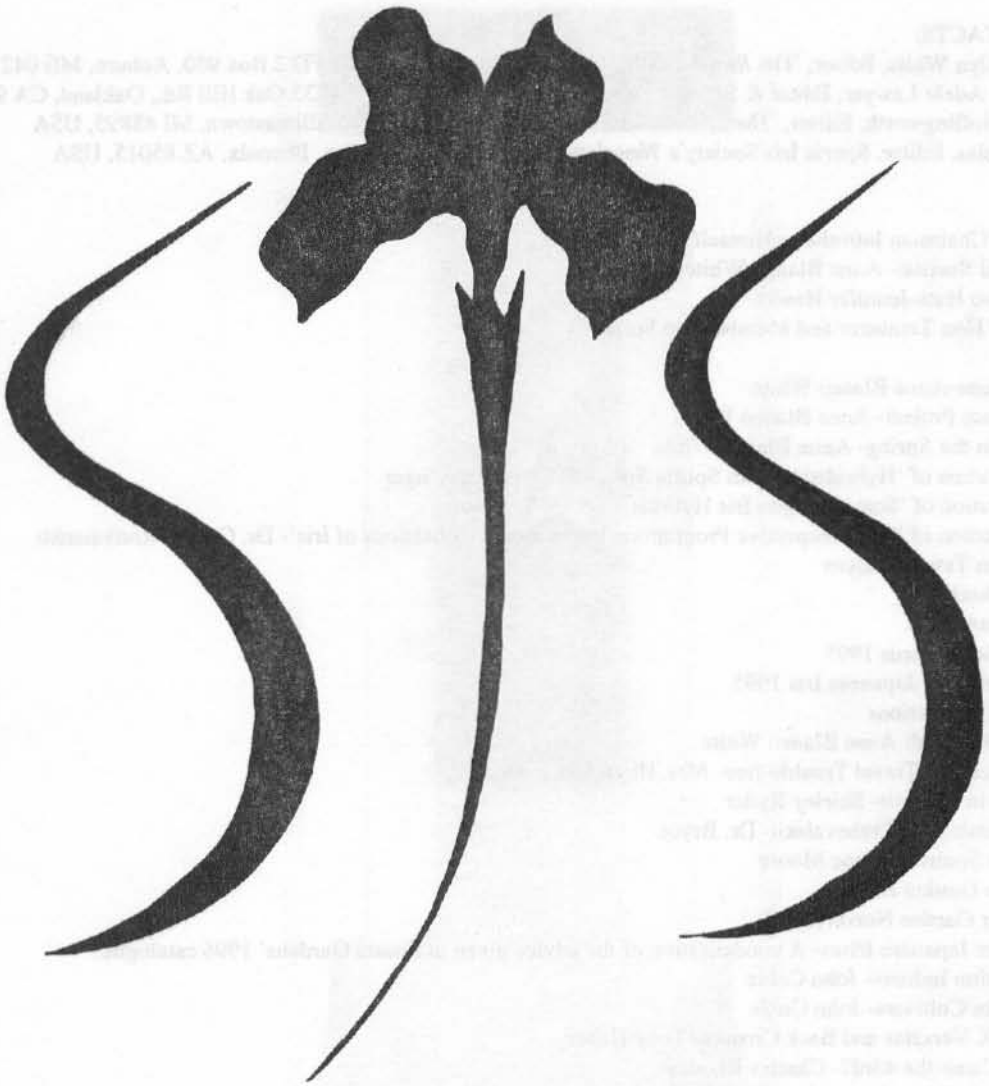
NEWSLETTER



OF THE

SIBERIAN SPURIA AND JAPANESE GROUP (INCLUDING PACIFICAS AND WATER IRIS)

B.I.S.

THE GROUP'S OFFICERS:

Chairman: Mr. Ray Bomford, The Hills, Tanhouse Lane, Beoley, REDDITCH, Worcs, B98 9AB
Vice Chairman: Mrs. Hilda Goodwin, Corner Cottage, School Road, GREAT BARTON, Bury St. Edmunds, Suffolk, IP31 2RT
Secretary: Mrs. Anne Blanco White, 72 South Hill Park, London, NW3 2SN
Treasurer & Membership Secretary: Mr. Philip Allery, 199 Walsall Road, ALDRIDGE, Nr. Walsall, West Midlands, WS9 OBE
Newsletter Editor: Ms. Sue Pierce, 89 High St. Measham, SWADLINCOTE, Derbys. DE12 7HZ
Seed Distribution Officer: Mr. Gary Lewis, Ranchu Lodge, Stone St, WESTENHANGER, Kent, CT21 4HS
Librarian: Mrs. Jennifer Hewitt, Haygarth, Cleeton St. Mary, CLEOBURY MORTIMER, Kidderminster, Worcs, DY14 OQU
Honorary Auditor: Mrs. L. Wilkins, 17 Lancaster Avenue, ALDRIDGE, Nr. Walsall, West Midlands, WS9 8RE

OVERSEAS CONTACTS:

Japanese: Mrs. Evelyn White, Editor, 'The *Review*', The Society for Japanese Irises. RFD 2 Box 980, Auburn, ME 04210, USA
Pacificas: Lewis & Adele Lawyer, Editor & Secretary-Treasurer; SPCNI *'Almanac'*. 4333 Oak Hill Rd., Oakland, CA 94605, USA
Siberians: Mrs. J. Hollingworth, Editor, *'The Siberian Iris'*, 120 Sherwood Rd, East Williamstown, MI 48895, USA
Spurias: Carole Speiss, Editor, Spuria Iris Society's *'Newsletter'*, 6204 N. 15th Avenue, Pheonix, AZ 85015, USA

INDEX:

Page 1 The New Chairman Introduces Himself- Ray Bomford
Page 2 Secretarial Section- Anne Blanco White
Page 2 Under Two Hats-Jennifer Hewitt
Page 4 Report of Hon Treasurer and Membership Secretary
Page 4 Editorial
Page 4 Group Name-Anne Blanco White
Page 5 AIS Disease Project- Anne Blanco White
Page 5 St.Louis in the Spring- Anne Blanco White
Page 6 An Adaptation of 'Hybridising with Spuria Species'- Dave Niswonger
Page 7 An Adaptation of 'Some Apogon Iris Hybrids'- Tomas Tamberg
Page 8 An Adaptation of 'The Prospective Program on International Collections of Iris'- Dr. George Rodionenko
Page 9 News from Tsvetovodstvo
Page 9 SPCNI Checklist
Page 9 Iris Information
Page 9 ISA Species Awards 1995
Page 9 Wisley Trials of Japanese Iris 1995
Page 10 Regretted Retractions
Page 10 South of Watford- Anne Blanco White
Page 11 Potted Pacificas Travel Trouble-free- Mrs. Haywood
Page 11 Extremes in the East- Shirley Ryder
Page 11 In the Footsteps of Przhevalskii- Dr. Bryce
Page 13 Irises and Squirrels- June Moore
Page 13 Waterside Garden Design
Page 13 The Water Garden Nursery
Page 13 Culture for Japanese Irises- A condensation of the advice given in Ensata Gardens' 1996 catalogue.
Page 14 Germination Indoors- John Coble
Page 14 Look Alike Cultivars- John Coble
Page 15 More on X Versatas and Back Crosses- Tony Huber
Page 16 Whence Came the 43rd?- Charles Rhodes
Page 16 A Tetraploid Wild Oregon Iris- B. LeRoy
Page 17 Remembering Michigan '95- Dale Hamblin
Page 17 Iris Typhifolia- A Review-John Coble, Bob Hollingworth
Page 18 Strategies for Hybridising- Marty Schafer
Page 20 Throw Away Your Colchicine: Let Mother Nature do the Work- Bob Hollingworth
Page 20 M.A.S.S. Medley 1996...The Guests- Marty Schafer
Page 21 Australian National Species Collection on the Move- Robyn Rorlach
Page 22 Travels With Irises-Part 1- Arnold McLaughlan
Page 22 Lexington's Meterological Misfits- Mark Cook
Page 23 Absentminded in the Ozarks- Bob Pries
Page 23 The 'Wanted' List
Page 24 The Seed Bank
Page 24 Membership List: 1995 Corrections- Philip Allery

The aims and objectives of the Group:
To foster communication between members in Great Britain and those overseas by the exchange of ideas, seeds and plants; to help newcomers with their interests and problems;
to report on new work in hybridisation.

THE NEW CHAIRMAN INTRODUCES HIMSELF

Who is more surprised I wonder, that I am the new Chairman, the readers or myself? Just over a year as a member! In a sort of self-defence, should it be required, I can point out that I have been a member of the parent BIS for twenty years or so. I do so agree with the retiring Chairman that all members should be prepared to take office and to share in the work. So here goes. Firstly I must hasten to admit that I am not a dyed in the wool Irisarian in the sense that my whole garden, or indeed life, is wholly devoted to iris cultivation. Over the years I have grown and attempted to grow all manner of plants, irises included. Some of the plants, by which I mean the less well known ones, succeed- most do not. Situated in the middle of England and on heavy, basically ill-drained soil, this is not totally unexpected. So I am probably a poor gardener. You may soon judge me lackadaisical and idle but other interests keep side-tracking me. I feel that I am not idle in the sense of say, watching television all day, which I never do, or of frequenting bars or even restaurants- only when invited. But I am idle in that I stay indoors reading something of interest when the weather says "come out and get on with the digging". Incidentally, I really enjoy digging once started. I must confess that 'reading', with me, includes the Horse Race Form Pages, but not exclusively so. I will further admit that no work at all gets done when there is an important race meeting to attend. So I am probably a wastrel also. Everyone knows that all good gardeners are planning, if not working, during every waking moment. I fall short of that ideal except when bathing and on waking in the morning. So judge me as you will. I am probably a fraud but take time over your judgement. Even I might be able to help you sometimes (but not on racing tips-I am dreadful).

I hope that collectively or individually you will implore me to organise something really fundamental for our Group. I promise to do my very best. That sounds suspiciously like a confidence trickster. Be reassured I just haven't the brains, so you are safe there.

I have 1 1/4 acres of garden to tend, or rather indulge myself in. I am not willing, let alone able, to employ someone to help regularly. I am not a slave driver where employees are concerned but being true gardeners yourselves you will appreciate only too well how few and thin on the ground are those who really understand what we are about. In other words, tidiness is not all. Nor, where I am concerned, is garden design. Any design here is dictated by which plants survive and thrive and those that can't stand me, I suppose. So it is obvious that I can't open my garden to the public. I would be held to ridicule. "Call this a garden" they'd whisper. (That must be my weak point- I would hate to be considered a buffoon). Too often in the past I have been round much superior gardens and overheard these comments from these gardening non-comprehenders. They can only see those minor faults called 'weeds' and hardly ever recognise or applaud the occasional good plant at its peak of performance. So I must also be very intolerant of my fellow man, if not a horrible snob.

As I do not have to keep up illusory standards, the garden slides downhill. All over the place are unfinished projects. Drainage trenches, plant beds and deep and as yet unfilled holes. Piles of stones to be moved, bricks to be crushed and mounds of soil to be mixed. That is just the front driveway and I am not exaggerating. Had I any close neighbours they would be clamouring for a rate review. In my defence, I estimate that a garden can be a great bankrupter; so I work on a timespan of years rather than months. I hoard things and never throw them away,- am I mean also? No, I don't think so. I'm an ex-farmer and it shows. The farmer's motto is 'everything will come in useful sometime'. So I live in a scrapyard as much as a garden. I must be mad or at least anti-social. Perhaps I should devote more time to the garden and become more conventional. Less of a layabout and less self-indulgent. In the last issue Geoff Wilson self-deprecatingly suggested that he was mad. Of course he is not, we all understand that. In my case you, the jury, will still be deliberating.

My favourite plant in the whole garden is a fruiting cherry 'Merton Biggareau' planted over 40 years ago when I was a mere teenager. It has blossoms equal to any other cherry with the promised bonus of luscious fruit. For our valued American members I will describe it as our nearest to their famous 'Bing' cherry, but I must admit, not quite as superlative. For years we had a colony of PCI's around it but they have long since been outshaded. For the last 6 or 7 years it has yielded next to no crop. We seem to be getting earlier milder springs intersected with ferocious frosts. Perhaps it is as well, as I have promised myself that when it does perform properly I will risk life and limb, not to mention expense, and net the whole tree. Thus, I am somewhat of a glutton. It is not a very scientific observation, and I have no proof, but these untypical spring frosts have convinced me that we are indeed undergoing a change of climate. In our green and pleasant land the over-riding fear of mine now is of late summer drought. After last summer's heat this winter we seem to have had insufficient rain or floods to replenish the deep reservoirs. That is deemed 'tempting Providence' I believe, I hope He is listening. The new water authorities seem intent to boost their profits and our hosepipe bans appear planned to be a permanency. I just wonder how these gentlemen will react this coming summer if we do indeed have such intense heat as last time, with not a cloud in sight. The complacent and phlegmatic English especially, might just get very frustrated and nasty. Even non-gardening gardeners, as I will dismiss them, like to sprinkle their lawns. So to add to my list of faults, I am an absolute cast-iron pessimist. (With reason where the water authorities are concerned. Ed.) I would like to hear from fellow members on the water requirements of our irises and information as to what materials are used to mulch them.

But I digress. In addition to a few cherries, pears and plums I grow upwards of 25 different apple varieties. Our American friends might like to know that I have been munching a bumper crop of 'King of Tompkins County' one of the finest late-keeping apples I know of.. Last year saw the heaviest crop in 25 years, so perhaps the climate is not totally against us just yet. Is this apple still grown in the USA? It was introduced in the early 1800's and must rank as one of the best American horticultural exports. Lilies, irises and 'Golden Delicious' not excepted. I hope it is not another case of the Brits telling the Americans of their own treasures. Naturally these fruit trees expand and create shade, thus the amount of ground available for other plants gets rather cramped. What plan existed in their minds when my parents began gardening here was mainly a series of winding paths which intercrossed and backtracked all over the place. The idea, I suppose, was that any good plant was only about 6' from a path. It may not seem much but in 1 acre a very long path can be fitted in and scores of plants grown. Tending them has assumed the dimensions of the painting of the Forth Bridge. For weeks on end I do not see all of it and what few plants remain often bloom unseen. For your information, camellias seem to be the only plants that can be covered with nettles and even brambles and grow on unconcerned. Plant them and leave untended for 15 years. I had thought of looking for an even larger garden. All my friends and relations were aghast, how could I be so foolhardy at my age? If a suitable spot came on the market I could still show them!

In the meantime for the last 5-6 years I have grown an ever increasing number of plants in pots and tubs. Front and back lawns no longer exist, just large rows of containers- some 200-300 of them. Woody plants, herbaceous plants, lilies and, of course, Irises- almost anything. I get greater enjoyment from them than I could conceivably have imagined in the past. I feel I am retreating to my bunker. I have come to the conclusion that growing a few choice plants in large containers is not a bad way of gardening. Some 25, in theory, could supply a different plant each fortnight per year. Ten would cover that period, when other gardens are empty, say from November to mid-March. I have spuria, ensata and sibirica seedlings in containers. I rather think that this method of growing is not approved of by experts, so information on the growing of Irises in tubs would be much appreciated in this quarter. It may well be covered in an earlier Newsletter, in that case please excuse my ignorance.

As I have implied, I push on little by little in putting the paths in better order. It takes very few years of neglect for Nature to take charge. Survival of the fittest is not a bad idea, if a little restrictive in choice of plant. Every year we must try something new and strange in the hope that it will survive and compete and supply an eventual surprise. My greatest enthusiasm now is in raising plants from seed and in propagation generally. I am fitting out a spare bedroom with second-hand fridges- yes, I have an indoor scrapyard too- and 4 large galvanised trays. Each tray holds 64 square 4" pots as deep as can be found. Every pot is enclosed in its own individual polythene bag of the lightest gauge possible. Not everyone encloses seed pots this way (but then again I may be wrong in my assumption) as they fear the plants will rot off. I find that provided the compost is at least 50% grit/ perlite I get satisfactory results. After an indeterminate period in the fridge- that is, when I remember to remove them- or approximately 6 weeks, I put them under a large growing light. The polythene bags protect the seedlings during longish periods of semi- neglect and then I have more plants to put into containers. I have read recently that there has been a spate of thefts of these lights from large commercial nurseries. Whole ranges of lamps have been removed and installed in private lofts and attics for the growing of cannabis sativa. In my innocence I suppose that a home-spun textile industry might be in the offing. As yet I have not been taken in for interrogation, but the house must resemble a mini-lighthouse at 4 am in the morning.

Well, I think you have learnt enough to realise what you have had unleashed upon you. I know only too well that I will be the one who gains most. Please bear in mind criticism is as welcome to me as are helpful suggestions. On a postcard in green ink is the usual method; then the neighbours get their worst fears confirmed.

Kind regards and best wishes for a nice wet year.

Ray Bomford

SECRETARIAL SECTION

It is with great satisfaction that I can tell you all that we have a new Chairman for the new year in Ray Bomford. He is not actually a newcomer to irises because his father before him was, and he has been, an enthusiast for many years. West & Midlands members may know him since he also belongs to that Group. He is full of enthusiasm, not only for growing irises, but he has also joined the treks to the Himalayas in search of the plants and seeds which have been causing so much excitement in recent years. He is keen on raising plants from seed and interested in investigating the best conditions for raising irises from seed and developing the seedlings into healthy plants. Indeed, he celebrated his induction to the post by drawing my attention to an extremely interesting work by an American chemist on the subject. Candidly, dear members, I feel that we are not good about doing anything with seeds except collecting them. And now that so many new species and Cultivars are available, it does seem a pity not to take advantage of them to carry on to better things. So I hope Ray will be able to enthuse you with a desire to do better- particularly with eight flowered Spurias.

Raymond, we are very glad to welcome you and hope that you will enjoy your years in office.

Apart from that I think the group is doing nicely. Philip has the finances safely under control, Sue is to be congratulated on her first newsletter and Gary would like you to try growing more irises from seed.

Now, please keep the balls rolling,- we need to hear from you: to know what you want from us, to know what you do and to pass al the information you can offer onto other members.

And, by the way, Scotts Nurseries, Merriott, Somerset TA16 5PL, which may be known to many of you for other reasons, have introduced a small range of irises. I'm sorry not to be offering any irises this time round, but have been too busy. If any of you will have surplus stock this season, do please let Sue know in good time for the autumn edition. And again, any seeds should go to Gary Lewis.

Anne Blanco-White.

UNDER TWO HATS

Members of this Group know of me as Librarian, a job which doesn't exactly demand a lot of me; borrowings probably average two per year. It could be a very useful service to members. For the price of postage both ways (you refund the outward postage to me when you return the books or journals) you can read a wide and valuable range of iris literature. Joan Trevithick believed very strongly that the Group Library should be a good resource and stretched the funds to buy items, while we have also benefited from generous donations of books and other material. Then we have the journals from specialist societies in the USA which deal, separately, with most of our combined interests. Articles are reprinted in our newsletter but, there is much more in the American journals than we can include.

A list of the Library contents appears after this article. The normal period for a loan is two weeks from the time you receive the package, but an extension is possible unless someone else is waiting for the same item. First class postage is normally used, because of the value of much of the material. I may not be able to send your request immediately on receiving it, as the nearest Post Office in several miles away and, petrol being the price it is, I don't make special journeys just to send one package! But you should receive what you want, or a notification about it, within a few days So may I look forward to hearing from you?

