet-scented bright-yellow spathes. Good garden-plant in a hot, dry site (10 seeds) B

CYRENAICUM Striking, large spathes, purple inside. Libyan relative of A. palaestinum. Frost-free. (10 seeds) B

RUPICOLA var. VIRESCENS (= A. conophalloides) Green spathes with massive spadices. Tall & vigorous. (10 seeds) B

ASTRANTIA MAXIMA Strawberry-pink heads carried singly on 50 cm. stems. Running mats of 3-lobed leaves. (20+ seeds) A

BABIANA STRICTA Dwarf, blue-violet to red-violet S African from corms grown outside in Devon, UK. (20+ seeds) A

BELAMCANDA CHINENSIS Orange-yellow, red-spotted flowers. Blackberry-like seed-heads. Borderline hardiness. (10+) A

BERGENIA - RED HYBRIDS From our best named, crimson clones. Tough, beautifully coloured winter foliage. (50+ seeds) B

BERGENIA - WHITE HYBRIDS From compact whites bred from B. stracheyi - a lot come appleblossom pinks. (50+ seeds) B

BULBINELLA HOOKERI Spikes like little Kniphofia-heads in yellow from grassy tufts. Hardy New Zealander. (20+ seeds) A

BUPLEURUM SPINOSUM Spiny, hedgehog-hummocks with acid-yellow flowers. Hot, dry raised bed or scree. (20+ seeds) B

CAMASSIA LEICHTLINII - WHITE From an excellent creamy-white clone. Robust & striking garden-plant. 1 m. (20+ seeds) B

CAMPANULA CASHMERIANA Downy, grey leaves & lavender bells on branching stems. Alpine-house. (50+ seeds) A

CARDIOCRINUM GIGANTEUM Stems can tower to 4 m. with funnel-shaped, fragrant, white flowers. Woodland. (20+ seeds) B

YUNNANENSE Shorter, 2m., purple-stemmed Chinese race - terminal flowers open first. Rich & moist. (20+ seeds) B

CARYOPTERIS INCANA Violet-blue flowered parent of the well-known C. x clandonensis - see 'The Backyard'. (15+ seeds) D

CIMICIFUGA SIMPLEX from 'BRUNETTE' (= 'Atropurpurea') Needs some selection from seed to obtain those with the very deepest purple foliage & stems but most will come purplish to some degree. Striking 2-3 m. perennial. (20+ seeds) C

CLEMATIS ARISTATA M. Harvey coll. : Tasmania, Mt. Wellington. Climber with creamy white flowers. (20+ seeds) B

GENTIANOIDES Coll. S Hobart, Tasmania. Starry, white, scented flowers. Dwarf, herbaceous. 30 cm. (20+ seeds) C

NAPAULENSIS Our seed of this N Indian, winter-flowering climber. Cream with purple stamens. 3 m. up. (20+ seeds) B

PANICULATA Tasmanian seed of this white-flowered climber with yellow stamens. 3 m. (20+ seeds) B

CODONOPSIS CONVOLVULACEA Exquisite, summer-growing, tuberous climber. Wide-open blue bells marked crimson. (30+) B

OBTUSA Lumped into C. clematidea, this PF coll. from Afghanistan is rather distinct. Grey-blue bells. (30+ seeds) A

COLCHICUM AUTUMNALE Lovely, autumn-flowering, European meadow-plant. Lilac-pink. Naturalises in UK. (30+ seeds) A

CORSICUM Lilac-pink, unchequered flowers in autumn. Narrow, lanceolate leaves. Neat, dwarf & hardy. (20+ seeds) B

DIAMPOLIS An obscure Bulgarian maybe near C. szovitsii. Stock grown by Don Elick - no 100% guarantee. (15+ seeds) C

COMMELINA DIANTHIFOLIA Gentian-blue tradescantia-flowers. Like a much-reduced C. tuberosa. Quite hardy. (20+ seeds) B

CONANDRON RAMONDIOIDES D. Elick coll. : Japan, Shizuoka Pref., near Fukuroi. 100 m. Dark, damp clay banks over serpentine. 11.12.94 (Rhizomatous member of Gesneriaceae with many small purple flowers on 15 cm. stems.) (50+) E

