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Species Iris Group of North America

Spring, 1997 - Number 58

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President's Message

When I assumed the presidency of SIGNA, outgoing president Colin Rigby told me how the society pretty much ran itself and that is true. However, I wish to thank Colin for “filling in” in a significant way whenever people changed or dropped their positions of responsibility in the society. I had hoped that many more new people would volunteer their services, but I realize that isn't so simple as people are often committed to other things in addition to an interest in SIGNA. So in these last few President's Messages, I will be thanking people for running SIGNA and I hope it doesn't sound like an exclusive club as I have asked for new people to step forward.

Penny Aguirre is chair of the SIGNA test gardens, and for the first time we have an official list of gardens and I am certain it will continue to grow. It isn't easy to start something new, and Penny was left to fend for herself. I hope the core membership will consider signing up as interest in species is growing as evidenced by more and more people selling them. The test gardens will be important both for displaying and educating the public about species, but also a much-needed system for comparing and validating what we assume are named clones.

Jan Sacks makes my job particularly easy because she does everything well: SIGNA spending is recorded and accounted for in accordance with your Board's decisions and budget; as previous SIGNA Editor our publication was timely and of high quality; and finally as the Seed Exchange Chair she continued and built upon the outstanding 1995 exchange headed by Darrell Probst. The quality of the seed exchange is self evident. I also want to thank Darrell for his generous contributions of new *Iris* germplasm from his collecting trip to China. Our publication and the seed exchange are what so many of us value. These are the people we have to thank for tireless efforts.

ALATAVIA: A New Genus of Iridaceae

George Rodionenko - St. Petersburg, Russia

Genus *Alatavia* Rodionenko, gen. Nov. with the two species *A. kolpakowskiana* (Regel) Rodion. (*Iris kolpakowskiana* Regel in A.H.P. v:263, 1847, *A. winkleri* (Regel) Rodion. (*I. winkleri* Regel in A.H.P. VIII:677, 1884)

Latin diagnosis: Planta perennis, hervacea. Bulbus e squama unica magna, carnosa, tota concreta squamulis siccis, reticulatis vel paleiformis testa. Radices numerosae, tenues, quiete aestival emortuae. Folia angusta, canaliculata, et tunc in vaginam commune basi inclusa. Caulis florifer abortivus, uniflorus. Flos magnus, iridioides. Microsporaesphaericae, acolpatae. Capsula trivalvatim dehiscens.

Perennial, early flowering plant with large bulb 1.5-3 cm which is covered with reticular scales. Bulbs are tunicaceous with well developed fleshy scales, roots are numerous during growth period. Leaves are from 3-5 and very narrow at the base of the perianth tube. The flower stalk produces only one flower, the falls are medium in size. Stigma is single lobed. Pollen grains are