THE GROUP LIBRARY, November 1995

Books:

Growing Irises	G.E.Cassidy & S.Linnegar. (1987)
The Iris	Brian Mathew. (1989)
Iris	Fritz Kohlein. (1987)
Irises-A Wisley Handbook	S.Linnegar & J.Hewitt (1990)
Irises	Harry Randall (1969)
The Iris	N.Leslie Cave (1950)
Siberian Irises	Currier McEwen (1981)
The Japanese Iris	Currier McEwen (1990)

Booklets:

Alphabetical Table of Species	BIS (1979)
Cultivation of Irises Part II-Beardless Irises	BIS (1979)
Iris Guide No. 2: Raising irises from Seed	BIS (1989)
Know Your Irises	New Zealand Iris Society (1984)
The Genus Iris: Subsection Sibiricae	C.Grey-Wilson (1971)
Irises for the Water Garden	Angela Marchant (1969)
A Guide to the Pacific Coast Irises	Victor Cohen (1967)
A Revision of the Pacific Coast Irises	Lee W. Lenz (reprint 1989)
Hybridization and Speciation in the Pacific Coast Irises	Lee W. Lenz (reprint 1989)
SS&J List of Pacific Coast Hybrids (1990)	
Check List of Siberian Irises	Siberian Iris Society (1991)
Check List of Japanese Irises	Society for Japanese Irises (1992)

Journals:

SS&J Group Newsletter.	1976,1978 onwards
'Almanac': Society for Pacific Coast Native Iris.	Fall 1990, Spring 1991, Spring 1995, Fall 1995.
Spuria Iris Society Newsletter	1976-1985 (incomplete), Winter 1994 onwards.
'The Review': Society for Japanese Irises.	Oct. 1976- Spring 1986 (incomplete), 1987 onwards.
'The Siberian Iris': Society for Siberian Irises.	1977-1987 (incomplete), 1988-1993, Fall 1995

Miscellaneous

Copy of part of Perry catalogue.
'Two Isoflavinoids from the fresh bulbs of *Iris tingitana*'.(offprint from 'Phytochemistry', 1980)
'Three Isoflavinoids from *Iris germanica*'.(offprint from 'Phytochemistry', 1983)

BIS members know that I also operate under another hat, that of Registrar. Here my primary function in to process applications to register iris names and forward then to the American iris Society's Registrar, who is the final authority. If he approves the names, they have not been used before (I do check first as far as possible) and do not contravene any rules regarding nomenclature, he registers then and sends certificates which I then send to the registrants. Registration is highly desirable because it places, on record a full description of the iris and protects the name, which cannot be used by anyone else except in special circumstances. You do not have to be a BIS member to register an iris name, but it must be for a plant which you have raised or whose origins you know. I am only too happy to help anyone who wants to enquire about registration.

But I can help in other ways, especially by researching names which are in use. For this I have the help of Check Lists of Iris names compiled by the AIS and other bodies, plus my own collection of catalogues and other Information. For example, when I read Philip Allery's appeal in the previous Newsletter for information to pass on to John Smith of Devon who had acquired some Japanese Iris cultivars, I was able to supply details which others of you may find interesting:

'Hercule' was raised and/or introduced by Vilmorin- Andrieux et Cie, France, who listed it in 1910. A double, i.e. 6 falls, dark blue with darker veins.

'Galatea Marx' is the correct name for 'Galatea'. In 1961 Walter Marx distributed, but never registered, a 6-fall ruffled near-flax blue with white pencil veining, white styles and petaloides, calling it 'Galatea'. So in 1991 the Society for Japanese Irises (in the USA) registered the iris, but as the name 'Galatea', had already been used for a Tall bearded, in 1939, Marx's JI was registered an 'Galatea Marx'.

'Oku-banri' is probably the correct spelling for 'Oku-bauri', if the plant in question is a 3-fall type with the falls having uneven lavender dots and deep lavender veins. The name means 'Late Wonder' (it is a late-blooming variety) and it was first listed in the USA about 1911.

'Gei-sho-ui' may be a miss-spelling though the Check List records a JI of this name listed at the same time as 'Oku-banri' by the same nursery. 'Gei-sho-mi', which translates delightfully an 'Robes of Feather and Rainbow', may or may not be the correct spelling; it is described as having 6 falls with white zones around yellow signals and white veins on lavender-blue tints. The description for 'Gei-sho-ui' is in code but appears to be very similar though the ground colour could be blue, blue-purple or red-purple, deep or light. Only 'Gei-sho-mi' is listed in the SJI Check List published in 1991, while both that and 'Gei-sho-ui' are in the ATS Check List for 1939, but the SJI description is more precise. When it flowers, Mr Smith can perhaps be more certain which one he has - or perhaps not; trying to identify historic irises can be a difficult business!

'Kuwi-gunjin' is another mystery name which appears nowhere. The nearest to it seems to be 'Kuma-funjin', (once mis-spelt an 'Kuma-jungin'; a clue?). From Yokohama Nurseries in Japan, it was apparently first listed in the West by Kelways in 1910. The name means 'Excited Bear' (one to avoid?) and goes with a late-flowering, 6-falls, intense claret-red which, except for deep yellow throat markings, is a uniform colour throughout, and has a tufted centre.

'Moonlight Waves' is inexplicably omitted from the SJI Check List but appears in the 1939 AIS Check List It is quite widely grown in Britain and may have originated with R.W. Wallace & Sons, or been imported (and the name translated, something they seem to have made a practice of) by them. They first listed it in 1910. it in a white self with hints of greenish-yellow in the centre with 6 falls.

'Dresden China' is an invalid name as it was registered for a pinkish TB in 1936. The JI was listed by Barr's nursery in 1941 and described an a double white self. This corresponds with the Iris listed by John Carter of Rowden Gardens. No problems over identification, I hope, but two irises with the same name, albeit from different sections and of different colours, show that unregistered names have the potential to cause confusion.

'Purple East' is, alas, another JI given the same name as a registered TB but never registered itself. Probably the name would not have been allowed as the purple TB was registered in 1932 in the USA while the earliest listing of the JI seems to have been in 1938. It should be a 3-falls dark purple.

For those who are not familiar with the terminology used to describe Japanese irises, 3-falls or single means the standards are more or less upright and the falls flare or droop. Style arms are normal. 6-falls, or double, indicates an iris in which the standards are often nearly as large as the falls and lie between and over the falls in the same plane. The style arms may be partly or wholly changed to a number of petaloides, sometimes described as a 'tufted' centre or they may be normal.

Perhaps it needs a touch of Miss Marple or intuition (maybe it should be called informed guesswork, but chance and luck can help) to help those who want to know whether the iris they have is what it should be, according to its name. Anyway, it is a part of the Registrar's job that I enjoy and I am glad when I can help. I should add that an enquiry along the lines of "Can you tell me the name of this dark blue Siberian?", even when accompanied by a photograph, is rarely successful. Too often, anonymous irises are so similar to many others that accurate identification is impossible, and even if they are more distinctive, trawling through thousands of names and descriptions needs more time than I have. But there are occasional successes, so do ask if I can help.

Jennifer Hewitt

REPORT OF THE HON. TREASURER AND MEMBERSHIP SECRETARY

Finances: A balance as at 1st March of £446.48 suggests a satisfactory financial state, but alarm bells are ringing. 1995 expenditure exceeded estimated subscription income of £250 by £100. Subscription arrears at 1st Jan. last amounted to an unsatisfactorily high £37.00. The deficit was met by use of much of the donations and plant and seed sale income but this prevents funding improved library facilities, which are vital to a Group such as this. The Newsletter is our lifeblood. Organised meetings are out of the question. Estimates allow for it to be posted at the standard postal rate, which is due to increase. Thanks to the efforts of the Editor and her contributors we are now hard- pressed to keep it within the 100g rate. Congratulations to Anne for her initiative in introducing smaller print and to Sue for taking over with so much energy and enthusiasm. It has been the subject of several appreciative comments and I hope to continue to be able to fund it, but I am limited by the amount members are prepared to contribute. Current balances contain advance contributions required to fund future Nl's for those concerned and I must keep the equivalent of one issues cost in hand for emergencies. Donations in 1995 were £61.67. Our thanks go to Ray Bomford, Hilda Goodwin, Joyce Gray, Jennifer Hewitt, John Beal, John Carter, Gary Lewis, Clarance Mahan, Peter Maynard, Currier McEwen, Norman Payne, Christopher Rose and Ian Smith for their generous support. A further £7.50 has been received this year. Plant and Seed sales contributed a further £53.00 and £13.80 respectively and our grateful thanks go to Anne Blanco White, Margaret Criddle, Jennifer Hewitt and Sue Pierce and Gary Lewis. The next issue will contain the 1997 subscription rates, including any levy on UK members to improve the library. Paper costs have increased and printing and postal costs are about to do so. I am reluctant to increase subs. if it forces those with little to spare out of the Group, but £3.00 for UK and £3.50 for those overseas will be considered. Please bring your arrears up to date or the Autumn issue may be reluctantly withheld. I hope your membership is as important to you as it is to the Group's officers. The possibility of reciprocal arrangements can always be considered. My sincere thanks go to Mrs. Lucy Wilkins for a very thorough audit. The membership year now commences on Jan. 1st annually and personal records have been set up. Please support the Group in any way you can. Happy gardening!

Membership: Members will be saddened to learn of the death of Mrs. Wilkins, wife of Mr. John Wilkins of Southport, who died of cancer at the end of October last. Members of the Group for several years, Mrs. Wilkins shared her husband's love for and interest in Japanese irises and, in memory, John plans to keep up her membership contributions. We send him our sincere condolences in his loss, with our sympathetic appreciation of the tangible manner in which he is planning to commemorate his wife's interest in the Group.

We welcome to membership Mrs. Julia Haywood, Mrs. Anne Watson, Mrs. O. A. Wells and Mr. Julian Bentley. All new members are asked to write articles to tell us a little about themselves; their gardens and their irises. Anne Watson's Hellebore Nursery is open from Feb. 1st - June 1st on Sundays and Mondays only, 10- 4 , Tel: 01977 682263 if you are travelling any distance to check availability. Neither orders nor reservations are accepted and there is no mail order. One of Anne's other interests is sibiricas and I an article from her will appear in the next issue, I hope the first of many from her. Julian Bentley, a final year student, lives in the Oxfordshire watermeadows. He has seven ponds in his back garden and since he studies amphibians, none of them contain fish. He has numerous waterplant species, his favourites being lobelias and irises. He's keen to hear about the water-loving irises. Occasionally we have news of Mr. Akira Horinaka who was seriously injured in the Kobe earthquake and suffered the grievous loss of his wife and members of his family. We now hear that Akira is re-building his house and garden. We send him our good wishes. I wrote to Clarence Mahan regarding John Smith's enquiry about correctly naming his old JI's and from this it seems likely that we have some historic cultivars in the U.K., one now unknown in the U.S. and another both there and in Japan. If this is proven we must protect them. More in the next issue, meanwhile many thanks to the members concerned.

Philip Allery

EDITORIAL

The contributors have been very kind to me for this issue, and I would like very much to express my gratitude for this since it makes my job so much aasier and a lot more enjoyable. Anne, Philip and Jennifer have been their usual generous selves with their time and knowledge, without which this would have been a poorer effort, so my thanks to them also.

One of the reasons that this is such a bumper issue- apart from our new Chairman's marvellously generous offer to fund the extra pages for this one- is that I've included adaptations of speeches given at the St.Louis Conference. Should space be regularly available, I will include future transcripts that come my way. The American Groups have kindly sent me details of their membership lists from which I've seen that very few SS&J'ers belong, but I'm aware that such items may travel by more tortuous paths. They take up quite a bit of space, although making fascinating reading, so if it's all common knowledge, please tell me. The same goes for the re-printed articles.

The most exciting thing in the garden at present is that the *I. fulva* I obtained through the Species Group's postal sale have survived their second winter, so there's a possibility that they may survive here- though not being perfectly hardy- as long as the various types of slug that share the garden- and ocaisionally parts of the house with us- leave them alone. I'm sure having a south facing walled garden helps, but then again, I've five cats, which definitely doesn't. Fondling of them has led me to assume that I may get some first bloom this year from *I.laevigata* and P.C.I. seedlings grown from Group seed, and, I assure you, if I can do it , anyone can. I'm getting consistently exciting results from such seed, largely, I realise, due to being happy just to get anything to flowering size and not being desperate about being at the cutting edge of developments, so when Ray finds his larger plot, I'll have his and really get down to some serious fun!

Sue Pierce

GROUP NAME

Mark Cook from Lexington USA, has suggested the Clean Shaven Iris Symposium which I like, but won't do if things like onco or regelia cultivars are going to move in, let alone possible hexapogons.- six beards, dears, and positively New Age in appearance. Do make an

effort- something that will include all the irises except the garden beardeds and allow for fashion bringing some into favour while others fall into neglect. I suppose I'd better try the family Dictionaries of Quotations.

Anne Blanco White

Another suggestion is the Livelier Iris Group. It is -I'm told- from Locksley Hall by Lord Tennyson: *'In the spring a livelier iris changes on the burnished dove.'* Mark has also suggested the Iris Raisers International Symposium, but it looks like it'll be the Beardless Iris Group (although Anne's comment still applies). The Easier Iris Group has also been suggested, which I think more descriptive, considering the difficulties of some other beardless species, and more likely to attract people who don't know alot about the species. There's going to have to be a time limit imposed soon and if there's no definite decision, the hat will come out, I warn you. Apparently the Livelier Iris Group was widely disliked, so I know there are opinions out there. Please muster them for a last fling and we'll announce the name in the autumn issue.

Ed

AIS DISEASE PROJECT

Many of you will recall that some years ago we were extremely worried about the condition of many sibiricas and spuria plants at Wisley where fairly large numbers of plants are grown in close proximity. Careful research by the Wisley plant pathology laboratory failed to identify any recognised pathogens. At the same time, trouble was being recognised in the U.S. which also affected the Japanese (ensata) group of irises. Dr. Currier McEwen has been co-ordinating the research into these matters and, as you will have seen from 'South of Watford', yet another contender has been identified in Japan.

In fact, most of the irises at Wisley have been unaffected over the last couple of years, but at the same time some plants have disappeared without trace after their arrival in the trials. This may be due to a stress induced flare-up of virus already in the plants when they were received. At all events, things seem to have been fairly satisfactory in the U.S. and while further research is being considered, Dr. McEwen and his colleagues are no longer collecting anecdotal information.

So, particularly for those of us who have suffered 'scorch' symptoms in sibiricas and other phenomena in the other groups, what are we to do? I seriously suggest that new plants, particularly from outside the British Isles, should be quarantined in your gardens until you are sure that they are growing on strongly. You may have to waste a year before you are sure that they are not seriously infectious- and if they suffer a devastating outbreak of a pathogen it will be spread by some endemic vector to a plant which is slightly under the weather as sure as fate. So, watch your plants carefully this spring as they recover- or not- from last summer's drought. If in doubt, hike it out.

Anne Blanco-White.

ST LOUIS IN THE SPRING

And it would seem that spring in this part of the world is pretty short: there is a long, mean winter and a long vicious summer and about six weeks in between when everything is fresh, clean and flowering its head off- if the frost hasn't intervened. We were in luck- this was a perfect spring weekend and even the rain came when it didn't matter. However, this was too early in the year for most iris growers and the only real display came from Lou Danielson of New Mexico who brought some gorgeous oncos just to show the rest of us that they can be grown well away from their homelands. Equally entertaining were some artificial oncos made from the split seed pods of yucca spikes carefully painted in all shades of the rainbow.

Arrivals were presented with a tome about an inch thick and A4 in area which contained the proceedings proper. Although nothing printed in it is to be regarded as definitive, a copy is available in the BIS library if anyone would like to read it. In the main, the print face is large and so there is less to cope with than you might fear. Since we were given the speeches in advance, so to speak, the speakers simply illustrated them with slides so as to bring out their main points. The symposium was entitled 'Gardening with Iris Species' and the word species was used in its widest sense to include what we would regard as beardless iris cultivars. The first evening, inevitably a little disrupted by new arrivals and things which had to be arranged like the plants for sale, was really devoted to slides from visitors who had something of interest to offer from their gardens, but were not official speakers.

Jean Witt made, very strongly, the point that both the introduction of new pure species into a breeding line and the hybridisation of plants previously kept separate, such as the sibiricas and pacificas, have produced some lovely garden flowers. And supporting this, many speakers commented on how new collections are making it clear that the colour ranges in many species are far wider than we had previously assumed.

Dave Niswonger started by reviewing the range of spuria species, their colours and the variable chromosome counts which affect cross breeding potential. Having considered the ranges of colour and patterns available in the TBs, he had wondered if the same potential could exist in spurias and it does seem to. He made the point that hybridising does not change or spoil the original species which can still be grown for their own values, but it produces different plants with different qualities.

Many species spurias are fussy about their growing conditions while the hybrid vigour which frequently results from breeding can produce infinitely more tolerant plants for differing garden conditions. *I. musulmanica* and *klattii* have not only given very good results in various crosses, but those results have been so different that he in convinced that they are indeed different species. So far his work has all been with the larger plants, around 40", but he comments that some interesting results are coming from crossing taller cultivars onto small spurias. The garden and cut-flower value of all this group makes it well worth far more attention from breeders.

When it came to the Pacific Coast species, Colin Rigby commented on the very wide range of colour forms in some species and the way in which (un)natural hybrids occurring in the wild after logging operations have opened up their ranges are increasing these colour variations. He emphasised that he had never had any trouble growing these plants on limestone (not chalk) as long as he paid full attention to their natural requirements in the way of drainage, shelter and so on. In this country nowadays most cultivars are happy on neutral soils and, with the growing need to avid using peat, deliberate selection for non-acid requirements is important. (Incidentally, seedlings can be developed in about 5 years which are fully tolerant of alkaline chalk.)

There was no special talk on Japanese irises, but we know that they can be advanced or retarded within limits to increase the flowering season. Darrell Probst, in central Massachusetts found that the very severe winters deprived him of the glory of the Evansias and decided to experiment with flowering them earlier indoors In the main, the 'cane' Evansias gave the best results and he had grown most of the well known forms and done a good deal of breeding as well. Basically, his plants are brought under cover when the severe frosts set in and are set on windowsills for the winter so that they do get as much light as possible. The critical problem lies in keeping the pots damp for if the soil dries out the roots may die and the plants will soon follow. In spring, after the danger of frost is over, the plants are re-potted and left in the garden

through the summer. *Tectorum* and *milesii* he has found unsatisfactory, but surprisingly, *I. cristata* did well in flowering at the turn of the year, but was too weakened by insufficient light to grow on properly when flowering was over.

Tomas Tamberg discussed many of his fascinating hybrids. He is a very active proponent of crossing all species and in several cases more than two. The use of colchicine-induced tetraploidy has made many plants fertile which were previously infertile and again many of these are better garden plants than their progenitors.

For these, and a number of other speakers, the theme of the meeting was definitely hybridise and hybridise again: produce new irises which will grow in parts of the garden where irises would not grow before and at times when irises are in short supply. Make the fullest possible use of all plants for your interest and other people's pleasure.

Anne Blanco White

AN ADAPTATION OF 'HYBRIDISING WITH SPURIA SPECIES'

Who would have thought that we would get a pink iris from the TB species *I. variegata*? Who knows what lurks in the genes of the Spuria species? Of course, many of the spuria species are beautiful and easily grown in their own right. A border of *I.*graminea around a perennial bed is really nice and in addition you get a fruity fragrance of plum. *I orientalis*(formerly *I.ochroleuca*) is almost as common as the purple flag that the pioneers spread throughout the cemeteries and homesteads of America. Once established, it practically takes care of itself and the white and yellow blooms usually come just in time for memorial Day decorations here in the Midwest. Some of the best blue colors in our gardens come from *I.musulmanica, I. demetrii, I. klattii, I. maritima, I. carthaliniae, I. notha* and *I. pseudonotha* (a lighter blue bi-tone). My favourite of these is *I.*demetrii whose blue color is unfading in our Missouri sun. It is also the last to bloom. *I.* klattii probably comes next with its darker blue standards and lighter blue falls touched off, upon close examination, by its paprika coloured pollen. I am told that *I.*pontica (formerly *I. humilis*) makes a nice rock garden plant blooming only a few inches off the ground with the foliage continuing to grow after bloom which may be its best feature. Interestingly, *I* pontica has the highest chromosome count of the spurias (2n = 72). *I.* kerneriana, I understand, is another species for the rock garden with its graceful foliage its main feature, not its flowers. I saw *I. sintenisii* in New Zealand and it also would work well in a rock garden. Its blooms of blue-purple may be more attractive than those of the former two.