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

CORYDALIS RUPESTRIS Filigree, greyish leaves. Pale lemon-yellow flowers. Dwarf saxatile alpine-house plant. (20+) C

CROCUS FLAVUS Orange-yellow wild form. (15+) B

CROCUS KOTSCHYANUS Autumn. Lilac. Hardy, easy. (20+) A

CROCUS HADRIATICUS White. Autumn. Frame. (15+) C

CROCUS OREOCRETICUS Lilac. Autumn. Bulb-frame. (15+) C

CYCLAMEN Like most summer-dormant species, these germinate at low temperatures. While many of the following may be available from 1995 seed, we shall not be able to list this until November or December, by which time the following should have germinated for northern hemisphere customers. Soaking seed in hot (not boiling) water & leaving for at least 24 hours at room-temperature before sowing appears to aid germination. For further information on species, C. Grey-Wilson's monograph is a reliable and unrivalled reference work (published 1988).

CYCLAMEN CILICIUM Hardy. Red-nosed pink. (20+) A

CILICIUM - WHITE, PINK NOSE Ex a PD coll. (10+) C

COUM - MIXED FORMS Pink, red, white. (15+) A

COUM - PEWTER LEAVES Ex 'Maurice Dryden'. (15+) D

CYPRIUM White, pink nose. Tender. Autumn. (15+) B

GRAECUM Pink, fine leaves. Tender. Autumn. (15+) B

HEDERIFOLIUM Hardy pink & white. Autumn. (20+) A

CYCLAMEN HEDERIFOLIUM f. ALBUM Vigorous, white. (20+) B

HEDERIFOLIUM 'WHITE APOLLO' Superb leaves. (15+) C

INTAMINATUM Tiny, white. Autumn. Hardy. (20+) A

INTAMINATUM - PLAIN LEAVES Robust form. (20+) B

LIBANOTICUM Sumptuous pink. Spring. Tender. (15+) B

PERSICUM Pinks & red-nosed whites. Tender. (15+) B

PURPURASCENS - SILVER LEAVES Ex M. Koenen c. (15+) D

CYCLAMEN HEDERIFOLIUM 'SILVER CLOUD' From Phil Cornish - superlative leaves suffused with silver-white mist. (15+) C

HEDERIFOLIUM 'SILVER LEAVES' From Jim Almond - quite distinct from preceding - arrow-head shaped. (15+ seeds) C

PSEUDIBERICUM Fresh NZ grown seed. Stunning, vivid magenta. With shelter can be grown outside in UK. (15+ seeds) C

DAPHNE ALPINA Hardy, deciduous dwarf with creamy, vanilla-scented flowers in summer. About 30 cm. high. (10 seeds) A

KOSANINII From an odd plant grown by Simon Bond under this name. Like D. oleoides. Pinkish flowers. (10 seeds) C

PONTICA Shade-lover with glossy, evergreen foliage and scented, yellow-green flowers in early spring. (10 seeds) A

DELPHINIUM SEMIBARBATUM (= D. zalil) Pale yellow, tuberous Central Asian. Bulb-frame in UK. About 60 cm. (20+ seeds) B

TATSIENENSE From Alan Edwards' splendid form. Large, deep-blue flowers. Sun & good drainage. 50 cm. (20+ seeds) B

DIERAMA LUTEO-ALBIDUM Ex CD & R 224. Pendulous, white to cream bells. May have crossed in cultivation. (10 seeds) D

PAUCIFLORUM Ex CD & R 192 : RSA, NE Cape, Naude's Nek. 2500 m. Wet, peaty soil. (Excellent & absolutely hardy here. Many wiry stems of purple-pink bells, much earlier than any other (so seed is pure). 50 cm.) (15+ seeds) C

aff. PENDULUM Old garden stock nearest this. Pendant, wide-spreading, pink bells. 1.5 m. arching stems. (20+) A

aff. PULCHERRIMUM Taller with larger, longer, narrow bells in deep, glowing carmine-pink. 2 m. (15+ seeds) B