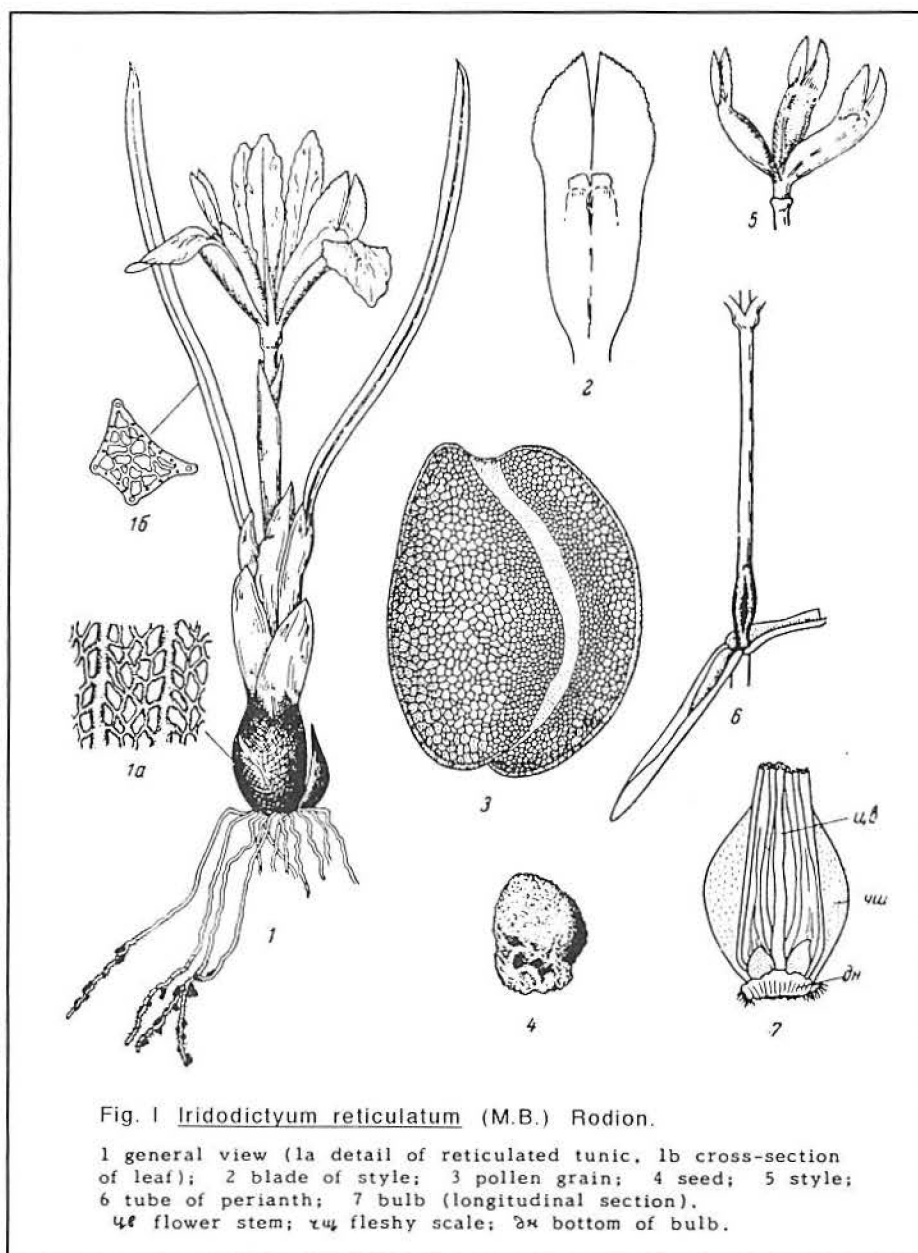


Fig. 1 *Iridodictyum reticulatum* (M.B.) Rodion.

1 general view (1a detail of reticulated tunic, 1b cross-section of leaf); 2 blade of style; 3 pollen grain; 4 seed; 5 style; 6 tube of perianth; 7 bulb (longitudinal section).
уа flower stem; уу fleshy scale; аа bottom of bulb.

sphaerical. Fruit is highly developed with many wrinkles.

The systematics of the genus is under consideration in its relationship to *Iridodictyum*. I had to attribute two species from the studies and place *Alatavia* in a separate genus because of several characteristics. *Alatavia* is characterised by another type of flower (see Fig. 1 and 2), which has a pistil dissected by 1/4 of its length, the stigma with a single lobe, and pollen is sphaerical on the outer layer. The difference between the species in the location of their areals is another consideration. Because of different ecological conditions the leaf structure is very different, too; elevations probably come into play in these structures. The species *Iridodictyum* grows under more severe weather conditions than does *Alatavia*.

On the Origin of the Genus Alatavia

There is no evidence of the origin of this genus. It is a consideration for much information is still lacking in research. However, Brian Mathew postulates in an article published in Revision subgen. *Hermodactyloides*, Edinburg Univ. press 1989:35, that there was a resemblance between the flowers of *A. kolpakowskiana* and some *Juno* species such as *J. nicolai* and *J. rosenbachiana* and that the leaf apparatus of *Alatavia*. Crocus species suggest that hybridization could have occurred between species of *Juno* and *Crocus*. Although the biological development of the parents are similar and because they are geographically related Mathew has suggested these reasons for his views.

However, I must state that there is no evolutionary or genetic relation between *Alatavia* and *Juno* species. But, hybridization does occur in nature and gives rise to new plants; however, more studies are needed in order to work out these ideas.