I once wrote a friend who had a certain clone of *I.nelsonii* which was a beautiful red. I was interested in hybridising with it to bring out the red pigment in the louisiana irises. He wrote back and told me he no longer had it and added,' Why do you want to mess it up with hybridization?' I think many iris lovers are content to enjoy the beauty of the species in and of themselves, but I look at what has happened with the breeding of TBs, which are probably in the realm of 25 generations away from the species, and I wonder what colors, color patterns and plant forms might be awaiting discovery in the Spuria species. We are probably not more than eight generations away from the species in our most advanced hybrids.

For example, I first mentioned *I.variegata* being a source in the development of the pink TBs. It may not be known exactly what happened, but it took the combination of carotene and some factor to be present in each of the 4 chromosomes in the tetraploid TBs to convert carotene to lycopene. This gives us our pink color. As an aside, lycopene pigment in tomatoes is red, but the flavones present in irises cause it to appear pink. The presence of flavones, inhibitors and other factors such as xanthophyll (a yellow pigment) contributed by TB species also influences the colors we have in the TBs. What factors might be present in the Spuria species that could cause us to get colors, shapes and forms that are unknown at the present time? Could there be other factors besides inhibitors, flavones, pigments and an T factor whose combination could give us something very pleasing and different? Further, accidents in mitosis or meiosis could give us new genetic material with which to work. It has been noted that some species simply will not grow in areas that are too different from their original habitat. We try to duplicate, as much as we can, the conditions under which species are accustomed to grow and in many cases we are successful, but hybrids appear to have a wider range of adaptability. This may be another reason to hybridize with the Spuria species. It seems difficult to maintain a collection of different species in any one area.

In 1976 I marked my first seedling from a species. It was seedling #12-76. I crossed a seedling from 'Moon by Day' X 'Anacapa' (Sp9-71) with *I.musulmanica* which I had grown from seed. It was a surprisingly good seedling. I tried to set seed on it in 1978, but it would not. In 1982 it set seed from a chance pollination and I marked a seedling from it in 1984 (Sp11-84) which was one of my better ones for that year. Another seedling (SP6-85) from the same parentage was again one of the best seedlings the next year. I probably should have introduced one of these. In 1986 I bloomed some seedlings from 'Missouri Streams' that knocked me over so, I introduced 'Missouri Rivers' and 'Missouri Streams' instead which were blues similar to the seedlings from the *I.musulmanica* background.

In 1978 I bloomed seedlings from *I.klattii* that I had gotten from Earl Roberts of Indianapolis who had gotten it from Dr. Rodionenko. I crossed *I.klattii* with 'Blue Lassie' (Niswonger' 78) and vice versa. This group of seedlings immediately stood out from the rest of the seedlings displaying hybrid vigor. The foliage was twice as wide as the other seedlings, they grew a foot taller (48") and bloomed about one week earlier. There was a range of colors from white to very dark blue and the flower form was more like that of the species. In '83 I introduced 'Russian White' which was from 'Blue Lassie' X *I. klattii* and 'Russian Blue' from *I.klattii* X 'Blue Lassie'. 'Russian White' has the paprika red pollen of *I.klattii.*

As you look up information on *I.klattii* and *I.musulmanica*, you find that taxonomists feel they are the same species: they both have 44 chromosomes, summer-green foliage and pass on very nice foliage to hybrids. From my experience in hybridising with them, the seedlings from them are completely different. since my clone of *I.musulmanica* came from seed, I felt there could have been a mislabelling possibility as so often happens. I mentioned this to Bryan Mathew and he sent me true seed. When I bloomed these seedlings they appeared to be the same as my clone, but I had lost the original plant in the meantime so couldn't really compare them. My memory may be poor but I believe that *I.klattii* and *I.musulmanica* are not the same species.

In '90 I bloomed my first seedling from *I. demetrii*, since I really like its blue color. It was from 'Arts Alive' X *I.demetrii* (Sp46-90), and was one year old. In '91 the rest of the cross bloomed along with a cross from a sibling to 'Missouri Rivers'(Sp1-86) X *I.demetrii*. They were all various shades of blue and about 40" tall. Again the blooms were much like those of the species, but the blue color didn't fade in the sun as do most blues. Sp2-91 was introduced as 'Missouri Springs' in '94 from the cross of Sp1-86 X *I. demetrii*. It increases faster than most varieties and from that standpoint has hybrid vigor. the following year, after I lined it out, nearly every rhizome bloomed. It has summer- green foliage and appears to be an easy grower. At about 40" it's much taller than *I.demetrii* which grows from 24" - 30" for me. It doesn't appear to be very fertile which was to be expected since *I.demetrii* has 38 chromosomes and my seedling probably had 40, giving an odd number in the first generation. I made several crosses in '94, but got no seed, but I'll keep trying for a fertile seedling.

In 1995 I will be blooming *I. notha* from seed. There should be 10-15 seedlings blooming and I hope to make crosses on them. this is one cross I have wanted to make for some time. I have tried to set seed from my hybrids on *I. pseudonotha* but so far no takes. I'm sure that if I keep trying there should be seed forthcoming.

Some iris fanciers would like to have shorter spurias. Ben Hager has introduced 'Maritima Gem' (Hager '90) which is about 19" tall, from 'Clarke Cosgrove' X *I.maritima*; Eleanor McCown has produced two small whites with ruffles- 'Highline Snowflake' (McCown '91) out of a seedling of *I.halophila* crossed with 'Ruffled Canary' (McCown '70) and 'Spanish Lime' (McCown '91) from the same *I.halophila* seedling crossed with 'Pieces of Eight' (McCown '87). *I.halophila* having 44 chromosomes, its seedlings are a bit more fertile than those from species with 38 such as *I.demetrii, I.maritima, I.notha* and *I.pseudonotha.* I have gotten seedlings from 'Russian White' even though it isn't very fertile, but *I.klattii* has 44 chromosomes as do *I.carthaliniae* and *I.musulmanica.* Ben Hager has also used the former, getting vigorous hybrids with summer- green foliage. 'Neophyte' (Hager '64) is a good representation of the use of this species. In the 40 chromosome group we have *I.orientalis, I.monnieri* (possibly a hybrid), *I.crocea* (syn. *I.aurea)* and *I.xanthospuria* (commonly called 'Turkey Yellow') which have all been used quite extensively and are the parents of the hybrids that usually go dormant in the summer- I should add here that the farther north these are grown, the less likely they are to do this.

In summary, I feel that we have barely scratched the surface of what exists in the genes of the spuria species. they have already proven that they have a great potential as cut flowers, they can extend the iris season and are great accent plants in a landscape plan. Color variations have already been achieved with various bicolors, bitones and haloes. There may be the possibility of a pink spuria just as was achieved with TB's. We already have rose-colored varieties like 'Highline Coral' (McCown' 86). Walker Ferguson, one of our great pioneers in spuria hybridising, felt that a pink was possible when he bloomed seedlings out of 'Fireplace' (Ferguson '67). I would hope that more people would become interested in hybridising with the spuria species and their hybrids, I'm sure it will give them joy and much satisfaction to be there when the breaks come forth.

Dave Niswonger. The International Symposium: *'Gardening with Iris Species'* 1995.

AN ADAPTATION OF 'SOME APOGON IRIS HYBRIDS'

During the last 20 years I have tried to produce hybrids of horticultural interest in this field. It should be mentioned however that this didn't necessarily imply the use of pure species as would be preferable for purely scientific purposes, but, wherever possible, the use of selected species cultivars or advanced hybrids in their respective *Iris* groups. For an iris breeder looking for an interesting, but not overcrowded field of work, it becomes immediately apparent that most of the non-evaluated and interesting inter-specific or even inter-serial crosses either don't induce seed production or lead to sterile 'mules'; which may be beautiful, but in all cases resist the breeder's attempts to go on with them. From other fields of plant research it is known, however, that there is a principle way out of this frustrating situation. So, having learnt to convert Siberian Irises to the tetraploid state (due to the inspiring work of Dr. Currier McEwen), I started a program of colchicine treatment on germinating iris hybrid seedlings. It was the aim of this work to produce tetraploid and, hopefully, fertile inter-specific and inter-serial hybrids for breeding purposes and decorative use in the garden.

The following is a list of the hybrid groups grown with some added information concerning the success of colchicine treatments:

1) **Calsibe hybrids:** These are hybrids between irises from the Chinese Siberian sub-series (*chrysographes,* Simonet) and irises from the series *Californicae*. This hybrid group has been known for a long time ('Margot Holmes' won the English Dykes Medal in 1926). Crosses are normally made with the Siberian parent as the mother (pod) plant and yield moderate quantities of seed.

I have done about 20 colchicine conversions which all proved to be at least pollen fertile. Breeding of Tetra-Calsibes * is now in the 5th generation. Hundreds of beautiful seedlings in a wide range of colours have been grown, but their value as garden plants suffers in many cases from insufficient stiffness of the standards and stems. Therefore, only two varieties have been registered so far ('Starting Calsibe' and 'Timpcals'). Improved varieties from the last seedling generations are on the way to registration. Tetra-Calsibes have been crossed back to Tetra-Californicae and to Tetra-Chrysographes irises. Seedlings from the latter type of cross are vigorous plants with well branched, upright stems and flowers in a good spectrum of colours. This group I named 'Sibcal' hybrids (Registered: 'Berlin Sibcal').

2) **Sibtosa hybrids:** These are hybrids between the 28 chromosome Siberian sub-series and different forms of *I.setosa.* Hybrids of this type are known from the past too. Crosses are normally made with the Siberian parent as the mother and yield a good crop of seed.

Most of the twelve colchicine conversions obtained so far proved to be pollen and seed fertile. Breeding of Tetra- Sibtosas is now in the 3rd generation. Available colours are light and dark blue and pink-lavender. Sibtosa hybrids are excellent hardy garden plants with upright well branched stems and a high bud count. They seem to be more resistant to iris diseases than Siberian irises. the size of the flowers could still be improved (registered: 'Starting Sibtosa' and 'Northern Pink'). Tetra- Sibtosas have been crossed back to Tetra- Sibiricae and Tetra- Setosa varieties. Plants of the former type of cross are extremely vigorous (registered 'Three Quarters').

3) **Chrysata hybrids:** These are hybrids between irises from the Chrysographes sub-series of Siberians and forms of *I.lactea* from Series Ensatae. Crosses are again best made with the Siberian parent as the mother and normally yield a good crop of seed. Two of the three conversions obtained so far are pollen and seed fertile. Breeding is now in the third generation, but the colour range was restricted to yellowish-white hues until recently (registered: 'Starting Chrysata'). In the diploid range of these hybrids blue colours with interesting line patterns have occurred. The flowers of Chrysata hybrids have a pronounced perfume resembling some Primulas. Tetra- Sibtosas have been crossed with Tetra-Chrysographes and Tetra- Calsibe varieties.

4) **Versilaev hybrids:** These are hybrids between varieties of *I.versicolor* and varieties of *I.laevigata.* Crosses have mainly been made with the *I. versicolor* parent as the mother and have yielded a fair crop of often very small seeds.

Diploid Versilaev hybrids are known as a result of the work of Horinaka. Inspired by his results, I have grown many diploid Versilaev hybrids from different parent combinations. The resulting seedlings were all vigorous and free-flowering, but the colour range was restricted to variations of bluish-purple and a small number of grayish blues (registered: 'Berlin Versilaev'). I have obtained three different conversions of Versilaev hybrids which all proved fertile in both directions with enlarged flowers, and breeding is now in the third generation (registered: 'Starting Versilaev'). Many flowers of Tetra- Versilaevs have been pollinated with Tetra- Pseudacorus pollen, but only one seedling- unflowered as yet- has been obtained.

The above hybrids were all made fertile by colchicine treatment. Other hybrids I have produced in my garden are:

5) Chrytosa hybrids: These are hybrids between irises from the Chrysographes sub series and forms of *I.setosa*. Crosses are best made with the Siberian parent as the mother again, and normally yield only one viable seed per ten flowers pollinated. Until now five plants of this hybrid type have been obtained from crosses made during the last four years. The small number of viable seeds has prevented colchicine treatments which normally require between 10 and 100 seedlings. Chrytosa hybrids are graceful, species- like plants with excellent branching being (so far) in shades of blue with some line patterns (registered: 'Berlin Chrytosa'). Seed capsules have often formed, but were always empty.

6) Sibcolor hybrids: These are hybrids between irises of the tetraploid Siberian group (4n=56 chr.) and forms of *I.versicolor*. A hybrid of this type was first produced by Artur Winkelmann of Germany, who has also shown that they can be fertile in both directions. Crosses are best made with the Siberian parent as the mother and normally yield only a few viable seeds. I have produced quite a number of these in colours from light blue to a deep and velvety blue-purple. The leaves are always rather wide.

7) Chrysmatica hybrids: These are hybrids between the Chrysographes sub-series and forms of *I.prismatica*. A hybrid of this type was first introduced by Samuel N. Norris. I have also grown two different ones to the flowering state. The Siberian parent was the mother again yielding a good crop of rather small hybrid seeds. A new batch of these was germinated in '94 and a number of survivors from colchicine treatment still exist. Chrysmatica hybrids may be interesting due to their extremely thin, wiry stems and the availability of the plicata pattern in *I.prismatica* forms.

8) Sevigata hybrids: These hybrids are between forms of *I. setosa* and forms of *I. laevigata*. I have grown only one chance seedling of this type and have been unable to produce more of them despite repeated attempts. The sterile plant is exactly midway between the parents and had good branching (registered: 'Berlin Sevigata'). It seems possible that the sterile *I. setosa* varieties collected in the wild in Japan are natural hybrids of this type.

9) Calsata hybrids (between Californicae and Ensatae) and

10) Caltosa hybrids (between Californicae and *I.setosa*) have both been grown by me, but were finally discarded due to their extremely low vigour and inability to flower under German conditions.

Some speculative hybrids which I consider might be worth trying are:

Tetra- Hexagonae x Tetra- Pseudacorus

(Sibiricae / chrysographes / Tripetalae) x *I.ruthenica*.

I.versicolor x Tetra- Chrysographes

Tetra- Hexagonae x Tetra- Chrysographes

I.versicolor x (*I.setosa* / Tetra- Setosa)

I.spuria cultivars x Tetra- Graminea

* ***Editorial note:*** The word "Tetra" implies a tetraploid state (i. e. doubling of the normal, diploid or 2n, condition). This doubling of chromosomes can only be confirmed by the actual counting of chromosomes under a microscope. Larger, physical clues such as increased substance, and changes in shape of pollen and other floral parts, have been shown to be coincident with tetraploidy, but these are just associations and do not confirm actual tetraploidy.

The Author rejoins: With the exception of 'Two Worlds', a 28 chromosome x 40 chromosome Siberian Iris hybrid, none of my hybrids was chromosomes counted. However I have tried to confirm tetraploidy by planned crosses with other hybrids of accepted tetraploidy. This was successful in all cases where I had believed to produce a tetraploid from the above mentioned hybrid groups. 'Two Worlds', by the way, proved to be a triploid with 2 x 14 + 1 x 20 chromosomes. Tomas Tamberg. St Louis Symposium: *'Gardening with Iris Species'* 1995

AN ADAPTATION OF 'THE PROSPECTIVE PROGRAM ON INTERNATIONAL COLLECTIONS OF IRIS'

This symposium ought to become an active stimulus of collective works on the investigation and utilization of wild iris species. Available information on this problem is so great that it should be reflected in a special book- 'The Wild Irises of the World', containing the writings of many authors. At the present time many species- as a rule the most valuable- may disappear from the earth. We must hurry with solutions to the problem of their protection. We ought to complete a list of endangered iris species. Still extant in the wild are rarities that would be the most valuable of species housed in collections. I refer to such a group as 'super-rarities'. Before collection of them can begin without damage to their populations, it is necessary to identify their locations.

The question of preserving and reproducing such species in cultivation is very complex. Complete analysis of this problem was given in my article 'The 43rd Komarov Reading', the main points of which were reported in May '94 at the sitting of the Academic Council of the Komarov Botanical Institute. Long-term maintenance of wild species in cultivation is only successful when climatic, soil and ecological conditions in the site are similar to the native conditions. It is thus most necessary to define the regions where rarities- and especially 'super-rarities' can be cultivated. So, for most species of the onco and regelia groups such regions may be found in California, southern France, Israel (where we have already noted considerable reproduction of onco hybrids), Australia, Armenia, Georgia and Turkmenistan. Aside from the natural conditions, a very important role is played by the introducers, who succeed in the culture of these rarities with the help of agrotechnic methods. For example, the firm of Van Tubergen, many Dutch gardeners such as Van Eden and others such as McMurtrie.

The most valuable properties of species and their habitats are as a rule only discovered in the course of their cultivation. So, only one of the 5 populations of *I.albertii* immune to 'soft rot 'succeeded in adapting to our Iridarium. We can work with it in our northern climate. One population of *I.ensata* from Vladivostock allowed us to create the first totally hardy JI. At the present time there is great success with work on adaptive reactions in hybridising. We only have to concentrate such activities to master how to grow and thus protect rarities and super-rarities by cultivating them. In our active work with these subjects our collection of colour slides and pictures has been invaluable. We must think of how to make such collections as the one I have brought international. I think we must organize a 'Brain Centre' for botanists, hybridizers, amateur growers and horticulturists. We must determine state and private collections in which work with rarities has been done or may be done successfully. We must find the enthusiasts who are ready to take part in the preservation of such a valuable source of genotypes. These enthusiasts need to be prepared to search out these rare species and grow them. It is necessary to establish financial sources for these collecting trips and to stimulate interest. I have an agreement with five young enthusiasts from Russia, Kirgizia and Mongolia who are ready to take part in this. This is very complex work which needs financial support, for example- there is no collection in the world which has *I.winkleri*, a very valuable subject for hybridization with other micro-bulbous species. Collecting this in the highlands of Kirgizia and Uzbekistan is a very difficult task- I know this from my own experience.

Dr. Rodionenko

I would very much like to thank Dr. Waddick for making the above information available . Ed

NEWS FROM TSVETOVODSTVO

Three festive dates this year; Petr Fedorovich Gattenberger, veteran of the Great Patriotic War, self-styled 'iridophile' and Russia's senior iris grower, celebrates his 90th birthday; the 50th anniversary of victory and the 30th of this enthusiasm for irises. He is interested in everything about his favourite flower- refinements of cultivation; the cultural and legendary history of this unique collection of Nature; the representation of it by mankind. A little room in the Moscow flat of the amiable Gattenberger family is full of books on irises and drawings and photographs of them. Even the window curtains and the glass panel of the door show them. Petr Fedorovich divides the year sharply into 'summer' and 'winter'. Although his plants die back in winter, for their solicitous possessor this is a busy time. Observations need to be generalised and conclusions drawn, while letters need to be exchanged with many iris growing friends and scientific institutions. Connections with gardeners in different regions of the country let Petr Fodorovich 'keep his hands on irises'- to collate data on the propagation of different varieties, their flowering and- a main problem with iris growing- their winter-hardiness.

In early spring, before the snow has gone, Petr Fedorovich goes out to Goretov, in the Mohaisk district of the Moscow area, where in 1958 he planted in a suburban garden his first 8 varieties. He waits with growing impatience for the time when he will be able to get to his favourite plants, which are already calling for attention. Soon begins the best period of his year- weeding, measuring growth, feeding- and in due course will arrive that amazing gift of irises; their flowers. This is how he has spent the 30 years of his retirement.