DIONYSIA INVOLUCRATA - WHITE Hand-pollinated seed from Henrik Zetterlund at Goteborg, where this colour-variant recently occurred. For careful cultivation by the alpine-house enthusiast, who will know all about it. (10 seeds) F

DIPLARRHENA LATIFOLIA Tasmanian grown seed of this native includes some from the selection 'Amethyst Fairy'. One of the hardier races of D. moraea - fairly hardy in UK. White to lilac. About 50 cm. high. (20+ seeds) B

EREMURUS ROBUSTUS Spectacular, 2-3 m. high foxtail lily. Pink spires in early summer. Good soil, sun. (10+ seeds) B

ERYNGIUM BOURGATII Pyrenean sea-holly with cut, greyish leaves and blue-green heads. 60 cm. (20+ seeds) A

DECAISNEANUM Clumps of entire, spine-edged leaves. 2-3 m. branching stems with a multitude of heads. (20+ seeds) A

EBURNEUM Another S American with evergreen clumps of tropical effect. Extremely hardy. 1.5 m. (20+ seeds) A

SERRA Bigger, green-white heads close on stout, 2 m. stems. Rosettes of shiny, saw-edged foliage. (20+ seeds) A

X ZABELII From the 'Slieve Donard' clone of this fine E. bourgatii x E. alpinum cross. Rich blue. (20+ seeds) B

EUPHORBIA MYRSINITES Prostrate stems clad in sculptured, grey-green leaves. Acid yellow heads in spring. (15+ seeds) A

FRITILLARIA ACMOPETALA Green & maroon. Easy. (20+) A

BUCHARICA White, tinted green. Frame. (15+) C

GRAECA Dwarf forms ex P. & P. Watt. (15+) C

FRITILLARIA LUSITANICA Yellow-green & brown. (20+) A

PALLIDIFLORA Big pale yellow. Very hardy. (20+) B

PURDYI Easier than most Americans. Frame. (20+) C

STRAUSSII Exceptionally rare in cultivation. From a 1966 A.C. & W. coll. (possibly Turkey, Hakkari) crossed with a plant grown by the late Ole Sonderhousen. We have not found this easy (from a PF Iranian coll.). (8 seeds) F

GENTIANA ASCLEPIADEA Glorious, late-flowering willow gentian. Arching 1 m. stems with deep blue flowers. (50+ seeds) A

PARADOXA Blue & green trumpets. Linear, vericillate leaves. Limestone relic from Abkhazia. 20 cm. (50+ seeds) B

VERNA Exquisite azure-blue spring gentian. The fine cultivated strain grown as G.v. "angulosa". (30+ seeds) A

GERANIUM CLARKEI Rhizomatous, Himalayan version of G. pratense. From the glowing 'Kashmir Purple'. 50 m. (10+) B

MACRORRHIZUM Unparalleled ground-cover of shiny, scented leaves. From Hans Simon's magenta 'Czakor'. (10+ seeds) A

PLATYPETALUM From Roy Lancaster's violet-blue clone from the Caucasus, 'Georgia Blue'. 40 cm. (10+ seeds) B

PRATENSE f. ALBIFLORUM Vigorous white form of the meadow cranesbill. Easy & about 1 m. high. (10+ seeds) A

PSILOSTEMON Luminous magenta with glossy, black eyes. Sumptuous with purples. About 1 m. (10+ seeds) B

SANGUINEUM From Hans Simon's outstanding clone, 'Elspeth'. Bright purple-red for a sunny border. (10+ seeds) A

SANGUINEUM var. STRIATUM From the dwarf, flesh-pink & its seedlings 'Shepherd's Warning' & 'Jubilee Pink' (8) B

SINENSE Small flowers with glossy maroon-black petals reflexing around crimson stamens. 60 cm. (10+ seeds) A

WALLICHIANUM Ex Udai Pradhan 89-42 : Garhwal Himalaya, N India. Slightly variable, white-centred rose-pink flowers go on until stopped by frost. Very vigorous, wide-spreading, prostrate stems need space. (10+ seeds) B