It should be noted that hybridization programs with *Iridodictyum* are needed for future with interested parties. In ontogenesis studies, and especially its early stages, the characteristics of *Alatavia* and *Iridodictyum* subgen. of *Hermodactyloides* are well observed.

Alatavia in Nature

There is little literature on the *Alatavia* species. There are several populations of *A. kolpakowskiana* along the north-western slopes of Zailiiskii Alatau mountain range. The name given to *Alatavia* is rendered from Alatau region. On several of the mountain ranges and undulating plains, *A. kolpakowskiana* is seen growing with *Crocus alatavicus*, *Tulipa alberti*, *Eremurus Olgae* and *E. robustus*. These ranges are rich in flora with mixed soils.

A. kolpakowskiana usually flowers at the end of March or early April and its seed capsules ripen at the end of May or early June. Bulb collections have taken place in the vicinity of Chimkent and near the small settlements of Sas-Tyube and Kas-Kasu in Kazakhstan.

We have preserved in our herbarium of our institute a large collection of specimen of previous years from areas in Kirgizia and Uzbekistan. In 1958 the botanist M.G. Popov observed *A. kolpakowskiana* near Tashkent, and especially in Kopetdak region.

A. winkleri is a very rare form of the *Alatavia* in Middle Asia. This form is considered as an endangered species and more attention must be given to it by our botanists. It was difficult for me to accept the fact that *A. winkleri* even existed in nature and was considered as a

synonym of *A. kolpakowskians*. After careful investigation of herbarium specimens in Russia and several at Tashkent University where different pattern are listed, I came to the conclusion that *A. winkleri* is in itself a species. It differs from *A. kolpakowskiana* by the bulb being scabious. Pollen grains are very rough. This species grows at 2,000-3,000 m.

A. winkleri was first grown near Moscow in 1899 by Olga Fedtchenko. This plant can be seen in the journal of Garden & Kitchen, Nr. 12 of 1899. The text states that the plant was grown by Mrs. Fedtchenko and that the plant survived two winter seasons by covering it with fir branches. At present this species is not found in any collections of the world.

Regions the Species are Located

1) Kirgizia, the region between the Alabuga and Urgent Rivers which are tributaries of the Naryn River -- the southern slopes of the mountain ranges at 2,800-3,800 m. above sea level, also the subalpine range near Sary-Tash.

2) Southern Kirgizia, near a collective farm at Kugart which is near the town of Kapka located in a subalpine meadow at 2,00-3,000 m. It can be found emerging from melting snow. Several flowering plants were collected 21 June, 1945.

3) Ferganski mountain range near Sary-Tash at 2,800 m. It was here that fruiting plants of *A. winkleri* were collected 18 July, 1962.

4) Uzbekistan, Tashkent region on the southern slopes along the Angren River which is a tributary of the Syr-Darya River. *A. winkleri* is found at 2,500 m. or more and blooms second half of May and into June.

5) At the confluence of the Alaskii and Ferganski mountain ranges near Alaskii, *A. winkleri* is seen on naked rock in little soil growing at 2,400-2,600m. This is the location where Dr. V. I. Tkachenko related to me that he saw these plants in 1977.

Cultural Information

We are able to discuss only on *A. kolpakowskiana* as *A. winkleri* is not available at this writing of this paper.

The literature cited is from a bulb book, London, 1981, that *A. kolpakowskiana* is difficult to grow. Our long time experience in growing *A. kolpakowskiana* has continued from 1953 to 1986, but studies during this period of time has proved to the contrary. We worked with two populations from the Chimkent and Alma-Ata districts. On several occasions we received bulbs from the wild and transplanted them at first in beds and later using an alpinarium style for growth. At first the plants grew, flowered and died after 2-3 years. In 1981 using the second method we succeeded in growing the plants. In the second year we observed flowering around May 10 to 15. The flowers had a strong aroma and varied in colour. The stalk reached 27 cm. Bulbs were larger than those in the wild because of culture care. Only one bulb survived the harsh winter of 1986. The same results were experienced by garden enthusiasts in St. Petersburg. The climes in the northern parts of Russia couldn't guarantee *A. kolpakowskiana* surviving except in greenhouse protection.