Always searching, he inspires those around him with his ideas. How interesting to plant a collection of irises, according to height, time of flowering, colour. Now he is actively compiling a data-bank of the species and cultivars of irises growing in our country, both native and imported.

From 1965, when the iris section was founded, until 1978, P. F. Gattenberg remained its leader. From that time the members of the section have bit by bit collected literature and have, since 1967, staged an annual exhibition and published a bulletin- a chronicle of the section. In 1983 there appeared a cyclostyled handbook; 'Varieties of foreign-bred garden irises grown in the USSR.' Finally, in 1993, Petr Fedorovich produced at his own expense the book 'Garden Irises in Russia' with coloured illustrations. Since 1985 P. F. Gattenberger has belonged to the society of breeders- The Vavilov VOGIS.

NEW SPCNI CHECKLIST POLICY

We are now updating the entire *Check List of Pacific Coast Native Irises and Species* every year. The current issue, up-dated through 1994, has grown from the 48 pages in the 1990 Fourth Edition, to 57 pages, and new cultivars and information will add pages to the book each year. The current issues of this publication will be available from the Treasurer; Adele Lawyer, 4333 Oak Hill Road, Oakland, CA 94605, USA.

SPCNI *'Almanac'*

IRIS INFORMATION

Dr Currier McEwen's monograph *'The Siberian Iris'* is now out, he has - of course- covered everything noteworthy regarding sibiricas with the benefit of 40 years experience. I'm sure that a great many of us interested in this section of the genus with be extremely grateful to him for undertaking such an immense task.

The Lindley Library have kindly informed me that they will soon hold the only complete set of the AIS's Japanese Group's *'Review'* available in Europe. They are open to the public 9.30am until 5.30 pm Monday to Friday, their address is; 80 Vincent Square, London, SW1P 2PE and their direct 'phone line is- 0171 821 3050.

Those of you with modems will be delighted to know that there is iris 'e'-mail available on the Iris L mailing list. Britain's only subscriber has generously offered to write an article on the joys of this, but those of you too desperate to wait, please write to me if you'd like further information. Ed

The BIS have produced a new series of cultivation booklets; 'Irises in Your Garden' part 1 Bearded Irises and part 2 Beardless Irises. £1.25 + postage from Mr. Neville Watkins, 31 Larkfield Road, Farnham, Surrey, GU9 7DB. We'd be very grateful for any feed-back on these from members.

White berries of *I. foetidissima* can be obtained from Goldbrook Plants, Hoxne, Eye, Suffolk 1P21 5AN, and yellow berries from Four Seasons, Hillhouse Farm, Cheney's Lane, Forncett St. Mary, Norwich NR16 1JT. Bear in mind that the latter, kept in isolation, will breed true, but the white berries usually produce red ones, although Brian Mathew has a seedling with white berries, so it's worth keeping on trying.

Anne Blanco White

Jennnifer Hewitt has an article going into *'The Garden'* that should hopefully be in their June issue, complete with photos. If all those of you who belong to the RHS can tell me so, I can decide whether to put such articles in this or not.

M.A.S.S.Medley Friday June 14th- Sunday June 16th '96. Massachusetts, USA. There will be a show, garden visits and a silent plant auction, meals and, no doubt, lots of talk and discussion. Registration is $90 until April 15th, $110 after that, this includes all meals and transport to gardens. Hotel: Westford Regency, 19 Littleton Road, Westford, MA 01886, tel (508)- 692-8200 or 1-800-543-7801; $72 single or double, $80 triple, $82 quadruple, + 9.7% tax. Refer to Iris Convention and reserve by May 17th for these rates. Registrar is Marty Schafer, 337 Acton Street, Carlisle, MA 01741; make cheques payable to ISM (Iris Society of Massachusetts). Don't forget that there is a possibility that the BIS $ account *may* have funds available for this sort of thing, contact the Treasurer, Clive Russell at 47 Station Street New Barnet, Herts EN5 IPR for details.

SJI Convention and Garden Tour, June 13-15,'96. Slide show, flower show, SJI board meeting, garden tours(inc. the Missouri Botanical Garden), judges training session, annual auction. Registration $85 including transportation to the tour gardens on 2 days, 2 dinners and a lunch. Headquarters; Best Western Westport Park Hotel, 2434 Old Dorsett Road, Maryland Heights, MO 63043. Tel: 314 291 8700 or 1-800-528-1234. (10 minute shuttle from the airport if you ring them and ask).$58 per night until May 31st, then $62. Again, mention that you're with the Convention.

ISA SPECIES AWARDS 1995

Louisiana:	'Bayou Mystique'	(M.Dunn)	*Siberian:*	'Contrast in Styles'	(Hollingworth)
	'Coup D'Etat'	(M.Dunn)		'Snow Prince'	(S.Tiffany)
	'Cherry Cup'	(R.Morgan)		'Vicki Ann'	(Warburton)
Spuria:	'Candle Lace'	(B.Jenkins)	*Californicae:*	'Night Editor'	(J.Ghio)
	'Sultan's Sash'	(O.Niswonger)		'Foothill Banner'	(L.Lawyer)
	'Sonoran Caballero'	(Wickencamp)		'Los Californio'	(J.Ghio)

Iris Society of Australia. New South Wales Region Newsletter. February 1996

WISLEY TRIAL OF JAPANESE IRIS 1995

Award of Garden Merit (H4) Plants hardy throughout the British Isles

'Continuing Pleasure'(9) Raised & sent by Dr. Currier McEwen. 'Flying Tiger' (11) Raised by W.A.Payne, sent by Dr. McEwen
'Imperial Magic'(25) Raiser; Mrs.L.Marx. Sender; Wychwood Carp Farm. 'Katy Mendez'(2) Raised & sent by Dr. McEwen
'Rose Queen'(15) Sent by Mr.S.Linnegar. 'Southern Son'(13) Raised & sent by Dr. McEwen.
'Variegata'(31) Sent by Mr.H.R.Jeffs. (Bracketed number after entry is that under which it was grown in the trial).

Trials Office. R.H.S., Wisley

Philip Allery submitted seedling WY4 and' Virginia B'(Hazzard '74) which were both recommended for the above award, the former once it has an approved cultivar name. Jennifer Hewitt has informed him that his proposed 'Aldridge Prelude' will be acceptable. The description of the latter in the 1979 check list includes a narrow white border but Clarence Mahan advised Philip that this is normally invisible and that he considers it one of Hazzard's best introductions. With this confirmed description the matter can go ahead.

REGRETTED RETRACTIONS.

1995-'96 Seed Distribution List- Tripetalae- no.77. **?*I.hookeri* c. Pakistan 1994, HLMS 940491.** These seeds are probably forms of *I.lactea*. By the time the collectors had been able to check them with herbarium material, they had been let loose under the wrong name. We all regret the mistake, but *I.lactea* has much to commend it and the seedlings are well worth growing on.

Anne Blanco White

The seed I sent to the BIS last year as 2n=40 chrysographes plicatas is probably sibirica seed instead. I sent a photo to Dr. Tamberg and that was his conclusion. I do apologise. Ed

Mr. J.P.C Whittaker of Rhu has admitted, rather bravely, to a mistake in his article in the last Newsletter. Having made several myself that went unremedied, he's in excellent company, here it is:

" I picked up one error in my small piece, checked my original, and offer my apologies, I wrote in the 4th para, "the soil here is slightly alkaline..." when I should have put slightly **ACID**. So in case you get any queries you can say that there was a gremlin between my brain and my hand."

Well, we're both new to this game, but this time round *I'm* blaming it all on the computer.

It's not a total retraction, but I'd like to keep Pat company, so; does anyone remember the pseuadacorus that did so badly loose in a full-sized barrel that I thought I might lose it and so potted it up and sat it half submerged instead, although it's supposed to grow happily in water? Well, it was a 3 litre pot and I had to rend it out this summer since the roots went quite mad. It has been romping away pot-free ever since. I've been told that other water irises get equally upset about being plunged, bare root, into vast quantities of water, and must admit that I recall a pseudacorus planting of Cy Bartlett's that was in a large and very shallow 'trough', where the water would have been warmer and more aerated than in my deep barrel. 'A little knowledge is a dangerous thing', they say, or was it 'there's one born every minute'..?

Ed

SOUTH OF WATFORD

This has been quite a year. The summer of 1994 was hot and dry enough in all conscience, but the autumn rains were more than generous and the spurias at least shot up about 2 feet before Christmas. It rained pretty enthusiastically over the winter too, but the spring was notable for narrow bands of icy winds at critical moments- doing alot of damage to flowering points. So much so, that a number of plants never flowered at all. The summer is still so fresh in all your minds that it is unnecessary to go into it again, but there are a couple of minor points worth emphasising. Those established plants in soils which had been well and truly saturated over winter survived in good condition even when they couldn't flower; on the other hand, some plants which I had thought would be safer moved into a flower bed do seem to have died. Clearly they were unable to follow the water down through the ground and would have been better left in their pots in a shady place. That was a pity because I would rather have kept them. The moral there is, that if in doubt, leave the planting out till later since if it turns out after all to be a cool summer they can go out then. The other moral is never to lift a suffering plant until the cool of the year. It may throw its leaves away, but it will protect its root system if it possibly can and when serious rains start again the plant will grow such leaves as it can manage. I have an unguicularis plant that saw fit to kill off all but one leaf. But it has been on that site for years and the rhizomes are layer on layer. Gradually, as the water has seeped in and the weather has cooled to its proper growing season, new leaves are popping up quite fast; shortly, I shall start feeding it again. Now *I. lazica* in a nice shady place at the foot of a plum tree is in splendid form.

There has been no time for hand pollinating this year and one thing I have noticed is that the closer the plant has been to the original species, the greater the likelihood of a seed set. Sadly, I had a nice white spuria from Dr. Rodionenko in flower for the first time, but there were no seeds. In general I'm against ants nests near the iris beds, but I think their total absence here, probably owing to the Yaffles, may be the answer. They are partial to the nectar at the petal bases and ramble around looking for other deposits. I'm sure they do most of the pollinating with *I. foetisdissima.*

However, displays at Wisley were splendid. A number of sibiricas which looked as though they were going to provide a miserable display recovered and showed off to good effect. The spurias had been replanted and so were left to their own devices. But the ensatas were

magnificent. The undersoil irrigation broke down and all the watering, when it could be done, had to be by hand held hoses. At first we thought that there was going to be a disaster, but by the next inspection the display was exemplary except for some plants which had been damaged by the frosts. I'm sure that much can be attributed to the scale of the original planting when the gardeners really did their best to provide the sort of bed in which these plants could flourish.

The plants at the foot of the Rockery, which were sent from Japan, also put on a good display. Gradually, the whole collection has been planted out and we are to be provided with a map of their distribution next year so that none shall be missed on the judging safaris. Most of these plants are in the 18" range and so eminently suitable for pots for small ponds. One plant suffered because the ducks would march over it when leaving or entering the water. Since I am quite unable to lay my hands on any of my judging notes at present I can't go into these plants in detail; I'll try and do better next year.

Here, though, a nasty problem is about to plague us. A new virus seems to have been identified in J.I.'s and it would be well to keep an eye on your plants. The appearance is of a long, sharply pointed mark widening gradually to the middle from each end. What we call a spindle shape- and how many of you have any real idea of what a spindle is these days? No matter, the important thing about this virus is that you can control it by good garden hygiene and regular replanting. It is only dangerous when plants are in bad condition. Well, that is true of most plant viruses: where a plant is stressed they will do their worst. So far, the vector is unidentified. There will be an article in the next Year Book giving more details.

Anne Blanco-White.

POTTED PACIFICAS TRAVEL TROUBLE-FREE

I have been a member of BIS for about four years and have become extremely interested in growing Pacific Coast, sibiricas, spurias and Japanese Irises as well as the odd species, e.g. *graminea*. I love these iris types much more than the bearded.

Just over a year ago we moved house at the end of September and this necessitated moving all my beloved irises. These were duly lifted and potted with the sibiricas dying down fairly rapidly but looking quite healthy. The plants that really surprised me most (and always have) were the Pacific Coasts'. I have always read that this particular group resent division and disturbance and so it was with much trepidation that I moved them. They seemed relatively at home in their pots and I was hoping that I could soon put them in their permanent positions. However, I soon discovered that my new garden consisted of 1/2" of topsoil over the thickest, stickiest yellow clay .The builders had obviously dumped the subsoil on top of the soil and it had remained there for about 15 years! I set about making new beds by removing the filthy stuff and improving the drainage in the now compacted topsoil. This was then finished off with new topsoil mixed with mushroom compost and other organic matter. The plants were not transferred to these new homes until May and I did not expect any flowers. However, the plants had other ideas, all of them flowering beautifully especially a pale cream \ white flowered plant that I do not have a name for although I think it may have been 'Canyon Snow'. This had about 20 flowers which all had two buds. An innominata type had 3 separate flowerings about three weeks apart and my three lilac-purple plants had two flowerings. I don't know whether this is usual for PCI's but I have always found them quite easy being able to split and replant them any time between spring and late summer.

Mrs. Haywood

I'm told that it's division rather than disturbance that's the problem with PCI's, but have noticed that out of 3 seedlings I potted up - unsplit- one September, only one looked any good the next summer. Ed

EXTREMES IN THE EAST

In the east we have certainly had some very extreme weather conditions this last year which made 1995 a real swings and roundabouts occasion. Firstly we had several months of rain which is very unusual for us, and I began to get very excited about the prospect of having plants which reached their normal proportions.

Our garden was open under the village open gardens day which meant that I did have to work very hard to try and get it ready. I went at it so frantically that I pulled something or other in my leg and spent two months unable to get about at all. I then received a most welcome visit from Robyn and John Brader from Australia. Robyn has one of the National Collections of iris species, but I'm afraid it was too early in the season for her to see anything of great interest here. All I could muster were a few early Pacificas. I'm sorry that her visit to me was short because if she had come a couple of weeks later I could have shown her Pacificas in abundance- in fact it was my best season ever. Alot of my new seedlings flowered and they were quite different from anything that I'd grown before. They had very rounded petals and tended to have very soft colours of old gold, palest tangerine and white. I acquired the seed in Australia in '88 but I don't know very much about it and I find that I would like to know more, especially whence the rounded petal comes. I do have the BIS book on Pacific Coast Iris, but if anybody can recommend any other literature on the subject of the development of the hybrids, I'd be very pleased to know.

I had hoped that my sibiricas would do well also because of the unaccustomed rain, but they didn't and several of them had died for no apparent reason. In July I had to have an eye operation which meant no bending down for a couple of months and I just had to watch the garden turn into a jungle. However, I did get one last present from the spring rain and that was all the spurias coming into flower when I had quite given up hope that they ever would. I bought them about ten years ago, sight unseen, and I have only had one or two of them flower. The sad thing is that by this time all the labels had perished and although I still had a planting plan, this couldn't be relied on because they had all wandered into each other over the years. I got great satisfaction from them but was quite saddened that I couldn't call them by their names. I have now devised a more substantial method of labelling by using my husband's disposable razors with a piece of paper bearing the name inside the blade protection cover. The only trouble is that it makes the garden rather unsightly because they are bright orange. I have been scouring the shops unsuccessfully trying to get them in green.

Of course, what happened next happened to us all. The drought, and me with a fairly recently fitted water meter. I can end on a cheerful note though, the water bill was not so very different to pre-meter days. I know that we have a slight reduction because we have a septic tank, but I think most households of one or two people would find their bills much less with a meter, even in a drought. We still hadn't had much rain at all by January so I don't anticipate a good 1996, but I send my very best wishes to everybody else for a really good forthcoming season.

Shirley Ryder

IN THE FOOTSTEPS OF PRZHEVALSKII

The nursery rhyme 'Here we go round the mulberry bush' never meant much to me. However, whenever I hear the word 'mulberry' now I think of the trees lining the streets of almost all the towns and villages of Kazakhstan and Kirghizstan, and picking the sweet, juicy black fruits as I walked by.

To find Kazakhstan on a map, look at the mass of Asia, go up a bit from India, left a bit from China, and that large empty looking space is Kazakhstan. It lies between the steppes of western Siberia and the high mountains of central Asia; it contains both these terrain's, as well as large desert areas and fertile river valleys. My current research interest is the history of Russian botany, so I hoped that it might also be furthered while there.

Anybody who has been to the former Soviet Union will have had experience of the delays caused by bureaucracy, and in that respect life in Kazakhstan has hardly changed. Although I spent a month all told in the country, much of that time was taken up by waiting for visas, or simply queuing for train or bus tickets. The first delays eventually saw me the proud possessor of a Kirghiz visa to visit that tiny mountainous republic. Leaving Almaty, the capital of Kazakhstan, which used to be known as Alma Ata, the coach travelled south-west through the foothills of the Tien Shan Mountains to the capital of Kirghizstan, Bishkek, or what used to be called Frunze. from there we went eastwards into the mountains, and after something over twelve hours travelling, reached the small town of Chopanata on the northern shore of Lake Issyk Kul. The journey had been exhausting; no air conditioning or hostess service, and the outside temperature in the 30's- Centigrade, that is. I dread to think what the inside temperature was. The journey was broken at a series of caravanserais, where an intrepid traveller with an iron constitution could sample local delicacies such as shashlik, manty, or koumiss. To get over the heat exhaustion the thought of a picnic supper on the beach was attractive; luckily we'd more or less finished eating when the wind off the lake- or is it an inland sea?- whipped up the most fantastic thunderstorm, and forced a rapid retreat to our beds.

The following morning, after a quick wash at the stand-pipe supplying the cattle trough, it was onto the local bus for the trip around the lake, and some six hours and two buses later, we arrived at Prystina on the south shore of the lake, and entered the grounds of the Przhevalskii Museum. In the 1870's and 1880's Nikolai Mikhailovich Przhevalskii was perhaps the most famous Russian, as a result of his pioneering journeys through Central Asia, then unknown in Europe. For gardeners the main interest is the plants that he discovered and introduced to cultivation. On his fourth journey into China and Tibet Przhevalskii was taken ill near Tashkent in Uzbekistan and eventually died near Lake Issyk Kul, and was buried on the southern shore. Later a monument was built alongside the simple grave, (now surrounded by the Museum grounds,) a ten foot high rock carved to give the impression of a mountain peak, surmounted by a huge bronze eagle, with wings outstretched. Standing at the end of a long straight avenue of firs against the background of the lake, it was an impressive sight. The museum contained memorabilia of his expeditions, and some replicas of the animals he discovered, including his horse, but little on the botanical side, except for some apparatus used for drying herbarium specimens. After a brief swim in the lake- which was quite salty, something that always surprises me when thousands of miles from any ocean- it was another half hours' bus ride to the nearest town, formerly called Przhevalsk, but now named Kara Kul, which is Kirghiz for Black Lake. While anyone's ego would be flattered to have a town named after one, I tend to feel that Przhevalskii would have hated the boring monotony of the Soviet apartment blocks, and the poverty of the older houses.