WALLICHIANUM 'BUXTON'S VARIETY' Better-known, lavender-blue form with larger white centres. 1 m. across. (10+) A

PRICE CODE A :	$2.00 ;	£1.50 ;	DM4, - ;	FF13. -
B :	$3.00 ;	£2.00 ;	DM5, - ;	FF17. -
C :	$4.00 ;	£2.50 ;	DM6, - ;	FF21. -
PRICE CODE D :	$5.00 ;	£3.50 ;	DM 9, - ;	FF30. -
E :	$7.00 ;	£4.50 ;	DM12, - ;	FF40. -
F :	$9.00 ;	£6.00 ;	DM15, - ;	FF50. -

GEUM COCCINEUM The true Balkan species (not G. chiloense). Orange scarlet. For a moist spot. 30 cm. (30+ seeds) A

GILLENIA TRIFOLIATA Elegant, 1.5 m. high hardy perennial. White flowers from red calyces. Sunny site. (20+ seeds) B

GLADIOLUS CARDINALIS Spectacular crimson with white flash. S African best grown frost-free - don't dry. (15+ seeds) B

CARMINEUS Intense rose-pink flowers before the leaves, in autumn. See 'The Backyard' for details. (10 seeds) D

MACULATUS subsp. MERIDIONALIS Lovely salmon-flowered winter-grower from the Cape. Frost-free. (15+ seeds) B

GLAUCIUM CORNICULATUM Showy horned poppy with many orange flowers. Biennial for a hot, dry place. 30 cm. (20+ seeds) A

GUNNERA SP. From a very high altitude coll. made by Michael Wickenden in New Guinea. (15+ seeds) C

GYPSOPHILA TENUIFOLIA Woody based perennial. White to pale-pink flowers on 20 cm. stems. Lovely. (20+ seeds) A

HELLEBORUS Please see comments under this genus in Section II. Will McLewin can send seed from hybrids in summer.

HYPOXIS HYGROMETRICA E Australian corm with racemes of bright yellow flowers. 15 cm. Frost-free. (20+ seeds) B

INCARVILLEA SINENSIS From a creamy white form. Masses of tubular flowers on shrubby growth. 40 cm. (15+ seeds) B

IRIS DECORA Tuberous. Purple. 20 cm. Frame. (10) B

FERNALDII Pale yellow Californian. (15+) B

FOETIDISSIMA var. CITRINA Yellow. Easy. (15+) A

MILESII Purple-mottled lavender. 70 cm. (10+) B

ORIENTALIS (= ochroleuca) White & yellow. (15+) A

IRIS SETOSA var. ARCTICA Dwarf. Blue. Moist. (10+) B

SUBBIFLORA Pure-violet. Bearded. 50 cm. (10+) B

TENAX - BLUE FORM Outstanding form. 30 cm. (15+) B

TROJANA Pale-blue & purple. Bearded. 70 cm. (10+) B

MAGNIFICA Easy Juno. Pale-blue. To 1 m. (10+) B

KIRENGESHOMA PALMATA Branching, dark stems with waxy, ivory-yellow flowers. Choice, Japanese woodlander. (15+ seeds) B

KNIPHOFIA NORTHIAE Ex CD & R 164 : RSA, NE Cape, Busterroedpad. 2000 m. Peaty wet hillside. Authentic UK grown seed from Martyn Rix of this superlative, architectural foliage-plant. Yucca-like, glaucous foliage. 1 m. (15+ seeds) B

LATHYRUS AUREUS Erect, 80 cm. high perennial with racemes of ginger-orange flowers in summer. (10+ seeds) A

LATIFOLIUS 'WHITE PEARL' Excellent, perennial, climbing sweet pea. Comes evenly white from seed. (10+ seeds) A

ROTUNDIFOLIUS Brick-red perennial climber. Less vigorous than above. Does well in cool climates. (10+ seeds) A

TINGITANUS - PINK FORM Fine & most uncommon form which sows itself with Alan Edwards (Surrey, UK). (10+ seeds) A