The experience of growing similar species under the ecological and soil conditions is always difficult. For example, *Iridodictyum winogradowii* collected by T.V. Shulkina in Bakuriary, Georgia, succeeded in vegetation, flowering and fruiting for two decades in St. Petersburg's Botanical Garden. I am convinced that *A. winkleri* will succeed like *I. winogradowii* has done.

A rather interesting conclusion from the firm of van Tubergen by Mr. M.H. Hoog characterised *I. kolpakowskiana* in a letter: "*I. kolpakowskiana* has grown very well here with bulbs reaching 8cm. in circumference."

In conclusion I am very sure that the genus *Alatavia* must be treated with more cultural work, even in our harsh weather conditions in St. Petersburg. Continued work should be carried on in hybridization between species and continued search for *A. winkleri* in the wild.

(We wish to thank Bob Ward, Little Rock, Arkansas and Jean Witt, Seattle, WA. for their help in preparing this article for publication. The illustrations were submitted with the article by Dr. Rodionenko and are from his The Genus Iris, BIS translation. Ed.)

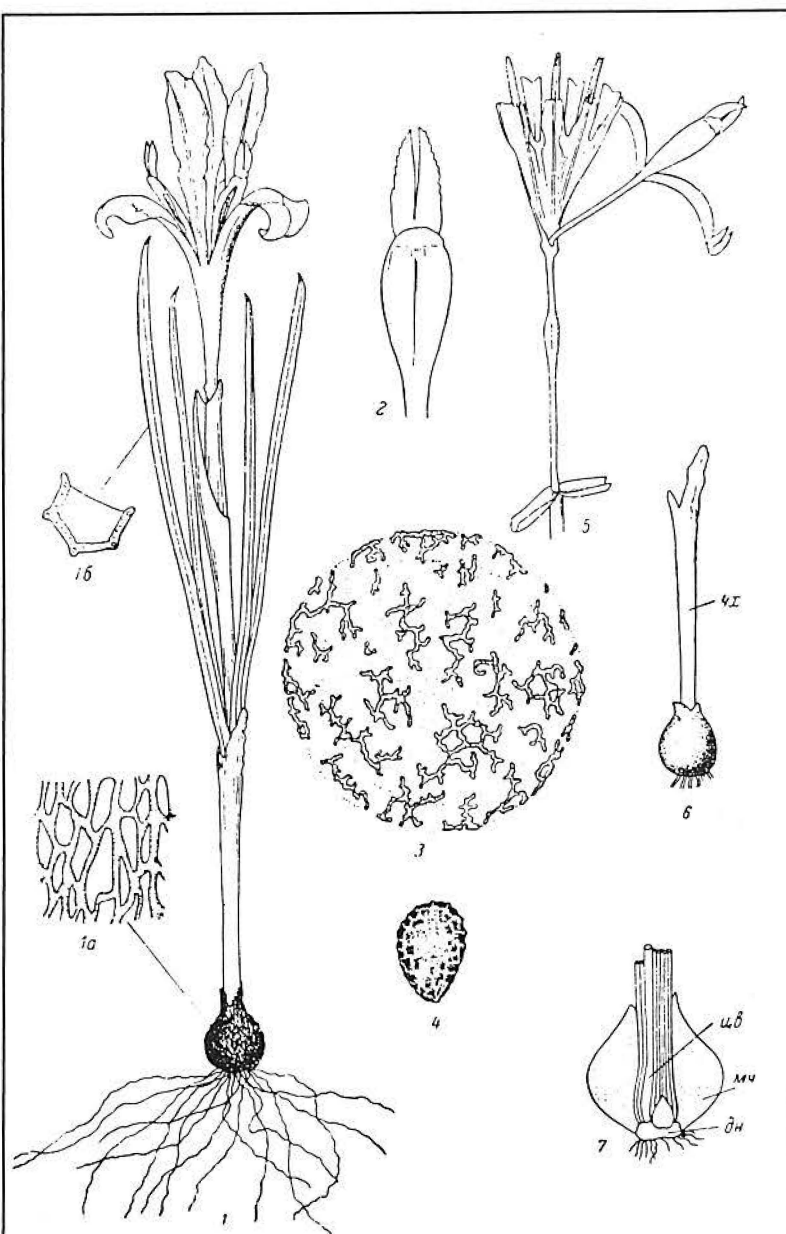


Fig. 11 *Alatavia kolpakowskianum* (Regal) Rodion.