A week after returning to Almaty I travelled by overnight sleeper train to the south of Kazakhstan to Chimkent, one of the ancient Silk Road towns. The railway ran through the flat land at the foot of the Tien Shan, which is watered by rivers off the mountains, and has therefore always been a fertile area. With Russian and Soviet irrigation this area is today almost one continuous market garden, with fruit trees playing a major part in the production. The local apricots were well worthy of their reputation for excellence, having that flavour that only fruit eaten the day it is picked can have. Chimkent was rather a disappointment, a modern Soviet city, just like a hundred others that can be found anywhere from the Baltic to the Pacific. There seemed to be little of historic interest, although the local museum had some fine examples of artefacts covering a period of many thousands of years. The museum guide still complained that scientists in Leningrad had taken many local items, and were unwilling to return them- sounds rather a familiar story. One thing all the people of Chimkent thought worthy of a visit, though, was their 'Dendropark'- rather a nice Russian word for what we would call an arboretum. Just outside the city, it covered what seemed to be a vast area, although juggling with hectares and acres left me none the wiser about exact dimensions; it was far too big to be seen in the short time I had. It was arranged in botanical-geographical regions, with the trees and woody shrubs of a given area planted together. This effect was intensified by the fact that many dozens of the same species were planted together to form forest-like stands. The only drawback to my eye was the formal appearance that Soviet straight-line neatness had imposed some twenty odd years ago on the hundred year old park. It had been started under the patronage of General Korol'kov, the then Governor of Russian Turkestan, whose name is commemorated in the names of many plants, such as Exochorda korolkowii, a magnificent shrub which I saw in full bloom, and *I. korolkowii*, which I did not.

From Chimkent I travelled about a hundred miles north by taxi at a cost of some eight pounds- but it was shared between four of us! The journey ran through very flat land, which was getting hotter by the mile under the blue sky and strong sun. The two crops on either side of the road were endless expanses of wheat and cotton, irrigated by large steel pipes leading from the impressive Turkestan canal- the size of a river, not a British narrow waterway. Although I did not get to see the Aral Sea, the destination of most of the rivers flowing from the Tien Shan through Kazakhstan, I can now understand why it is shrinking and becoming saline; the profligate use of the irrigation water along the route was quite staggering. That being said, it was quite luxurious to stand under the waterfall from the end of a one foot diameter irrigation pipe after travelling in that heat. Our destination, the ancient town of Turkestan, with several historic monuments, lies on the edge of one of Kazakhstan's deserts, and the temperature was over forty in the shade, although there wasn't much of that! While the scenery along the route was rather monotonous, it came as rather a pleasant surprise now and again to see groups of two-humped Bactrian camels roaming freely along the sides of the road. Rather larger than the sheep here in Wales.

In the Soviet Union it was everyday practice to give bouquets of flowers on almost every conceivable occasion, so that flower sellers are to be seen at almost every bazaar or roadside market, however small. While I was in Almaty, the season for cultivated, bearded irises had finished, but I spoke to some of the sellers who were pointed out as having some of the best varieties. As growers for the cut flower trade, they did not collect seed for raising new varieties, which they told me they left to specialists.

They were also very unwilling to sell plants; the impression I got was that it was difficult to obtain good stock, so it was essential to hold on to what you had. My enquiries about native species were met with virtual incredulity. It does not seem to have occurred to them that anyone would be interested in growing wild plants. No one grew them commercially, nor was seed available. In fact, I was told that there were plenty of wild irises in the hills, and why didn't I go and dig them up? If I really wanted such things, they could go and dig them for me, did I want five or ten kilos, for about $10? I did not take them up on their offer, making the excuse that I would not be able to take them through customs; their solution to that was for me to claim the bulbs (I assume of Junos) were a snack for on the plane. I politely declined.

I visited the Central Botanic Garden on several occasions, and met several of the staff, who were most friendly and helpful. I was given some valuable information on my research subject, and several books on botany and agriculture in Kazakhstan. Like most state organizations in the former Soviet Union, the scientists of the Botanic Garden are labouring under severe financial problems, and much of the area of the garden was not as extensively planted as before. Previous centralization has also left them with some gaps in their library and herbarium, which they are trying to rectify. I was shown some of the newly-collected specimens from the nearby mountains, still brightly coloured in the process of drying.

The curator of the iris collection, Aleksandr Kokorov, showed me some of the irises in the garden, mainly regelias and bearded types, thriving in the hot dry conditions, but no sibiricas. Totally different to my garden, where sibiricas grow like weeds in this rainy area. It is interesting to struggle with some of the nomenclature difficulties; for example, *I. halophila*, which the Soviets considered a species, but seems to be considered only a spuria sub-species in the West. An interesting regelia is *I. iliensis*, whose species status in the West seems to be precarious.

Unfortunately for me by the end of June and the beginning of July all the irises had finished flowering, and some already had ripe seed. Aleksandr was kind enough to give me some seed, so it will be interesting to see what develops next year. He told me he was trying to build up a collection of modern TBs, and had also expressed a wish to join the BIS, I think our first member in Central Asia.

It was a fascinating trip, visiting areas that I had previously only read about. I cannot wait to go back, perhaps to visit the north-east of the country, to see Lake Zaisan in the Altai Mountains, another of Przhevalskii's stamping grounds. I'll also try and make it a little earlier in the season, to catch the irises in full bloom.

Dr. W. J. Bryce

IRISES AND SQUIRRELS

In 1995 we took a prolonged holiday around the USA -7707 miles in all. One of our favourite campsites was White Horse Lake in the Kaibab National Forest, which lies at the eastern end of the Grand Canyon National Park. It is divided into two parts and occupies 1,700,000 acres in total.

The Kaibab squirrel with its unmistakable black body and white bushy tail is found uniquely in the northern section of the forest. This is because its food is the Ponderosa pine which does not grow in the southern section. My daughter and I were lucky enough to see one whilst on a walk on one of the trails.

It's also only in this part of the Forest where, amongst a mass of other flowers such as forget-me-not, lupin, and Indian Paintbrush, grows the Kaibab Trail Iris. Unfortunately, at this time, I did not have my present interest in irises, and so was not aware of this. Something I have subsequently regretted. I hope, somewhat belatedly, to be able to admire them when the seedlings aquired from our Ed. recently, flower.

June Moore

WATERSIDE GARDEN DESIGN LTD

Bernie Sleeman and his team of landscape designers have a strong bias towards water and have a watergarden at their base with a complex planting of suitable genera complementing their Water Garden Centre. Barring 'unforeseen circumstances', they grow all they sell and wish to expand their stocks of moisture lovers, including irises, of which they have about 30, many of them *I.laevigata* hybrids. This, and the lure of knowledge, is why they have joined. They also intend to expand their demonstration plantings, using irises in far larger quantities. Along with the rest of us, they've been having trouble acquiring reliably identified stock and they want to be able to sell good quality hybrids rather than the 'mixed' stocks so common in the water garden trade. To further this aim, they are interested in obtaining divisions or seed of any of the following and their cultivars: I.laevigata, I.versicolor, I.sibirica, I.setosa, I.ensata, I. pseudacorus. They do at present have a few, so please contact Bernie before you split. I'm sure suitable remuneration will be forthcoming.

Ed

THE WATER GARDEN NURSERY

Mr. John Smith, a new member, wrote in reply to my solicitation last November, that I had "- the usual delusion that we go through a quiet phase, but this is the time I have visitors, take on construction work, re-organise my own 1 acre garden, clean out glass- houses etc., and promise (!) to do some home decorating!" So, since he's also sorting things out in preparation for a visitor from 'Practical Gardening' magazine, I'll excuse him from the traditional new members' introduction to their garden, especially since he kindly sent me a catalogue, which is half-way there for him anyway. Mr. Smith joined the SS&J primarily in the hope of getting his stock correctly labelled, he buys it in bare-root and we are , after all, all at the mercy of the supplier where names are concerned, so if anyone knows enough to help him sell them on under their correct names (where necessary) he'd be delighted. Being a devious sort, the possibility of payment in kind sprang to my mind if that's any incentive? One can but try. He grows an unbelievable amount of other plants for water or wet ground and also, for some doubtless masochistic reason, quite a number for dry and sunny areas too. Oh, and ferns... They stock chrysographes forms, Pacific Coast Hybrids, ensatas in variety, pseudacorus and p. bastardii, x robusta 'Gerald Darby', sanguinea, sibiricas in variety, I. fulvala, 'Holden Clough, and a few laevigatas and versicolors.

Ed

CULTURE FOR JAPANESE IRIS

No other iris is influenced to as great a degree by culture as is the Japanese Iris. Good culture will increase height, branching, flower size, and quantity and quality of bloom. No other factor will be a greater influence than <u>water</u> and its quality (pH and / or salts), especially up to bloom time. A lack of moisture will stunt the plants and produce miniature blooms but an abundance of <u>water and manure</u> can produce 4- 5' tall bloom stalks, while watering all summer will give better performance the next year too. JI's also need 6 hrs of full sun to bloom properly. (Please note- this is at the Michigan intensity. Ed). We want to say "wet" in spring and "moist" the rest of the year, *never* let the soil dry out. Depending on your soil, 1- 2" of water and/ or rain per week is recommended, older clumps needing more than new divisions. They thrive near water or where the water table is near the surface, as beside a stream or pond.

JI's prefer a rich soil with ample organic matter to help with water retention as well as adding nutrients. The soil pH should be 5.0 to 6.5 and the pH of the irrigation water must be monitored so that it doesn't raise the pH of the soil. A gradual yellowing of the leaves indicates a pH that is too high. This can be lowered by adding granular ferrous sulphate or agricultural sulphur.

Being heavy feeders, a liberal application of fertiliser in spring and just before and after bloom is beneficial, depending on your soil. They like nitrogen, which most soils are deficient in. Water soluble acid fertilisers (eg 'Miracid') act quickly but only last for 2- 3 weeks. Preparation of the bed with compost or manure will provide a good start, but do not use granular fertiliser until they are established. Be careful not to let your plants dry out after fertilising, or it will scorch their roots. Soil new to JI's will always give the best results, so try not to replant divisions where JI's have been growing for 3 or more years. Cut back 3/4 of the foliage, soak them in a bucket for up to 48 hrs and plant 2- 4 fan

divisions 2"-3" deep and 18"- 24" apart if you don't want them crowded in three years. **DO NOT** let rhizomes or roots dry out during transplanting. Planting them in a depression will help trap more moisture and this can be filled up with mulch in subsequent years as the new roots form above the old ones. When the crown has surfaced and the new roots are visible, it will be time to split and re-plant, which under good culture should be every 3-4 years. Your best bloom will be on 2-3 year old clumps. Transplanting can be done almost anytime from spring until fall provided that you **keep the transplants wet** for the rest of the year, and that the temperatures are below 90 F for a month afterwards. The best time for us is mid spring to just after bloom, but for you it will be a combination of your climate and your gardening practices! Hot and/ or dryer regions may have better luck with fall planting.

We recommend a 2-3" mulch all year round as it conserves moisture, keeps the soil cooler and reduces the 'heaving' of fall transplants. Remove the old foliage after the first frosts with a serrated knife and destroy it since it may contain borer eggs or foliage thrips. These two main pests of JI's can be controlled, where warranted, with systemic insecticides, of which we use 'Cygon'. Discuss this topic with other gardeners in your local iris club.

A condensation of the advice given in Ensata Gardens' 1996 catalogue. Ed.

GERMINATION INDOORS *JI's*

We have always (since 1982) germinated our Japanese and Siberian iris seed indoors, since some of our first experiments with this gave 80-100% germination. With favourable weather, we were planting 8-12" seedlings in May, with the first fan increases seen in July and in some crosses, 100% bloom the following year. Our most vigorous seedling produced eight bloom stalks on one plant! Our main reason is to gain one year on first bloom and thus on evaluation. Most important is the elimination of unworthy seedlings and freeing garden space for another crop- important with an annual planting of 100-1500 seedlings. Ripe pods are collected when starting to split, usually early Sept., and stored in paper envelopes (for no more than a month). *Shell* your seeds, destroying any worms (millipedes? nematodes? Ed). As soon as all seeds are collected, those of each cross should be wrapped in panty-hose material (maybe cheesecloth would do). Put these bundles in a large bowl, cover with water, weigh them down with a saucer placed on top and rinse and drain them daily for at least two weeks. This treatment is to remove the germination inhibitor present in the seed or the seed coat. Outdoors, the fall rains and melting snow in winter do the same thing over a 3-4 month period. After the final rinse, cover them with a 10% bleach solution (1 part bleach to 10 parts water) for 1/2 an hour, then pour off the solution and rinse quickly with water a couple of times. Cover the bowl with plastic-wrap and secure with a rubber band. DO NOT seal with an airtight lid. Another method is to transfer the tied bundles to a plastic bag secured with a 'twist-em'. The bleach treatment will reduce the mold population wanting to grow on the wet seeds during the next refrigeration (stratification) stage. The wet, rinsed bundles are now refrigerated for 12-14 weeks in their container. Less time will result in fewer seedlings. After 12 weeks they can be removed to room temperature (kept closed and moist). Although some may have germinated in the refrigerator, most will start after the 3rd day at room temperature, and this will improve if they are warmed to 90-100 degrees F. for 1/ 2- 1 hr. each day. You could set the covered bowl of bundles in another bowl containing hot water, this lets the temperature changes happen gradually. We fill the bowl of bundles with warm tap water, let them sit until they reach room temperature and then drain the water off until the next day's heat treatment.(TBs and hemerocallis are soaked and refrigerated in the same way, but DO NOT get the warm water treatment. Bearded irises germinate best at 55 degrees F.)

Once seeds start germinating, handle them as best suits you. This will depend on the number of seeds, the size of your house, and your spouse! At about the 5th or 6th day at room temperature, we open the bundles and remove the germinated seed to plastic cups half filled with wet sand- one cup for each cross- and cover with plastic-wrap. We repeat this process every other day for about a week as new seed germinates in the bundles. The non-germinated seed can be returned to the refrigerator for a minimum of two more weeks and then the room-temperature heating treatment repeated. With this system, only germinated seeds are planted and no resources are wasted on others. Pot the germinated seed whenever you want. We raise them on wet sand in their covered cups near a window. When we have enough 1" high green shoots, we transplant them with tweezers to trays filled with soil-less seedling mix potting compost. These are then set about 6" below florescent lights- ideally the bulbs should be about 1-2" above the shoot tips. We use cool white bulbs running 24 hrs a day and keep raising the lights as the plants grow until they're about 8-10" tall. Then we let the plants grow to the lights, mowing off the tips every couple of weeks as they grow to keep them within 10" of the lights. We fertilise every fortnight with a 'Miracid' solution; 1 teaspoon to 1 gallon.

Hopefully by mid May the danger of frost is past and they can be hardened off outside, spending their first week in the shade and gradually being moved to full sun. Being tender plants they will probably need watering every other day while outside, and every day when in full sun. Line them out in a rich organic soil and keep them watered all summer in their first year- and mulched. The next spring you will have bloom.

Adapted by me from the original article by John Coble & Bob Bauer.(AIS *Bulletin* No.297.April'95).Reprinted from '*Spectrum*' No. 27 July'95

LOOK-ALIKE CULTIVARS *JI's*

This is a note to gardeners checking up on the new iris that they have purchased, and to show judges that may be too quick to judge. We have one good customer that checks the identity of each new purchase as it blooms for the first time against the Checklist and catalog descriptions. That is what every good gardener should do, and then let the seller know if there is a mix-up.

Carol Kerr came to our garden with a blossom in hand from what she received as 'Midnight Stars'. It bloomed right beside her clump of 'Purple Marlin', looked just like 'Purple Marlin', and she was concerned if we had made a mistake in digging and shipping. We took her blossom to the garden and started comparing. Her 'Midnight Stars' matched perfectly with ours. Then we went to 'Purple Marlin' and it also matched perfectly! Then we looked over the garden for other dark burgundy flowers and found 'Capaneus'. 'Midnight Stars also was a dead ringer for this, except 'Capaneus' did exhibit slightly more ruffling on the style arms. And we did find a few different purple markings down in the hafts to show that 'Midnight Stars' and 'Purple Marlin' were identifiably different. It sure was interesting to us to find such close coloring. Wonder if these three cultivars are just as close in color in other climate and soil conditions? It made us think how much alike they probably would look on the show bench in artificial light!

Another pair of iris that look just alike is 'Prairie Twilight' and 'Prairie Elf'. Stalks of the same length are nearly identical. In the garden the two cultivars are identifiable by their stature; 'Prairie Elf' usually blooms at 20-25" and "Prairie Twilight' blooms at 36-46". On the show bench, 'Prairie Elf' looks like an under-grown 'Prairie Twilight'.

We discovered another set of look-alikes in '93 when we were looking for the J.I. with best blue coloring, using the R.H.S. color charts. The following five cultivars have subtle color differences in the garden, and we only suspect that they would probably look alike on the show bench:

'Distant Echo'- nearly indistinguishable from 'Parry Valor' 'Prairie Chief'- darkest, dark styles, chartreuse signal.

'Evening Episode- most lavender looking of the five
'Joyous Youth'- lightest blue of the five.
'Prairie Valor'- more lavender than above.

John Coble. *The Review'*. Vol 31. No. 1. Spring 1994.

MORE ON X VERSATAS AND BACKCROSSES

(All chromosome counts were done at the Institute of Botanical Gardens, a branch of the University of Montreal, through a Canadian government research grant. Mrs. White)

Too many so called inter-specific hybrids are circulating without proof to be from hybrid origin. One plant of each cross- pod should be analysed for chromosome count for DNA identification. The result not only gives you the assurance that you have a hybrid, but will help you to give them special care and to use the new hybrid for future crosses at their first blooming season. This may save a lot of time in development of new cultivars.

To clarify the question on Iris x versata crosses (I. versicolor x ensata), I will use the method of Fritz Kohlein for arranging chromosome sets.

I. X Versata 2n 66 = I.versicolor x ensata = 2n-108+ 24 = $\frac{54}{12}$ = 66

Iris x Versata has haploid or reduced set of chromosomes (gametes) of two species. If used as pollen or pod parent, they will give the whole combination of the two sets of chromosomes. Crosses between Versatas do not make any seeds and are infertile, but may be back crossed by I. versicolor, and, in rare cases, by I. ensata.

I. X Versata 2n 120 = I. X versata x I.versicolor = 2n-66 = 108= $\frac{66}{54}$ = 120

Backcrosses of these are fertile as male or female plants. If crossed by or with other Versata 2n 120, all will remain 2n 120 chromosomes. This strain easily crosses back by versicolor and ensata, and in most cases makes pods with fertile seed.

I. X ensata 2n 78 = I. X versata x ensata = 2n-66 + 24= $\frac{66}{12}$ = 78

(I. versicolor n54--- I. ensata 12 + 12 = 24 chromosomes.)
Vigorous plant, such hybrids rare, pod and pollen are sterile.

Iris XX Versicolor 2n 114 = I. versicolor x I. versicolor = 2n 120 + 108= $\frac{60}{54}$ = 114

Plants are less vigorous but have more flowers with good color variations and are generally fertile. If crossed back by I. versicolor, most seedlings will be I. versicolor 2n 108

I. XX Versata 2n 126 = I. X versicolor x I. X versata = 2n 120 + 66 = $\frac{60}{66}$ = 126

Vigorous plants with flowers of X versata pattern- flowers are bigger, but fewer. Flowers later than X. versata, moderately fertile, self fertile; seed gives hybrids similar to 2n 126

I. XX ensata 2n 72 = I. X versicolor x ensata 2n 120 + 24=$\frac{60}{12}$ = 72

This new strain is vigorous and moderately fertile, depending on cultivar used in breeding.

I. XX ensata 2n 84 = I. X versicolor x I. ensata (tetraploid) 2n 120 + 4n 48 = $\frac{60}{24}$= 84

Hybrids are vigorous, have not bloomed yet.(Spring '95. Ed)

I. X versi-x-virga 2n 96 = I. X versicolor x I. virginica var. shrevei 2n 72. 2n 120 + 72=$\frac{60}{36}$ = 96

Good growing, vigorous floriferous plants, moderately self fertile, may cross back by I. versicolor.

I. X Versi-V x X versicolor 2n 105 = I. versicolor x I. virginica var. shrevei= Versi-Vi x I. versicolor = (I. versicolor x ensata x versicolor) = 2n 90= 120=$\frac{45}{60}$ = 105

Good flowering hybrids with I. virginica pattern. Pods have few seeds.