VERNUS Lovely, dwarf, early-flowering perennial. 30 cm. clumps are a mass of purple-blue in spring. (10+ seeds) A

VERNUS 'ALBO-ROSEUS' Pink & white version will come evenly from seed. These are neglected plants. (10+ seeds) A

LEYCESTERIA CROCOTHYRSOS Little-known, yellow-flowered shrub of borderline hardiness. See 'The Backyard'. (50+) D

LILIUM MARTAGON 'QUARRY WOOD STRAIN' Very variable from pinks to darker forms. Easy garden-plant in UK. (30+ seeds) A

MARTAGON f. ALBUM Lovely, ivory-white, green-tinged form of this growable species. 2 m. (20+ seeds) A

MONADELPHUM var. SZOVITSIANUM Superlative, pale-yellow Caucasian. Usually reliable in UK. 2 m. (15+ seeds) B

POLYPHYLLUM Ex a C. Chadwell coll. (KBE 93) : Kashmir, NW of Pahlgam. 2200 m. Steep slope below forest. Rather difficult but grows outside here. Exquisite pendant ivory flowers dotted with purple. Cool site. 1 m. (10+ seeds) D

SPECIOSUM var. CLIVORUM Ex a D. Elick coll. : Japan, S Shikoku, Agawa River gorge on damp, shady cliffs. "Like a giant Tricyrtis", to 2 m. with up to 20 light pink flowers. Has grown well outside with M. Tucker. (15+ seeds) D

TSINGTAUENSE Distinct, bright-orange NE Asian. Very hardy & good outside in NE USA & UK. 70 cm. (15+ seeds) B

MORAEA ALTICOLA Ex CD & R 180. A succession of large yellow & brown flowers on 1 m. stems. Hardy in UK. (15+ seeds) C

NARCISSUS CYCLAMINEUS Irresistible little bright yellow daffodil. Long trumpets & reflexed segments. (10+ seeds) C

OMPHALOGRAMMA DELAVAYI KGB 800 : China, Dali Pref., Cang Shan. 3850 m. Intense violet. Cool, peaty. (10+ seeds) D

ORNITHOGALUM NARBONENSE Tall, cylindrical racemes of green-striped, white flowers. 1.2 m. Good soil, sun. (20+) A

PAEONIA CAMBESSEDESII Rose-pink Balearic endemic. The dwarfest species. Alpine-house or shelter outside. (8 seeds) C

LACTIFLORA This & the next are wild colls. in Asiatic Russia by a Vladivostok botanist. White. 1 m. (6 seeds) C

OBOVATA Likely to have bowl-shaped, pearly-white flowers with golden anthers. Rounded, greyish leaves. (6 seeds) D

VEITCHII var. WOODWARDII Chinese with nodding clear-pink flowers & glossy, bright-green foliage. (8 seeds) B

PETROCOPTIS LAGASCAE Dainty, saxatile Pyrenean. Many pink flowers. Blue-grey leaves. Scree or trough. (20+ seeds) A

PODOPHYLLUM HEXANDRUM Pink or white apple-blossom on a mottled, umbrella leaf. Himalayan for shade. (5 seeds) B

POTENTILLA NITIDA Silver-leaved cushions with stemless, pink flowers. Trough or rock-garden crevice. (15+ seeds) B

PRIMULA CAPITATA Deepest violet-purple heads, dusted with farina. Well-drained humus in light shade. (50+ seeds) A

CONCHOLOBA Violet powdered with white farina. Choice & distinct - seldom available. Sect. Muscarioides. (50+) C

HELODOXA (P. prolifera) Fragrant, golden-yellow wet-grower from W Yunnan. Sect. Candelabra. 50 cm. (100+ seeds) A

JESOANA Rare alpine in its native Japan. Rose-purple flowers. Rounded leaves. Subsect. Geranioides. (50+ seeds) B

SECUNDIFLORA Umbels of nodding, red-purple flowers. Fine wet-growing Chinese: Sect. Sikkimenses. (100+ seeds) A

RAMONDA MYCONI Beautiful, hardy, violet Pyrenean gesneriad. Treat seed as for Rhododendron. (100+ seeds) B