1 general view (1a detail of reticulate tunic, 1b cross-section of leaf); 2 blade of style; 3 pollen grain; 4 seed; 5 detail of flower; 6 bulb without reticulate tunic; 7 longitudinal section of bulb. $\delta\delta$ flower stem; $\mu\mu$ fleshy scale; $\delta\delta$ base; $\gamma\gamma$ case of flower bud.

СНДЪ И ОГОРОДЪ

ПОДПИСКА ПРИНИМАЕТСЯ:
Въ Москвѣ: въ сѣмен-
номъ магаз.: „О. Ижмеръ
и сынъ“, Мясницкая, д.
Обидиной

Въ С.-Петербургѣ:
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Издание выходитъ 1-го
и 15-го числа каждого
мѣсяца.

ИЗДАНИЕ

РОССІЙСКАГО ОБЩЕСТВА ЛЮБИТЕЛЕЙ САДОВОДСТВА.

Подписная плата въ
годъ съ доставкой и пе-
ресылкой и съ приложе-
ніями ТРИ рубля.

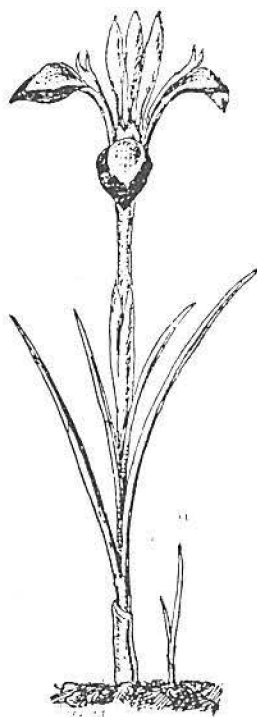
Всякаго рода статьи и
корреспонденціи, съ точ-
нымъ именемъ и адресомъ
автора, слѣдуетъ выси-
лать въ Москву, редакто-
ру В. К. Попандуло.

Москва, 15-е іюня.

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Голостебельный макъ, Напаверь нудикауле. (*Paraver nudicaule*).— Плодовое дерево и уходъ за нимъ. (Продолженіе).— На-
учныя основанія культуры орхидей. (Окончаніе).— Отчетъ о курсахъ садоводства на дачѣ Студенецъ за 1898 г. В. Г. Ба-
жаса.— Библиографія.— Русскія лекарственные растенія. Р.— Смясь.— Объявленія.

Ирисъ Винклера. *Iris Winkleri* Rgl.

Ирисъ Винклера открытъ въ Тур-
кестанѣ А. Регелемъ и названъ от-
цомъ его въ честь извѣстнаго бо-
таника, К. Ю. Винклера, который
25 лѣтъ работаетъ въ С.-Петербург-
скомъ Ботаническомъ Саду и такъ
много сдѣлалъ и, надо надѣяться,
еще сдѣлаетъ для изученія турке-
станской флоры. Въ гербаріи Спб.
Ботаническаго Сада есть только два
экземпляра этого растенія (третій—
безъ цвѣтка), по которымъ и сдѣ-
лано описаніе Регеля, помѣщенное
въ Трудахъ Спб. Бот. Сада, томъ
VIII, стр. 677. Въ культурѣ же этотъ
прелестный ирисъ появляется те-
перь, сколько мнѣ извѣстно, въ пер-
вый разъ. Прилагаемый рисунокъ
сдѣланъ по живому растенію, кото-
рое выведено изъ очень маленькихъ
луковицъ, собранныхъ мною въ Тур-
кестанѣ въ 1897 году, и цвѣло у
меня въ грунтѣ въ Можайскомъ
уѣздѣ въ первый разъ въ началѣ
апрѣля нынѣшняго года. Такъ какъ
оно уже двѣ зимы выдержало въ грунтѣ (въ
первый разъ безъ всякаго прикрытія, во вто-
рой—подъ слабымъ прикрытіемъ еловыми вѣт-
ками), то, очевидно, можетъ культивироваться



Ирисъ Винклера.