DISTRIBUTIONS OF CHROMOSOMES IN IRIS VERSICOLOR X ENSATA HYBRIDS.

HYBRID	I.versicolor	ensata	virginica	TOTAL
X Versata	54	12		66
X Versicolor	108	12		120
X ensata	54	12+12		78
XX ensata	54	6+12		72
XXX ensata(+4n)	54	6+24		84
XX Versata	108	6+12		126
XX Versicolor	108	6		114
XXX Versicolor*	108	3		110 or + 1

X Versi-virga	54	6	36	96
X Versi-vi x X Versicolor	81	6	18	105

* Third backcross of I X Versata by I. versicolor. Distribution of chromosomes does not consider the fact that of I. versicolor being already a hybrid of I. virginica var. shrevei x I. setosa....

Tony Huber. *'The Review'*. Vol 32 No. I Spring 1995

(My apologies for the odd spacing in the above article, best I could manage I'm afraid. Ed)

WHENCE CAME THE FORTY-THIRD? ***BREVICAULIS***

Iris Series Hexagonae, known as Louisiana irises, consists of five species confined mainly to the southern US from Texas eastward into Florida as well as northward into Ohio and Mississippi river valleys. Of the five recognised species all but one have 42 somatic chromosomes in two sets of 21. A remaining species, *I.giganticaerulea*, has a somatic chromosome count of 44 in two sets of 22. This species does not figure further in this discussion and is not involved in any of the crosses concerning the subject matter.

In crosses between any of the 42 chromosome species each parent will contribute exactly half of its chromosomes to its gamete, i.e. 21 chromosomes. (the female gamete is known as an egg cell while the male gamete is known as a pollen grain). When fertilisation occurs these two gametes will be united to restore the full complement of 42 chromosomes. This is when seed formation begins. Aside from some rare genetic disaster, nature is quite adamant in maintaining this orderly progression. Early in this century a Mr.E.B.Williamson crossed *I.fulva* with *I.brevicaulis* in his Indiana iris garden to produce a lovely purple seedling which was named 'Dorothea K. Williamson'. This iris is very hardy and is still popular today. At about the same time W.R.Dykes was making similar crosses in England. These were early efforts at hybridising Louisiana irises. Much later in the century Jyotirmay Mitra, the late Dr.L.H.Randolph and his wife undertook the tedious task of making chromosome counts of iris species and cultivars. 'Dorothea K.Williamson' was found to have to have 43 chromosomes, not the 42 usual for such a hybrid! Yet, specimens of both parental species proved to have the normal count of 42. What was the origin of the single extra chromosome? Although there is little concern, the anomaly has always bothered the author. Some insisted that there were clones of *I.brevicaulis* with 44 chromosomes, yet the Randolph team was not successful in discovering such a type in tests. All specimens put to the test were the typical 42 chromosome forms. In the 1960's an Indiana resident turned up with a triploid form (Three sets of chromosomes) of *I.brevicaulis* having 66 chromosomes. This was dubbed 'Hexablue' and is not known to have been registered. Here it should be noted that a usual triploid form of this species would have only 63 chromosomes; i.e.21+21+21 or three haploid sets to total 63. However, a triploid of a 44 chromosome form of *I.brevicaulis* would have 66 chromosomes; i.e.22+22+22 or three haploid sets to amount to the needed 66 chromosomes.

A rhizome of 'Hexablue' was obtained from Dr.Randolph for experimentation. His advice was to make repeated pollinations on it with the 42 chromosome forms and attempt to flower seedlings in great numbers. This rhizome was lost in its first winter and Dr.Randolph's subsequent death prevented the aquisition of another. Now, there is a triploid *I.brevicaulis* named 'Triple Treat'. Possibly this and 'Hexablue' are one and the same. No information has been forthcoming on a chromosome count of 'Triple Treat'. By simple reasoning one may assume that Williamson's *I.brevicaulis* used to create 'Dorothea K. Williamson' was a 44 chromosome form rather than the commoner 42 chromosome type. This could account for the mysterious appearance of that 43rd chromosome. At present, there seems no other explanation. Is Indiana home to clones of 44 chromosome *I.brevicaulis* or is it mere coincidence?

It is known that an iris with an odd number of chromosomes cannot breed true. This seems specially so of 'Dorothea K.Williamson' when selfed. Since she is an F1 hybrid variations are to be expected in seedlings from selfing. This would be due to her hybrid nature. Selfed seedlings show a very wide range as to color, flower size, height, and a great difference in the size of floral segments. These extremes raise the question of whether or not that 43rd chromosome is capable of pairing with more than one other chromosome- it would seem so. A competent geneticist is needed to clarify this point. The assumption is that if the 43rd chromosome always pairs with only one other chromosome, or always remains unpaired, there would be greater consistency in the appearance of 'Dorothea K.Williamson' seedlings when selfed. There is little here to prompt a serious investigation but it certainly piques one's curiosity.

Charles Rhodes

Anne Blanco White tells me that I.'Hexablue' is apparently alternatively known as 'Triple Treat' or even 'Hexagon Blue'. It was registered in 1972 by Ben Hager for R.Welshans and is listed as a clone of *I.brevicaulis* of unknown origin. She is tolerably certain that it never reached this country, so anyone who knows of its whereabouts, under any name, please inform Mr. Rhodes as he'd like a piece for old times' sake. Ed.

A TETRAPLOID WILD OREGON IRIS ***PCI'S***

The doubling of chromosomes, or tetraploidy, can manifest itself in different ways, not all of them advantageous. The flower itself is often the most obvious indicator, as we know from having raised tetraploid pogon irises of all sizes, heights and color patterns. But often the complications in the genetic makeup of tetraploids is evidenced in lack of vigour and sterility. Here is the story of just such a 4N PCI.

Back in those days of the earliest interest in PCI's, a great wealth of enthusiasm was generated among the wildflower havens of the San Francisco Bay area, and those stricken by this wild irisitis gravitated around their mentor, Sydney B Mitchell, to celebrate annually with a double pot-luck; food for the stomach as well as the soul. All were invited to bring their most exciting iris finds, whether from the wild or from seedling beds. Everyone was aware that there were a number of species out there between the Pacific and the mountains, but it was not always clear which was which, and the books often seemed confusing. Identification and evaluation were the serious focus of these joyous gatherings. Fred De Forest (then from Petaluma) brought *I.douglasiana* sections; Bob Nourse (Ukiah) brought *I.macrosiphon* and *purdyi*; Julia Cates (from down the Peninsula) brought the new, golden *I.innominata*, an Oregon iris, and hybrids she'd raised from it. The Mitchell's garden at this time was almost awash with seedlings that sprouted everywhere. Often these showed superior quality- the beginnings of a garden strain. And, just as Professor Mitchell predicted, the tradition continued with seed and seedlings shared generously. Rose Mitchell, for instance, gave Jack Craig *carte blanche* to help himself to whatever he liked. These acquisitions were mated in later years with other wild irises gathered by a teenager in Fort Bragg, California; Elwood Moleseed. Some were also from another collector, Dr.Bowman. irises of the Craig-Moleseed strain are acknowledged as having contributed heavily to his own strain in turn by Joe Ghio.

Going back to those Iris Days at the Mitchell's, it was in about 1940 that Connie Hansen's Dusky Purple seedling knocked them all dead! It's phenomenal substance was suggestive of the shavings from a carpenter's wood plane! It had been grown from seed sent from the Willamette Valley Foothills in Oregon. Recognising that here was indeed something of unique character, Professor Mitchell sent it off to the campus Botany Lab. for a chromosome count, and it was reported back as having twice the expected number of all *Californicae* (2n=40) and that it was a tetraploid *I.douglasiana*. It was reported as such in the AIS Bulletin. When I met Connie Hansen some years later, she had moved from Perkeley to nearby Lafeyette and had taken this now-dwindling iris with her in a couple of big pots. She said that I was welcome to them if I would come and get them! In due time I drove to California, met the generous lady, had a good visit, and came away with the two pots, one of which remained in San Francisco for safe-keeping with Bill Martinez, who had been a participant in the last of those gatherings at the Mitchell's. The other pot came back to the Northwest with me, and was planted in the open Douglas fir woodland of my Bellevue garden, where it seemed happy,- flowering modestly, although it could never be described as flourishing. Each season I looked forward to this flowering amidst the mossy growth at the base of an old stump, to the broad-petalled flowers borne in pairs at the summit of staunch, foot high stalks, and to the coloring-sort of woodrose or brown-purple. Although they had what appeared to be good pollen, I never got any takes from it, nor did I get germination from the few, poorly-developed seed I was able to coax. Meanwhile, in San Francisco, Martinez broke his iris clump up, but lost all the divisions in a drought. In Bellevue (in sympathy) my plant began to decline in vitality, and in spite of *TLC* it was finally lost as well.

I now wonder whether this tetraploid PCI left an influence on the Mitchell seedlings of its day. Reflecting back on it, I remember those softly glowing flowers from staggered bracts,(not borne opposite on the summit of the stem) and that they had the shortest of perianth tubes. It was, of course, a miss-identified *I. tenax*!

A condensation of the article by B. LeRoy, SPCNI *'Almanac'* Fall 1995. Vol XXIV No.1

REMEMBERING MICHIGAN '95

It was still dark at 4am when I left Mundelein, Illinois for my 3 hr trip to Ron and Anna Mae Miller's in Michigan. My objective was to visit their garden and travel with them to Dr.Robert and Judy Hollingworth's in Williamstown and then back to Ensata Gardens. Upon arriving Anna Mae asked me to look over some seedlings she was trying to decide on. The clumps were very impressive; vigorous, long blooming and very healthy in shades of red, pink, lavender, wine, white and light yellow. She was having a tough time trying to decide which ones to keep and I hate to say, I was not much help. We arrived at the Hollingworth's later than I had anticipated and had only time for a short chat as both had to leave due to their son's wedding preparations. It was noon and the sun was baking us but Anna Mae and I searched the seedling rows as her smarter than us husband sat under a tree sipping a cool drink left him by our hosts.

The first one I liked was 90M88B5, a beautiful blue with a nice white edge, very vigorous. We found a row of yellow siberians, taking an instant liking to 93L2A9- darker falls, lighter standards and green veins. Those in this section were not as vigorous as Bob would have liked and crosses were in evidence trying to get that good color on more vigorous plants. I saw many fine seedlings from the '93 Siberian Iris Convention that I now bypassed looking for the '94 and '95 rows. We found another yellow section, and another beauty in 92K5B6 and 92 K5B7. It had wider standards of light yellow, and darker falls with a beautiful lighter edge(BIS Year Book 1995 pg. 80a shows a sibling).

After a great lunch treated by Ron we headed for Ensata Gardens where both Bob and John were in the garden with John using some PCI pollen (they bloomed inside in April) to pollinate his 40 chr. siberians that had just started blooming. The first siberian I came across was their 'Mesa Pearl', a '93 introduction , a lot nicer than I remembered. In fact their irrigation made most of their irises look better as water in the Midwest was very scarce. The best of all the very nice seedlings was S93N-1, with very large rose-pink falls, standards were shorter and wider in a white veined pink with styles in a pale blue and very wide. The next thing that caught my attention was their first blooms of a new cross of a 6 fall pink Japanese onto the versicolors 'Between the Lines'(Schafer/Sacks '91) and 'Candy Striper'(Warburton '91). This seedling bed was a mixture of pinks, whites and roses with similarities to both versicolors in evidence. The vigor, color, and placement of the flowers totally above the foliage was excellent. Started indoors in February '94 and planted out that May they had grown into large clumps before blooming for John and Bob in June '95. All 7 plants in this group had 6- 8 stalks. My excitedness over these new Versatas as John called them was only exceeded by the beaming John was doing. Just when I though I'd look a little on my own, Bob called attention to a flower that they had cut and brought onto their porch to enjoy this last bloom before the heat could get it. This was from a cross John had made (crossing a seedling from the Morgan Award winner 'Sultan's Ruby'-which has a tendency to double- x 'Shirley Pope'. This cross S89A-1 was crossed with a multi- petalled Japanese siberian 'Uzushio' and the result was a 24 petalled siberian. It was very impressive looking in a dark rich blue. Its number was S93G-3 and I was told that S93G-2 was even better. The second reason to retire to the porch was to partake of some of the cakes that my wife Anne had made for the trip, as we had not had a chance as yet to take a break . With John and Bob pouring the endless glasses of ice tea, Ron, Anna Mae, our hosts and myself sat and talked from siberians to Japanese to versicolors and back. The view of their irises was excellent and I think I stayed away from them too long. Just as I decided to get up, two more Irisarians from Illinois arrived; Francis Brenner and Marvin Rehnfield. More ice tea, more cake, more talk, a very pleasant ending to a very hot day.

Dale Hamblin

IRIS TYPHIFOLIA-A REVIEW **John Coble**

This is a summary of the 100 plants of I. typhifolia which we grew from seed. Since about 50% of these bloomed, it did allow us to observe great variance in blossoms and foliage. There was more variety in these plants than we expected to see in seed from a true species. I presume that the packet of seed we received was not the seed from one or two pods from one plant. The variation must be from one packet of seed taken from a bag of seed collected from many plants from various regions in NE China.

The following bloom notes were taken during May 1992, between May 15th, when the first plants started to bloom, and May 25th, when we started three consecutive nights of frosts which froze all remaining buds!

Foliage notes - September 10.

Overall (generally): Rows appear dark green, with larger (taller and wider foliage) plants being more blue-green. Rows average 24" tall: Tallest plants noted were 35-36" (a few leaves at 38"). Shortest plants (genetic or cultural?) were 12-18. Spiral twist to foliage NOT more pronounced than in most other garden Siberians. Overall effect is definitely thinner foliage: average is 6mm wide(most common). Widest was 12mm: smallest was 4mm (on the 12" plant). These measurements were taken about halfway up the leaves from the ground on healthy plants. Bloom notes are ONLY on those plants tagged to keep, that varied from the normal.

#2E White signal patch, medium blue. At 8" above ground. 5-10mm foliage

#5E White signal patch, darling. Total plant height 12". 2-4mm foliage at 15" above ground.

#19E Large bloom, signal lines not prominent, med. color with light halo. Had two stalks. Total ht. 29". 6-10 mm wide foliage at 15" above ground.
#14W Large, dark bloom. 27" tall; 6-9mm foliage at 15" above ground.
#10ammW Small branched (2) purple; small flower, nice. 24" tall; 4-6.5mm foliage at 10".
#13ammW Large bloom, light bkg. w/lines. 29" tall; 6-10mm wide at 15".

The variation in flowers was even greater than recorded here, among the normally blue-violet flowers were some in darker and lighter shades. Some had pronounced white signal areas and a couple caught our attention with almost no white signal (#14W). The plants with 12mm wide foliage looked like any other garden Siberians. In 1993 and 1994 the mature clumps were very floriferous, as would be expected for Siberian species(or good hybrids) on second and third year clumps. The genes for branching are present but not more than half the seedlings show this trait. The variations in form and color held as did the differences in foliage width. The whole plant with its narrow foliage has the garden effect(after bloom) of an upright, gracefully arching ornamental grass. By midsummer the arching leaves are three feet tall. Three plants have produced one or two repeat stalks about one month after the initial bloom. One plant has produced repeat stalks for three years; and one produced two repeat periods, each about 5 weeks apart. This seedling was crossed with several garden Siberians (like' Reprise'): the crosses were made on repeat stalks of both parents. In the row of five month old seedlings, the genetic effect could be seen in that most of the seedlings had narrower blue-green foliage. This year (1995) we shall see if there is genetic inheritance for early bloom, blue-violet dominance, signal color and size etc.

Bob Hollingworth.

Like quite a few other people we were eager to begin working with I. typhifolia when seed became available from China courtesy of Jim Waddick. In 1991 we lined out about 120 typhifolia seedlings. Over the last two years we have been observing the plants with interest, particularly because of the degree of variability between them, which gives the hybridise notions. Flower colors are all in the basic iris blue-purple range but vary in intensity from quite light to quite dark. In some cases a clear reddish tinge is present, especially in the styles. Some seedlings have quite striking white signal patches on the falls whereas others have no signal at all. Perhaps the greatest degree of variability occurs in the flower form. We have everything from fully pendant falls to partially flaring ones, to falls that are completely flaring. Branching is usually present with one branch being typical and two not unusual. There have been up to four flower buds per terminal, but two or three is typical. Flower stalks have been in the range of 26-36".

Very early growth and flower occurs, as expected, but a somewhat unexpected bonus has been a degree of rebloom. 92H4B9 has rebloomed in each of the last two years, though not profusely. The foliage shows relatively little variation,- all plants have the narrow upright spiralling foliage typically associated with this species.

Negatives? There seems to be a tendency for the foliage of some seedlings to collapse later in the summer and the flower stems have a tendency to 'goose-neck' at times. Some flowers are frankly undistinguished in form and color. Most of these seedlings have grown rapidly, but the ratio of flowers to foliage is not always high, at least so far. However, several plants have a strong combination of qualities, and if they continue to look good again this year, one or two may be registered next year.

'The Siberian' Summer 1995

UPDATE FROM JOHN COBLE: We're still concerned that the seed we received was pure species, we expected to see much more uniformity. Tamberg reviewed our slides of the variable bloom colors and forms and also questioned a pure species. Others have viewed the plants blooming in our garden and said that the variability was similar to that found in *I.versicolor*. The variability does allow one to select desirable differences in hybridising, but makes it difficult to write down a specific species description, which we humans like to do. Also a specific name! Dr. Rodionenko grows this species under the name *I.angustifolia*! Or are they the same?

Our '93 crosses using *typhifolia* bloomed very well in '95, some producing 5,6 and 7 stalks. The pod parents we used were: 'Creme Chantilly' (white), 'Springs Brook' (blue), and a seedling of 'Mesa Pearl' X 'Silver Illusion' (ruffled lavender pink). All three crosses were made both *on* and *from* repeat bloom stalks, and produced narrower foliage, more vigorous growth, and taller stalks (40"+) than all of our other siberian crosses. Bloom season was very early for siberians.

The 'Creme Chantilly' and 'Springs Brook' crosses produced all blue to blue-violet shades. The pink seedling cross gave 50% lavenders and 50% blue- violets, and 3 seedlings produced repeat bloom stalks in this first year. The flower form on all 3 crosses was good: not as full as the modern pod parents, but much improved over the species pollen parent. They would make very good garden plants with tall, branched stems and three blooms in the terminal. The only drawback to *typhifolia* in the landscape is a tendency for the tall foliage to fall over in late summer on mature clumps. Perhaps the plants require more moisture in summer? We will watch for this trait in the maturing hybrids. Future crosses with *typhifolia* should be made only onto plants with good landscape foliage.

STRATEGIES FOR HYBRIDISING *SIBIRICAS*

The seedlings that bloomed for the first time in the summer of 1992 have me very excited. One whole cross was so interesting that I saved every member. It is the next generation from my "Upright Styles" and that unusual feature has been passed on to some of its children. As hoped, the addition of 'Sailor's Fancy' to the mix has improved the overall shape of the flower, but to my surprise and delight a great number of color patterns have emerged-blue standards and red falls, silvery purple selfs and pastel blues with rose blushing. The first bloom of these and other seedlings has me thinking about hybridising. How can I best pursue the potential of these flowers? This is the goal of hybridising-to discover variation, explore it, nurture it and magnify it. In thinking about the future, I realise that it is helpful to look into the past and figure out how I got here. Also, I want to remember and examine all the advice I have heard from experienced hybridizers. So my winter has been filled with thoughts and conversations of outcrossing, phenotype breeding, line breeding, sib and backcrossing etc. In the process I have found some interesting patterns in my own breeding and discovered lots of possibilities for the future of my seedlings.