RHEUM ALEXANDRAE KGB 767 : China, Diqing Pref., Tian Chi, Lake W of Xiao Zhongdian. 3850 m. Striking display of white to greenish cream, papery bracts from smooth, dark, leathery leaves. Rich, moist soil. 1 m. (20+ seeds) C

RODGERSIA PINNATA Ex a Chinese coll. grown by Peter Chappell. Appears the true plant - truly pinnate. (50+ seeds) B

TABULARIS (Astilboides tabularis) Striking, round, peltate, pale-green leaves. Wet-grower. 1.5 m. (50+ seeds) B

PRICE CODE A :	$2.00	£1.50	DM4, -	FF13. -	PRICE CODE D :	$5.00	£3.50	DM 9, -	FF30. -
B :	$3.00	£2.00	DM5, -	FF17. -	E :	$7.00	£4.50	DM12, -	FF40. -
C :	$4.00	£2.50	DM6, -	FF21. -	F :	$9.00	£6.00	DM15, -	FF50. -

RHODODENDRON Most of the following is from our neighbour, Rhododendron enthusiast Geoff Taylor. Nomenclature is largely in line with the Cullen & Chamberlain revision. Ideally seed should be sown in late winter or spring, on a peat-sand mix, watered from below, at 55-60°F (13-15°C) ; dust over with fine grit to anchor when it starts to germinate ; prick-off into boxes as soon as large enough to handle. Kept moving young Rhododendrons grow quickly. All seed is from correctly named material, often of wild origin but it can hybridize. About 20-50 seeds per pack.

AMBIGUUM Subsect. Triflora. Yellow. 2 m. B

ARBOREUM Ss. Arborea. Spectacular red to 10 m. B

AUGUSTINII Ss. Triflora. Good blue form. 3 m. B

CILIATUM Ss. Maddenia - hardiest. White. 60 cm. B

CUNEATUM Ss. Lapponica. Rose-pink. 1.5 m. B

DAVIDSONIANUM Ss. Triflora. Clear pink. 3 m. B

DECORUM Ss. Fortunea. White to pink. 4 m. B

GLAUCOPHYLLUM Ss. Glauca. Bell-shaped pink. 1 m. B

GRIERSONIANUM Scarlet. Needs some shelter. 2 m. B

R. HIPPOPHAEOIDES Ss. Lapponica. Blue. 1 m. B

R. KELETICUM Ss. Saluenensia. Compact. Purple. 30 cm. B

R. LEUCASPIS Ss. Boothia. Milk-white. Early. 60 cm. B

R. LUTEUM Sect. Pentanthera. Yellow. 3 m. A

R. MORII Ss. Maculifera. Spotted white. Hardy. 3 m. C

R. PSEUDOYANTHINUM (R. concinnum group) Ss. Triflora. C

R. SCABRIFOLIUM var. SPICIFERUM Ss. Scabrifolia. 1 m. Rose-pink from deeper buds. Small, hairy leaves. B

R. SELENSE Ss. Selensia. Rarely seen in cultivation. Distinct pale-pink. Dark, rounded leaves. 1 m. C

RHODODENDRON Sect. Vireya : We have seed of three species collected by Michael Wickenden at high altitudes on the island of New Guinea. Vireya seed is reputedly of very short viability but we felt that because the opportunity to acquire such wild collections is so rare and so little is known about most species, it should be tried.

RHODODENDRON SP. A (Small, red) ; RHODODENDRON SP. B (Large, red) ; RHODODENDRON SP. C (Orange) Each C

ROSCOEA CAUTLEIOIDES Exotic-looking, hooded, pale-yellow flowers. 30 cm. Absolutely hardy. Rich soil, shade. (20+) A

SALVIA ARGENTEA Beautiful rosettes of silver-white felt. Usually treated as a monocarpic perennial. (20+ seeds) A

PACHYSTACHYS From Panayoti Kelaidis. Larger version of S. caespitosa. 40 cm. Shrubby. Usually white. (10+ seeds) C