у насъ въ грунтѣ, а по своему не-
большому росту и изяществу цвѣ-
товъ очень пригодно для ранней вы-
гонки. Все растеніе не болѣе $\frac{1}{4}$ ар-
шина вышины и вполне согласуетъ-
ся съ описаніемъ Регеля, за исклю-
ченіемъ окраски: цвѣты его не про-
сто „синіе“, какъ могъ думать Ре-
гель по сухимъ экземплярамъ, а пе-
стрые; у нихъ 3 внутренніе листоч-
ка околоцвѣтника лиловые, а 3 на-
ружные — бархатисто-темновишне-
вые, съ рѣзко очерченнымъ бѣлымъ
пятномъ (бугромъ) посрединѣ, испе-
щеннымъ темно-вишневыми и мали-
новыми точками и полосками. Этотъ
рѣзкій контрастъ цвѣтовъ чрезвы-
чайно эффектенъ. Листья и влагали-
ща—голубоватозеленые, прикорне-
вой влагалищный листъ—бѣлый.

О. Федченко.

Ольино, Можайск. у.

23 мая 1899.

И к с о р ы.

Иксо́ры это кустарники изъ семейства
Мареновыхъ [Rubiaceae], обитающіе по боль-

Iris winkleri (Regal)

Translated by Nikolai Lemeshko, 1996

Iris winkleri was discovered by A. Regel in Turkestan and was given its name after the famous botanist K. Y. Windler, who has been working in St. Petersburg Botanical Garden for 25 years. K. Y. Windler has done quite a lot of investigating Turkestan's flora and, we hope, he will do even more in the future. St. Petersburg Botanical Garden Herbarium contains just two sample plants (a third one has no flowers) and they are the plants described by A. Regel in Transactions of St. Petersburg Botanical Garden, volume VIII, page 677. From what I know, I am describing here the first cultural sample of this lovely Iris. The accompanying drawing was made from a living plant which was grown by me from tiny bulbs. I collected those bulbs in Turkestan in 1897. The plant flowered for the first time in my garden near Mozaysk this year at the beginning of April. It has already survived two winters in the open soil (first winter it was not covered at all; second winter it was covered up with fir tree branches), so it obviously can be grown in our climate. It is very suitable for early spring cultivation because of its grace and small height. The whole plant is usually 20 cm or less in height and it completely matches the description made by A. Regel except in colouring. The flowers are not just "blue", as A. Regel thought describing dry samples, but multicoloured. The three inner petals (standards) of the flower are purple and the three outer petals (falls) are cherry-red with a clear-contoured white area in the middle. This area is dotted with deep red and crimson touches (dotting). Those contrasting colours look very impressive. Its leaves and stems are blue-green and sheathing leaf is white.

O. Fedchenko

Olgino, Mozayskogo uyezda (near Moskow)

May 23, 1899

(Article submitted by Dr. George Rodionenko. We have reproduced a copy on the facing page of the original publication dated 1899.)

The following article, one of two, first appeared in GENUS, The Newsletter of the Ornamental Plant Collections Association, Inc., and is reprinted with permission of the author. The second article will appear in the Fall issue of SIGNA. Robyn Rohrlach lives in Mt. Bowen, New South Wales, and holds the National Iris Collection for Australia. Ed.

IRISES - A Collector's Life

Robyn Rohrlach - Australia

Although collecting irises did not become an addiction until I grew up, my childhood passion of picking flowers may have certainly been the catalyst. I was born and grew up in a tiny hamlet called Springton on the edge of the Barossa Valley in South Australia. There is the enduring early memory of being 'given' my very own clump of *Iris unguicularis* (syn. *I. stylosa* - Winter or Algerian Iris) by well-meaning Great-aunt Adeline of local Teutonic ancestry. This endearing lady, though childless herself, had a 'way' with children who seemed to gravitate to her door. One day Auntie Adie, with my young friend Diana (Di) and I straggling up the hill behind her, was pushing an enormous wheelbarrow full of an iris towards the dump. *I. unguicularis* had been removed because of the unseemingly proportions it had achieved in her front garden. While the individual flowers have a delicate charm, long established clumps in favourable conditions can become another matter entirely! Inexplicably she paused near the foul yard and, removing two goodly divisions from the tangled mass of leaves and rhizomes, replanted them by two deeply imbedded granite rocks nearby.