There are two hybridising tools which I have rejected and I think for good reason. The first is sowing bee pods. This may be an effective method of exploring species or near species, but is a very frustrating way to hybridize advanced generation hybrids like most named Siberians. The results give too little information. Half the history of the seedlings is missing, presenting serious limits to pursuing their future. If you are just starting out and want to grow seedlings, bee pods are one way to whet your appetite, but I encourage you to make hand pollinations. It will give your program much more power and give you many more possibilities to explore.

The second hybridising tool which I do not use is selfing- putting pollen from an iris onto itself. This procedure was highly recommended by some early hybridizers both as a method to determine immediately the pod and pollen fertility of a plant, and as a way to advance a breeding program by exaggerating a desired quality of the flower. I have only made a few self crosses but each time the results have been disappointing. The seeds sprouted poorly, grew weakly, and were florally uninteresting. So...what's left? Lots!

Outcrossing uses two unrelated parents to each other. The most extreme kind is an interspecies cross such as *I.sibirica* by the newly discovered *I.typhifolia*. However, it is also an outcross to mate two flowers that have basically different parentage- even if they both have a little 'White Swirl' in their backgrounds as most modern Siberians do. As an initial tool or strategy, outcrossing is useful. It is a place to start searching for new features or patterns or simply explore the possibilities of combining two irises, and can change the direction of a line. Last summer I noticed that 'Snow Prince',(Sarah Tiffney's albino *I.sibirica*) has, among other wonderful qualities, yellow buds, and I thought "Wouldn't it be great to have a flower like 'Snow 'Prince but in yellow. A little yellow butterfly!" So I made a number of outcrosses-'Snow Prince' x 'Butter and Sugar', 'Isabelle' and a number of yellow seedlings, and (for no reason) 'Spring's Brook'. Because the plants are so unrelated almost anything can result when they flower, but I would be looking for the smallest and yellowest seedlings to carry on the next generation. And if anything else promising shows up, I wouldn't ignore that either.

A variant of outcrossing is phenotype breeding, which ignores parentage and crosses flowers with similar features- light blue with light blue, pink with pink, large signals with large signals, rims with rims. I have done this with neither outstanding nor disastrous results. The results of outcrossing are not always positive. The flower forms of the parents may be so incompatible that the children have ugly, twisted, awkward or dull flowers. I crossed 'Snow Crest' with 'Spring's Brook' and 'Dancer's Fan' with 'Tealwood'. The seedlings grew like weeds and had great branching and bud count but the flowers were awful and boring. As a tool outcrossing is not for refining form or enhancing a particular feature. If a great signal, color or shape emerges from an outcross, a second outcross may well suffocate that new feature. At this point I suggest a different strategy- line breeding. The theory behind line breeding is that crossing irises with common ancestors has the potential to strengthen a desired feature by massing or organising the genes. Line breeding presents opportunities which with outcrossing are achieved mostly by luck. There are several approaches to line breeding - backcrossing, sibcrossing, and what I call cousin crossing - and this winter, for the first time, I am beginning to understand the different values of each.

Backcrossing is when an iris is crossed with its parent or grandparent. A good example of this is Bee Warburton's 'Atoll'. She outcrossed 'White Swirl' with 'Eric the Red', then crossed one of those seedlings back on to 'White Swirl', then took one of *those* seedlings, crossed it back onto 'White Swirl' and came up with 'Atoll'. 'White Swirl' is 'Atoll's mother, grandmother and great grandmother. In the process Bee created a marvellous base for future breeding. From 'White Swirl', 'Atoll' has the potential of passing on to its children large flowers, two branches, vigor and excellent plant habits. 'Atoll' also had a feature of its own - dark fall edges, perhaps the beginning of a future plicata. Bee did not continue to backcross 'Atoll' to 'White Swirl'. Instead she chose to outcross at this point. She had taken backcrossing as far as it needed to go.

Backcrossing may feel like a slow and incremental process but it can be very important preparation in the early part of a breeding program. Each backcross consolidates genetic material. The hybridiser's job is to shepherd that genetic material by choosing strong characteristics generation after generation. Vigor, foliage, branching, bud count, form, clear color, and substance are some of the many qualities that the hybridizer concentrates into a breeding base. It might feel like the hybridizer is standing still but this is illusory. At some point the base is strong enough and the hybridizer can begin to explore some of the variation that has appeared or has been consolidated. This is where the strength of the base is proven. All of the genetic material that has been organised by backcrossing is like a strong current that flows through the future generations. As new genetic elements are added to the line, the consistency of good form, substance and plant habits should remain, and even if lost in one generation should be easily recovered in the next. A good base can save alot of time and trouble. After building it up other line breeding strategies or outcrossing are possibilities.

The second type of line breeding is sibcrossing (sibling crossing) - mating children from the same cross, combining the best qualities of the original parents without either of them dominating. It may also produce variations. Bee Warburton's most successful use of 'Atoll' was to outcross it to 'Ruffled Velvet' and then take those children and embark on a long series of sibcrosses. 'George Henry' was one of these children and when crossed with a sibling (ARV 80-28) produced 'Spring's Brook', which inherited repeat bloom and double branching from 'George Henry' and large blue flowers from ARV 80-28.

I crossed 'Percheron' with' Butter and Sugar' hoping to start a new line of large yellow flowers. I knew yellow was unlikely to show up in the first batch of children and it didn't. But I did get two seedlings that had large fuzzy, soft-yellow signals. One was blue-violet, the other red-violet. They were interesting but far from gorgeous. I crossed them with each other. Up until then I had never made sibcrosses because I was afraid they would be like self-crosses and produce weak plants, but the results were good. One seedling was greenish yellow indicating that a recessive feature like 'Butter and Sugar's yellow coloring is recoverable in a sibcross. Most of them had stronger and larger soft (this is a correction. Ed) yellow signals showing that sibcrosses can strengthen small variations. The best thing that happened was a surprise. It was a single seedling that had pale purple falls with a visible layer of yellow under their whole surface. Naturally it was the one seedling in the cross that had some weaknesses in flower form and stalk strength. It has good breeding behind it and its children should improve quickly. I wonder if any other kind of cross could have given this result. I made a lot of sibcrosses this year on the strength of this one cross.

The last strategy for line breeding is what I call cousin crossing, and I discovered this winter that this is the strategy I use the most. It takes advantage of the best developments of a breeding program. "Cousins" may be all kinds of family relations. They could be aunts, first or second cousins, and even half-siblings or a combination of these. These relationships are a little more distant and can be a lot more complicated than parent-child or siblings. The parents of my seedlings, having come from such a well developed program as Bee's, are pretty closely related with three grandparents in common or many great-grandparents in common. My outstanding cross this year from 'Upright Styles' X 'Sailor's Fancy' is this kind of cousin cross. I traced its family tree and found 'Percheron' appearing as grandfather and great-grandmother. 'Atoll' and 'Ruffled Velvet' each appeared five times and 'White Swirl' made twenty two known appearances! I made the cross with 'Upright Styles' as my primary goal. I wanted to retain the beautiful, floretted stylearms but I also wanted to see them on a flower with nicer form and perhaps with a nicer signal ("Upright Styles" has narrow, twisted falls and a very bright green UU signal). So I crossed it with the flower with the best form in my breeding program- 'Sailor's Fancy'. The results were much more than I had anticipated. All the flowers were large and full with good form. Most had upright stylearms- at least to some degree. The signals are softer and lovely. In addition, however, the bitone-ness of 'Sailor's Fancy' appeared in a number of the seedlings AND a series of color combinations I have not seen before in Siberians.

I might have backcrossed 'Upright Styles' to 'Percheron' or 'Mad Magenta' or sibcrossed it. And that would have been one way to go. Instead I looked forward in my program to an iris with the same strong genetic base as 'Percheron' and 'Mad Magenta', but incorporating the improvements

of the last few years work. 'Sailor's Fancy' is a great advance in form over 'Percheron', 'Silver Rose', 'Mad Magenta' and 'Spring's Brook'. So instead of going back to the genetic base I went forward to the genetic base. In my mind, that is the key to cousin crossing- going forward. Of course, I didn't know that as clearly two and a half years ago when I made the cross as I do now. I was just going on instinct. Not every cousin cross I have made has this exciting a result, but the basic principle still flows through the results. It has the same benefits as other kinds of line breeding and yet, it also moves forward from the best products of current breeding- not sideways or sibways or backwards. I've learned a lot writing this article. All the breeding strategies are important and valuable throughout the life of the program. I do not intend to belittle the value of instinct in choosing parents for breeding. I still believe it is one of the most important elements. And clearly, this discussion of breeding strategies is just a beginning and is in no way definitive. But I feel it gives me more tools to work with to understand what I've been doing and where I'm going.

Condensed from the article by Marty Schafer. *'The Siberian Iris'.*

THROW AWAY YOUR COLCHICINE: LET MOTHER NATURE DO THE WORK ***SIBIRICAS***

Seedling 93L5A14 flowered for the first time this year. It was a pleasant light lavender bicolor scattered with darker color veins and flecks, a good, full, flaring form, nice ruffling and branching, but certainly not a showstopper. One reason only; this seedling ids unique in my experience in being a spontaneously-produced tetraploid. Clearly 93L5A14 is tetraploid; the flower substance is unusually strong and typically tetraploid in its features, the pollen is of tetraploid rather than diploid size, and crosses made with known tetraploids this year have produced seeds with 93L5A14 as both a pod and pollen parent, although obviously we haven't had a chance to observe any progeny yet.

The other 39 or so seedlings in this cross are typically diploid in character and, where crosses were made have set seed with other diploids. Both the parents of 93L5A14 are diploid, and this is not a cross that was treated with colchicine to induce tetraploidy. One last possibility remains- that this seedling belongs to another cross (either from tetraploid parents or colchicine) and was misplaced on transplanting the seedlings from their initial flats. I must confess that such things have happened in the past in our garden. However, this is quite unlikely in the case of 93L5A14. None of the potentially tetraploid crosses transplanted in this group of seedlings should have given light lilac flowers (and none did), and the cross leading to 93L5A14 should and did have several other seedlings with light lavender colors (although being diploid). Seedling 93L5A14 also looks in flower size, form and plant habit very like its diploid siblings, allowing for the usual changes that tetraploidy induces. It 'belongs' in this batch of seedlings and nowhere else.

So, although one can't be absolutely sure, it does seem highly likely that this seedling is a natural tetraploid. Such an event is quite unusual, but short of amazing. Although not reported in the Siberian irises before, (as far as I am aware), natural tetraploids occur in many plant species, including some of the bearded irises. What appears to be a natural tetraploid J.I.('Pink Mystery') has been described by Currier McEwen (*The Review*, 27(1):25-29). Natural tetraploidy presumably can arise if there is a failure in the reduction of chromosome number at one end of the cell divisions in the meristem. This must have occurred at an early division in the embryo with 93L5A14, since the plant appears to be fully tetraploid and not a chimera with mixed diploid and tetraploid parts. Although this event is not unprecedented in the world of irises, it does seem worthwhile recording it's happening in the Siberians. I wonder if anyone else has seen this?

Bob Hollingworth. *'The Siberian Iris'.* Fall 1995

UPDATE FROM BOB HOLLINGWORTH; Seeds from crosses of this natural tetraploid with established tets have since germinated and I have some vigorous seedlings, so this still further tends to confirm its tetraploidy. I'm still trying to figure out if anything I did could have induced it (some herbicides, e.g. 'Treflan' act like colchicine and could, in theory at least, make tets. 'in the field') but nothing seems to explain the appearance of this one tetraploid plant in a row of diploid seedlings, so I'm sticking with my story!

M.A.S.S. MEDLEY 1995....THE GUESTS

Last June I was in the enviable position of being able to fall out of bed and see just what was going on in the world of Siberians- the latest creations of established and novice hybridizers from Terry Aitken to John Wood. Just about every conceivable feature of Siberian irises was displayed by the convention guests. There were diploids and tetraploids, tall plants and short, large flowers and small, decorative styles, signals and rims, patterns and blends, and all of the usual Siberian colors as well as a few more. Teasing of things to come there were also hybrids of Siberians with other iris species. "Charming" is usually applied to species irises because the describer wants to say something nice about a plant he or she feels can't compare to the lush show put on by modern varieties. "Charming" does not apply to the species and near species guests in this convention. Try "fascinating" for Jennifer Hewitt's dainty and diminutive blue *I. sibirica* and "glorious" for Sarah Tiffney's 'Snow Prince' ('90), with its tall slender stems and perfect small cream flowers. Or "knock your socks off beautiful" for Art Cronin's 'Lorena Cronin'(R.'92) whose pattern of clean white and dark purple broke my heart every time I saw it. Modern hybrids have pretty small / large shoes to fill if they hope to carry on the tradition of these beautiful examples.

As was true of the guests in Michigan '93, color still seems to be the main focus for hybridizers. Reds were very well represented in our convention beds, Chan Fulton's seedling 7GT- 5 was the light end of the range with a large yellow signal and blue flash on the falls (to be introduced as 'Raspberry Rainbow '96), while Helsley's 'Wings of Night' ('91) was the most extreme representative of the dark side of red, being almost black. In between the extremes were flowers that were pretty dark, often decorated by blue flashes. Bauer- Coble- whose work on pinks was well demonstrated in Michigan- sent a deep wine- red seedling, S89N- 2, with the most intense blue areas below almost non- existent signals. This year the flowers were large and wide and the stems short, I liked it. Steve Varner's 'Illini Rose' (unregistered) was similar in color pattern, but a shade lighter, its flowers though, are among the widest I've ever seen with the falls overlapping at the shoulders. It was also the last Siberian to put up a repeat stalk in my garden this year. Jerry Wilhoit also sent a couple of red seedlings, his W- 2 had smallish medium red flowers with no signal on the tallest stalks in the garden. It and another red, 'Elinor Hewitt' (R.'92), were the most vigorous plants in the garden, each producing increase and stalks in abundance. They should produce fine shows next year.

Dr. Mc Garvey demonstrated that pink flowered Siberians are related to reds., but the pinks here are much more refined than in his day with better, clearer colors and more diversity of it. Pinks are separating into three types; close to true pink, lavender pink, and lavender pink with purple speckles. Anna Mae Miller's 'Cheery Lyn' ('91) and Katherine Steele's 'Legacy of love' ('95) are good examples of cleaner and more refined pinks. 'Pleasure's of May' (Schafer/ Sacks '95) looks quite pink in the garden, but on close examination is a smooth lavender pink with white standards and styles. Jim Cropland' s 88 - 12 is also lavender pink but the standards are flushed with color and the falls have wide, pale, almost white edges. Stahly's 93 - 34, 'At the Ballet' (Helsley r.'93), 'Sprinkles' (Bauer- Coble '94) and Schafer/Sacks's S88- 12- 2 are a shade bluer but light enough to be called pink. The color is quiet and subtle and they are all thoroughly sprinkled with fine purple dots. (Some of

the older pinks like 'Pink Haze (McGarvey '80) have some of this speckling but it is incomplete and distractingly random.) These plants had very wide, attractive flowers and bloomed for an exceptionally long time.

I was surprised by the lack of hybridizing interest in yellow, of which there were very few examples. Bob Hollingworth's 91A2B13 was the best with deep yellow falls that didn't fade in the worst summer heat. The styles and standards were light yellow too, pointing to the day when Siberians will have full yellow selfs. The flowers were smaller than many yellows, the shape was lovely- compact and wide, and the substance was sturdy. It was stunning. Stahly's 93- 15 was a very pale yellow with lots of lovely small ruffles on all flower parts. Schafer/ Sacks's S90- 31- 1 was a deep saturated yellow and S90- 31- 3 was much lighter, however, the latter was an exquisitely formed flower with good branching and plant habits and the former was just a good flower with troublesome plant habits, pointing out the delicious frustration of hybridizing yellows.

There were very few whites either. Tomas Tamberg's 'Viel Schnee'(r.'90) was a big flower with upright standards and flaring falls and was a clean, clear white with bright yellow hafts but no signal. It was a tetraploid with thick substance and large sweeping ruffles. Stahly's 93- 26 was creamy white, a large flower with good substance, flaring standards and arching, ruffled falls. Anna Mae Miller's 'Slightly Envious' '95 opened pale yellow and turned quickly white. It repeat bloomed heavily in '95- a complete surprise to her.

There were many blues, blue- violets and purples. Hollingworth's 90K1A17 was delightful, a blue- violet bitone/ near amoena, on the light side, though not as pale as 'Simple Gifts' (Hollingworth '94). The falls were gently arching, with very satisfying proportions of width and height, ruffling was small and understated and the signals were white. The vigor was good and the bloom stalks plentiful; a picture of cool, classic restraint. A similar color was Briscoe's seedling 81- 17- C, but where the Hollingworth flower had smooth, even color, this was veined and dappled with dark and light areas, creating a bright and lively looking flower. The shape reinforced this as flaring, unruffled falls with slightly uneven, curled up edges gave the flower an informal, energetic look. There were two unusual types of dappling among the blues. The first was Currier McEwen's T887 / 175, a tetraploid blue- violet with very little signal and greenish hafts. The standards and falls were brushed with medium veining in a swirling pattern, between the veins were areas of dark and light colors, leaving the impression of a sure, deft hand over canvas. Unique is hardly strong enough to describe the pattern in John White's 'Neat Trick' (r.'94)- violet with irregular splashes of pure white on standards and falls similar to Ensminger's famous border bearded 'Batik'. I wonder if John has any seedlings that show this pattern's further development. The bluest was Schafer / Sacks' S90- 13- 1. It had white spotting on the falls which were softened by a thin white rim. The form was somewhat narrow, but the color approached medium true blue. Two of Helsley's blue- violets were particularly noteworthy- 'Festival Prelude' ('92) and 'Carmen Jeanne' (r.'93). The former was in the medium color range but had a dappled central area in the fall surrounded by a dark solid rim. The stems were strong and it bloomed just after the earliest Siberians like 'Lavender Light' (McEwen '74) and 'Pleasures of May', this was one of my favourite guest irises. 'Carmen Jeanne' was dark, the blue counterpart of 'Wings of night', a wonderful, handsome color and a strong and sturdy plant. Another strong, dark flower was Hollingworth's 91Y1A1, but this had a yellow signal and bright yellow wire edge on the falls, slightly redder than 'Carmen Jeanne' it was very good-looking. With white wire edges were 'Wall St. Blues' (Aitken '95) and 'Silberkante' (Tamberg r.'93), both were huge flowered tetraploids. In style arms there were contrasting colors. Louise Bellamgamba's 'Rill' ('92) and Jim Copeland's 'Fisherman's Morning' had white or near white styles over coloured falls. The former's styles were strikingly white over blue- violet, neat and trim with no frills. In the latter, they were a blend with near white dominating to contrast subtly with the petals which were an indescribable blend of red, blue and white. This was special, with excellent shape and substance. Style arms were also showing in new positions and shapes as in Schafer / Sacks' S90- 60 seedlings. These were the first generation from 'Upright Styles' and their style arms were much enlarged with extra folds, feathers and ruffles, often of two or more colors contrasting with the petals, and held nearly vertically. These features gave the styles an importance nearly that of the falls. Signals are becoming newly important decoratively too,- no longer messy and distracting- now everything goes; none, small, large and strange. Bob Hollingworth led the way with his sunburst signals, 'Coronation Anthem'('90) and 'Over in Gloryland' ('93). 'Lake Keuka' (Borglum '94) had a bold blue blaze instead of a signal as did Hal Stahly's 0- 34- A although being a totally different seedling. Although the latter was hauntingly similar to *I.sibirica* the color pattern was strong and interesting.

In the Species Convention beds there was much to interest Siberian enthusiasts- 40 chr. Siberians, Cal- sibs, Sibcolors, Sibtosas (including tets.), and one Chrytosa. There were alot of non-Siberian species, including many beautiful and varied *I.pseudacorus* hybrids, Spurias, Laevigatas, Versicolors and more inter-species hybrids than you've probably imagined possible.