SCROPHULARIA CHRYSANTHA Oddball crevice-plant with brilliant yellow flowers from a J. Halda coll. (30+ seeds) B

SELINUM TENUIFOLIUM Leaves finely cut into a soft-green filigree. "The Queen of umbellifers'. 1.5 m. (15+ seeds) B

SILENE DELAVAYI Ex CLD 778 : China, Yunnan, Lijiang, Yulong Shan, Gang Ho Ba. 3200 m. Dark violet. (20+ seeds) B

TRACHELIUM JACQUINII subsp. RUMELIANUM Dense corymbs of soft bluish-lilac flowers on 15 cm. stems from rosettes of leathery, toothed leaves. A lovely plant of Greek limestone cliffs too seldom seen in gardens. (50+ seeds) B

TULIPA SPRENGERI Elegant, late orange-scarlet.(20+) A

TULIPA STAPFII Dwarf, scarlet. Bulb-frame. (15+) C

WATSONIA MARGINATA Winter-grower from the Cape. 2 m. high spikes of pink or white. Worth trying in UK. (20+ seeds) B

THE BACK-YARD

While we have no intention of claiming you can "save the world in your back-yard", we emphasise here the great number of plant species being preserved by a few thousand specialist-gardeners throughout the world. Though maintain--ing a species in cultivation is not at all the same as allowing it to survive naturally along with its entire habitat, often these species have already lost most of their habitat or had it drastically altered over recent centuries. We seek to reassure gardeners that their knowledge, skills and understanding of plant-life is of great significance and to oppose the alliance of bureaucrats and self-interested 'charities' in their attempts to obstruct the free movement of cultivated material internationally between gardeners. We seek the widest possible dissemination.

ARISAEMA GRIFFITHII var. PRADHANII

We should guess the next genera to have their movement curtailed by CITES may be Trillium and Arisaema. In the case of the latter, it will hardly prevent wild tubers being dug up. Udai Pradhan writes, in his book 'Himalayan Cobra-Lilies' "In north Sikkim, the tubers provide an important winter food and people are given permission to dig the rhizomes for one whole week and thereafter collecting is banned and monitored by the forest department." We fail to see a difference between digging up tubers for food and digging up tubers to sell for money to buy food. The species about which Pradhan wrote is A. griffithii, distributed from Nepal through Sikkim to Bhutan. This variety, originally described as a species, A. pradhanii in 'The Botanical Magazine', 1936, grows in a much more limited area, in Lachung, Lachen and Jeluk, in Sikkim, above 3000 m. among Rhododendron scrub and in more open, rocky places. It is in effect a larger, more spectacular version of what is already one of the most extraordinary species. Usually, two big leaves with three segments overtop the very large spathe, which curves over on itself with two broad, lateral lobes, the whole is up to 20 cm. wide and purple-brown netted with creamy white. The purple spadix-appendage snakes out, tapering to a flagell--ate tail, about 50 cm. long. It is hardy in the UK in well-drained, humus-rich soil in a sheltered, shaded site but barely increases vegetatively. Seed gives the best means of increase. This is from Christoph Ruby in Germany. Soak seeds before sowing, liquid feed and keep well watered after germination. Keep dryish in winter. (10 seeds) E

LEYCESTERIA CROCOTHYRSOS

We must assume this is none too common as but a single plant has been noted by one person in one locality in 1928 : F. Kingdon Ward 8180 : India, Assam, Delei Valley. 1830 m. On steep sheltered gneiss face, in dense thickets. "As for the path, it was a mere ledge high up on the rock face, with terrifying cliffs where we had to climb down shaky ladders forty or fifty feet high, holding on to roots and creepers. On the cliff, which was overgrown with shrubs, I found the golden Leycesteria, a solitary plant with long hanging racemes of golden-yellow flowers..." Toothed leaves on 2 m. high, hollow stems (very difficult to propagate vegetatively). Possible in the milder parts of the UK or very easy in a conservatory. Seed germinates easily but we have found the seedlings difficult & resentful of excess water - treat as for Rhododendron. From a plant grown outside in Bert Hopwoods Torquay (Devon, UK) garden. (50+ seeds) D

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