A condensation of the article by Marty Schafer in *'The Siberian Iris'* Fall '95

AUSTRALIAN NATIONAL SPECIES IRIS COLLECTION ON THE MOVE

Ms. Robyn Rorlach has held the collection since January '95 but had to move rather precipitously last summer from Yackandandah to 373 Lt. Bowen Drive, Bowen Mountain, New South Wales 2753. She assures me that the collection was unaffected by the upheaval, and describes herself as 'an iris mad plant nut', so it ought to be in good hands:

I have been planting out a seemingly endless array of vegetation of much diversity in very different conditions to my previous abode. Our property is nearly half an acre in size on the side of a fairly steep hill. I have no doubt that I will stay fit and there will be no reason to search for a gymnasium! Part of the land is still in native bush which is beginning to regenerate as the previous owner kept a horse. The wretched animal had chewed up a dendrobium orchid in the fork of one tree and was ring-barking some of the smaller trees. Its only saving grace(!) was the piles of manure which I badly need as the soil here is sandy and poor. However I can see much potential here and it will be interesting(to say the least)how well the irises grow here. I will need a year at least to assess the climate. I have some doubts whether pogon iris species, especially anything arillate, will prosper here. I could be in bother with those ultra-desirable Junos too, which I was just getting into. None of this year's seed has been planted either (1995, Ed) as it was pointless to attempt to move pots of seeds such a distance. Sydney is about 7 hours drive from Yakandandah. I will need to re-sort them to see if any need to be planted hastily. Most iris seed seem to have generally long viability which means most will be planted next autumn. Some I will direct sow into the ground. P.C.I.'s should adapt well here if given this treatment.(I hope). Pogon species will be placed in a seed bed where they will stay until maturity. They may need a built up bed with some sort of gravel mulch as humidity could be a problem at certain times of the year. Sydney is a sub-tropical climate but it is cooler up here in the lower mountains.

Before closing I must just mention that the bush fires did come to this area in 1994. All the homes here survived, but the fires came perilously close. There is native scrub all around now and the fires were only a couple of hundred feet away from the house! Our weekly nature walks take us through blackened trees and the evidence of the inferno is plain to see. However the wildflowers are returning better than ever. The native 'irises' or Pattersonia species are the biggest and best I've yet seen, in a gorgeous rich lavender-blue colour. I'm hoping to collect seeds

from these during the summer. There are all manner of interesting and unusual flora popping up everywhere.

Robyn Rorlach.

TRAVELS WITH IRISES - PART 1

Well, actually, the iris didn't travel- just I, but, I have tried to grow various iris in both eastern Canada and southern Australia. This article will mention some features of the garden that I had in the hills east of Montreal, Canada. These hills are a part of that range which extends from the Gasp near the mouth of the St. Lawrence River to Alabama in the southern USA. This long formation could be compared with Australia's Great Dividing Range which also sweeps down near the east coast before turning west at its southern end.

Where I had my garden- on an old farm- the soil was very rocky. Those not familiar with deep frosts would be surprised how stones and rocks keep rising to the surface, with a fresh crop appearing each spring as the ground thaws. Of course, any new rhizomes planted in the autumn would also be found lying on the surface and baking in the hot spring sun. As the soil was very soft and moist from the melting snow, the quickest remedy was to walk around stepping on any 'floaters'. At this time- in mid- April- little could be done until the soil had dried out. Depending on the rains (or late snows), this would usually happen by early May. The last day of frost was considered to come soon after the 24th of May, but even by then the soil was not warm enough for the hot-weather vegetable crops. Being in the hills to the east of the prevailing winds, there was ample rainfall, except for an occasional drought in August. August also often saw the first frost, if there was a full moon towards the end of the month. So you could be pretty sure of having three months frost-free. Fortunately, the garden was on an east-facing slope, and so it often escaped the early touches. Also, if one could get out from the city to cover the tender plants over-night, they could be kept alive for some months. Indeed, one year the weather stayed fine until the end of November, yet in another, I got caught in a storm on November 11th while digging gladiola bulbs, and was snow-bound for a few days.

Oh, the iris! I forgot! The bearded of course, from dwarf to tall, and the siberians (28Chr). How they enjoyed the cold and the wet (much better than here in warmer Melbourne). My favourite became the spuria. They had good foliage for the entire (if short) growing season. I tried lousianas- all colours, and they grew and bloomed well although far from their natural home. Of course, the increase was much less than it is in Australia, but I don't recall losing any to the weather either when dividing or moving them. 'Japanese' iris also did well, the wet springs' suited their needs. Other types that were successful were *pseudacorus* (which can be found naturalised), *cristata*, and some of the bulbous irises (Dutch, reticulatas, danfordiae). Also, on a nearby wet meadow, there was a large stand of the native *versicolor*. In those younger, more ignorant days, I didn't know of the many species and was content with the wealth of hybrids. I am sure that other evansias, (except maybe *lacustris*), any arils, and the Pacific Coast Iris would have quickly succumbed to the stresses of climate. I tried bucharica once, but it faded away and died. It is embarrassing to confess my ignorance of *missouriensis, laevigata, prismatica*, the 40 chr. siberians, and even *setosa* in those days. Obviously, *setosa* would have thrived, and so might some of the others. It would be interesting for someone to try some of these species in these conditions. After some years, we stopped going to the hills for the summer, and I moved a few selected plants to my suburban garden outside Montreal. By this time I had become disenchanted with the foliage of the tall-bearded iris, and left them behind. Some dwarfs and the *cristata* were transplanted into a rock garden on a slope at the front of our bungalow. In the back border, along with other perennials, I placed groups of siberian, spuria, Japanese, and louisiana, plus a clump of pseudacorus in the far corner. The climate here was somewhat milder, the frost -free season being perhaps a whole 2-4 weeks longer than in the hills. The garden had been developed over blue clay. The greatest scourge of iris growing in Northeast America is the larva of the iris borer moth. Only a systemic insecticide seemed to give any reasonable control. In the northern spring of 1990, we were visiting Australia for the first time, and the next May I spent in Vancouver, B.C. So, for two consecutive years, proper control was not administered. That second year (1991), the pseudacorus did not bloom well at all. When I dug it up, over 200 grubs were found feasting on the rhizomes. I hope that they enjoyed their last meal. There are good reasons for trying to control the spread of some beasties.

One last story. The aforementioned rock garden was on a slope at the south side of the driveway. It not only faced toward the north, but was also often shaded by a maple tree growing on the front lawn. Across the shared, double drive, my neighbours also had a rockery. Indeed, it was the beauty of this garden that encouraged me to build one on our side. We shared plants, and I gave them increases of my dwarf iris. That's right, the garden faced south in full sun, and MY IRIS thrived there and exploded into masses of colour each spring, while, across the drive, the same varieties whimpered in discontent. One might detest such neighbours except for two things; it wasn't their fault, and they were such nice people. But it did show what a difference a few feet could make. Grrr!

Arnold MacLaughlan, Australia

LEXINGTON'S METEROLOGICAL MISFITS

It has been almost a year since I have written to the group. I have a little 'new' news. It has been a somewhat odd year over here. The weather has been alternating from warm \ hot and very dry, to cool \ cold and very wet. During May and June, which are the peak iris months here, the weather was mild and very wet. We had 19.5 inches of rain in May and 18.6 in June. In July and August, when the seed pods mature, it was hot and dry, with many days getting over 100F. The nights were 80-85F. As a result, most of my seed pods aborted. I did manage to collect some spuria seeds that I sent in to the seed bank. This year, I did add two sibiricas, five spurias and the two hybrids 'Holden Clough' and 'Phil Edinger'. At this time (Nov. '95. Ed) they have good growth. Thinking of spurias, for the past few years I have sent in seeds from a yellow \ white spuria that I did not have the cultivar name for. This year, it has been identified as 'Ila Crawford'. This information might be useful to those who are raising seedlings from said seed.

Because of encouragement from some iris judges, I registered an I. pseudacorus seedling. It has a greenish-yellow bloom and stands about 16" tall in bloom. At maturity, the leaves stand 25", in moist or dryer soil conditions although I have not grown it in water, having no pond. I have given it the name 'Kentucky Moonbeam' since the flower color is similar to that of the full moon on a humid summer night. I don't have enough rhizomes to introduce it yet.

Are you familiar with the T.B. 'Cannington Bluebird'? I purchased it last year and have been pleased with it this year. It bloomed well this spring and again this fall. Two weeks ago a hard freeze (16F) stopped it. This week we had a snowfall that covered the ground for most of the day. We have had some more crazy weather this December. Last week, a dry cold front passed by. It then got very cold and very windy. Sunday morning it was down to -3 F. Today, after some morning rain, the afternoon was cloudy, calm and 51 F. One thing often said about the weather in Kentucky, is that if you don't like it, wait a minute. A look at older weather records reveals that the weather started going crazy in 1973, and has not straightened up since. No rain fell in October '73. '74-'76 were very wet. '77-'80, the winters were extremely cold, and this happened again in '83-'85, '89 and '94. We had a drought that lasted from late '79 until mid '88, when the summers were extremely hot. I once read that England was affected by a drought and heatwave around '75/'76, was this so? Beginning with '89, yearly rainfall has been normal to

above normal. Although my part of town averages about 73" per year, the soil is not very moisture retentive. If no rain falls after 10-12 days, I find myself watering flowers. This year, I had to water only twice. On the weekend of the 6th and 7th of January, we had the largest single storm snowfall in local history. It left 20" of snow. As the colder air behind the storm moved in, the temperature dropped as low as -3 F, although the record is -41 F set in '94. The subsequent snow- melt and several large rain events have caused flooding in some areas.

Mark. A. Cook. Lexington. USA

ABSENTMINDED IN THE OZARK'S

I write so much, I confess I do not remember whether I have ever bored your readers with an introductory article. I am the typical absent-minded professor type. I am constantly forgetting as to which iris organizations I have sent my dues, although my intent ids to belong to all of them. I suppose this shows a lack of discrimination, but I prefer to believe it has more to do with enthusiasm. Sometimes I wait months for a newsletter to arrive only to discover I forgot to pay. This is probably not a good sign for someone who just turned fifty. Lately I have been so absorbed with work on an iris book that my garden has suffered greatly. About four years ago my garden was at its peak. Then I grew about fifteen hundred different iris. Since this was spread through all the types of iris, many people visiting my garden assumed I specialised in whatever group was in bloom. I do admit that about half of these pants were MDB's and SDB's. Some years back, Jim Fry and myself tied at having the two most extensive collections of MDB's in the world (500 varieties). People rarely visit when the TB's are in bloom but I have over 100 of these classic iris. I hope that dispels the myth that I don't grow TB's. The last four years my garden has suffered many set-backs and I am now attempting to rebuild. In another year it should be worth visiting again. Of course I grow Japanese iris, Siberians and Spurias, but with a location that is at the top of an Ozark mountain ridge, I do better with those plants that tolerate dry conditions.

I studied plant ecology and taxonomy for a masters and a doctorate. I became disillusioned with my PhD when the ancient (25 years ago) computers I used were unable to process my data correctly. A glitch that most scientists were unaware of, and were publishing anyway, I suspect some still don't know. They were getting the results they expected , so they ignored the faulty statistics. Thus discouraged, I quit the academic world to become a salesman and gardener. I have simplified the story, the death of my father and my marriage also changed conditions. Sometimes I wish I had continued as a botanist. I mention this to explain my perverse interest in iris species. When I thought of myself as a taxonomist, I tended to dislike garden hybrids. After all, they don't fit keys and they complicate the view of 'natural' evolution. As a gardener of course I embraced them, and love whatever adds to my garden. Gardeners on the other hand seem to disrespect the species that have provided them with the hybrids they covet. My garden and my interests seem bent on reconciling these views. I find both types of plants interesting and rewarding, and I try to promote an interest in both. I take some pride in being the instigator behind the species awards offered by the AIS.

Lately I have been deeply concerned with the possible extinction of iris species and the disappearance of historic cultivars from our gardens. I was delighted when Dr. Rodionenko appeared at the Symposium of St. Louis that I hosted, with a proposal for saving some endangered species. I become very sad when I consider the limited prospects of our wild iris. Emotionally I would rather run off to pull weed in the garden, but somehow I try to contain my sadness and find small ways to stall the impending losses. After all if I provide a pleasant habitat for a few species in m y garden, I have been part of the solution and not part of the problem. I wish I could always claim success with every seed or plant I have tried. With each failure I console myself that I have learned a lesson. Even though I have a four acre property, most of it is oak-hickory forest. This means that in the half acre that receives sun, there is never enough room for all the plants I want to grow. I enjoy the display beds so much, I rarely hybridise because I can't find a place for the seedlings. I have many ideas for crosses I would like to try, but I will probably always be more of an enthusiast than a hybridizer. I started the local rock garden chapter and so I favour short plants. I keep hoping for short Spurias and Japanese but it seems the interest there is limited for most hybridizers.

Now you probably know more than you care to know about me and my garden. Before I started researching the iris checklist I would have frequent garden visitors. I hope that work will be completed soon , so I can restore the garden and the visits of friends. Every plantperson is welcome any time. In a year or so I hope to have something worth viewing.

Bob Pries.

THE 'WANTED' LIST

If anyone has spare pieces of *I.laevigata* cultivars they would be willing to sell, please would they let Anne Blanco White know?

Anyone who could spare a piece of the sibirica 'Charm of Finches', I'd be glad to do whatever's appropriate. Ed.

Request for 'oldies':- After being a TB grower and hybridizer in Nebraska (Midwest) I have steadily been growing less new TBs and more beardless since I moved to the Willamette Valley in Western Oregon. I still have a very good and critical collection of TBs that I grow and will release three new ones this year(1995. Ed). The older Siberians and Spurias that I am striving to find and grow must be healthy, as the garden here(with rare conifers, unusual shrubs, peonies etc.) has grown so large that I no longer have time to 'coddle' any variety. I am fascinated with the older cultivars and find their often 'not so grossly large' forms to be very interesting garden plants and often more aesthetically attractive in borders etc. I am also seeking these 'oldies' to keep many of them from becoming extinct- if they have any merit whatsoever as a good garden plant.

The following are the varieties of older Spurias that I am most actively seeking (others of merit that I may not be familiar with may also join the list if I become aware of them): The English origination's- 'Ticehurst' and 'Ellison' (P.Hutchison), 'Yellow Crest' (Pritchard), *I.spuria caerulea*(Wallace 1909), *I.spuria ochraleuca* (now *I.orientalis*), 'Warei' and 'Queen Victoria' (Barr), 'Monspur', 'Monaurea' and 'Ochraurea' (Foster). Other old Spurias that I am seeking include 'Laced Butterfly' and 'Fluted Opals' (Muhlestein USA) and 'White Lance' (Sanford USA), the Australian varieties 'Golden Egret'(C.J.Blyth), and 'Saida Charm', 'Sepik Delta', 'Warrimoo' and 'Jaquinot Bay' (all G. Loveridge). Finally, I'd like to find *ochraleuca* 'Sulphurea'(Goos & Koenemann, Germany). I am on the trail of a few older American released Spurias, but to date many remain elusive. Others in the Historical Iris Preservation Society here are looking for both old Spurias, Siberians, and diploid TBs. I hope you can guide me to a source of these. I believe it behoves all of us to try and save any old variety that is attractive, grows well, and maintains healthy foliage etc. in most any garden. (Oh, that all the moderns would too! Ed) If I find these sought after varieties, I will get them growing here and perhaps offer some for sale in my catalog; but I most assuredly would make them available to others in some form (trades etc.).

Roger Nelson, Iris Country, 6219 Topaz Street NE, Brooks OR 97305 USA

THE SEED BANK

ENSATAS

Ensata cultivars: Currier McEwen.

'Kirigamine' x bee 'Shui-no-Sode' x bee 'Yoakemae' x bee
'Vasily Alferon' x bee 'White Parachute' x 'Southern Son' Mixed.

SIBIRICAS

Sibirica cultivars Dale Hamblin, the descriptions are his-mostly. Ed
'Blue Brilliant': old medium blue bitone. Morgan Award '67.
'Blue Kaliedoscope': ruffled light blue, blended blotches of blues & violet..
'Chilled Wine': wine red and blue, Hager's.
'Demure Illini': (my favourite) Showdown selfed. I have 100 crosses with this.
'Desna Blue': seedlings are darker, feathered styles.
'Dewful': blue self, stylearms very light blue-very nice.
'Dreaming Yellow': McEwen's parent of 'Butter & Sugar'.
'Esther CDM': beautiful white
'George Henry': white, orange brown fall shoulders and signal.
'High Standards': runner up, Morgan Award '95, dark blue.
'Jaybird': beautiful blue.
'Lavender Bounty': McEwen ever-bloomer.
'Mabel Coday': gives shorter siberians, from 'Showdown' .Morgan-Wood medal, darkish violet-blue.
'Nigrescens': Van Hotte (1875).darker violet, towards bluish.
'Percherette': ruffled pink-toned violet self, deeper veining.
'Percheron': very large and beautiful, from Bee Warburton.
'Pink Haze': pinkest.
'Pink Sparkle': special looking pink from Ben Hager.
'Pirate Prince': no signal, purple.
'Rimouski': Preston's white, falls raise as flower fades.
'Rosebud Melody': Very large dark purple- overlapping falls.
'Shirley's Choice': white tetraploid.
'Shirley Pope': Velvety-standards red-purple, falls similar, white signal.
'Showdown': the breeder's choice, beautiful full wine-red.
'Sultan's Ruby': Morgan Award winner '94, very beautiful.
'Temper Tantrum': deep purplish red self, blue spot on falls.

Sibiricas; mixed miniatures Currier McEwen
diploids "
tetraploids. "

I.chrysographes var. rubella. (Possibly a hybrid>) Chris Rose.
ex I.delavayi x 'Didcot' seedlings. (Seedlings are dark purple.) Sue Pierce
I.sanguinea (ex selected seedling from 'Kamayama) Chris Rose

FOETIDISSIMAS:- I.foetidissima (ex orange berried bright yellow flowered form collected from Picos di Europa by R. Nutt) CR
SPURIAS:- Species: I.maritima.(spuria) CR
PSEUDACORUS:- I. pseudacorus. (ex 'Golden Queen' seedling with strongest signal markings) CR
SETOSAS:- I.setosa. (seed from 2 clones ex autumn '91 BIS distribution.) CR
VERSICOLORS:- I.versicolor(seed from 3 clones as above).

IRIDS:- Bellamcanda chinensis. Mr. Ian Smith.

MEMBERSHIP LIST: Corrections to the 1995 list.

Omissions: Dr. Bob Bauer and Mr John Coble, Ensata Gardens, 9823 E. Michigan Avenue, Galesburg, Michigan 49053, USA

Corrections: Herr Eberhard Schuster, D-19089 Augustenhof, GERMANY. (New zip code)
Mr.C.Lindner (not Lidner), Herserudvagen 62, 181 35 Lidingo, SWEDEN

Deletions: Mrs. Marilyn Neale, 33, Woodlands Avenue, Spilsby, Lincs. PE23 5EL
Mr.P.Setchell, 6, Elmcroft Road, North Kilworth, Lutterworth, Leics. LE17 6HX

NEW MEMBERS

Mr. Julian Bentley, 19 Kennington Road, Kennington, Oxford, Oxon. OX1 5NZ
Mrs. Julia Haywood, 6 Sunninghill Close, West Hallam, Ilkeston, Derbyshire DE7 6LS
Mrs Anne Watson, 'Ashfield Hellebores', Rarer Plants, Ashfield House, Austfield Lane, Monk Fryston, Leeds LS25 5EH
Mrs. O. A. Wells, 24 Westwood Road, Maidstone, Kent ME15 6BG
Membership resumed: Mr Andre Morency, 4 Lafontaine, Baie Comeau, Quebec, Canada.

P.E.Allery. Membership Secretary. 2nd February 1996