We were solemnly informed, "This is your bit and that is your bit." Mine became the left clump and Di's the right. They still poke up their delicate pencils which unfurl to be transformed into that exquisite symmetry of lavender blue through the thick thatch of leaves during the chilly months of every winter. While the other plant was soon forgotten by my friend, I would happily pick every flower each day on my way to piano practice at my grandmother's house. The white form (*I. unguicularis* var. *alba*), and a darker larger flowered one (var. *marginata*), were soon discovered lurking among the violets in her garden. The white one always bloomed poorly with sparse foliage, languishing for years in the shadow of a dense pine hedge. But they were all fair game as I conducted my raids. Another massive example, some two meters across which grew next to a *Viburnum tinus*, sometimes yielding up to one hundred blooms. I thought the irises looked particularly fine arranged with *Lonicera fragrantissima*, with the blue and white epitomizing the chill of winter and the delicious scent permeating every corner of the room.

When my school days ended I moved to the city and began a career in nursing. Flowers took a back seat for a time but I would always bring back colourful bouquets from my days off spent in the country. Irises were always among them if any were in flower and by then they had long been my favourite. I so admired their fragile perfect form which was so intricately wrought but so precise. Of course I loved all flowers but I think Auntie Adie started the ball

rolling down the iris path. I remember buying my first iris soon after I married in my early twenties. It was a pale blue

nameless tall bearded variety I found in the basement garden section of Myers department store in Adelaide. It flowered dutifully (as TB irises usually do) at our rented home. My disinterest in hybrids, for the most part anyway, was already evident as I forgot to take it with me when we moved house a year later.

The February 17th 1971 edition of that once bastion of national womanhood, The Australian Woman's Weekly, opened the door to many more irises, when their central pullout booklet was devoted to them. I discovered that there were irises of all sizes and shapes that would grow in all manner of situations. This incredible diversity has helped provide the incentive which has fired my enthusiasm for them ever since.

To learn more I joined the Victorian branch of The Iris Society of Australia, as no branch existed in South Australia. Their secretary quickly referred me to the person considered to be the authority on species, Bob Raabe of Wentworthville.. He was also a leading hybridizer of Louisiana Irises. He became a marvelously generous teacher, who shared his experiences of irises with me and advised me of many avenues with which to pursue my hobby. I doubt if my knowledge of them would be a fraction of what it is today without his help. I discovered that iris loving people are referred to in various terms. The 'tall bearded iris fanciers' are a veritable multitude who stretch back well over 100 years. Many have been hybridizers with credit. This popularity shows no signs of waning. Another growing throng of folk are trying their hand at improving the quality of Siberian, Louisiana, Californian, spuria and other kinds of irises. The clever Japanese have been weaving their magic spells on the famous and sumptuous *I. ensata* (syn. *I. kaempferi*) since the 14th century. New challenges have been emerging with the crossing of distantly or unrelated species. Names like *I. x versata* (*I. versicolor* x *I. ensata*) and Calsib's (California or Pacific Coast species x Siberian Iris) will be seen much more in years to come. We may end up with a whole new generation of irises as there are many individuals on the international scene applying themselves to this end. One scheme in Canada in the past ten years or so which produced the first *I. versata* released was funded by the government and produced in a laboratory artificially.

The small band (like me) who still carry the torch for the lesser known and grown species irises have been described, rather unflatteringly, as 'species nuts'. Perhaps this is why it is a minority group, but I doubt it! Rather, we may consider ourselves purists perhaps. It is worth noting that the largest -ever convention of hybridizers in history was in Oregon in 1994 with some 1,100 people in attendance. The world's two biggest nurseries for TB irises are in that region of some 550 acres (Cooley's) and 250 acres (Schreiner's) apiece. My visit to St. Louis, Missouri, in March 1995 for the first International Symposium on Gardening with Iris Species attracted a gathering of 165 registrations which included most of the world's leaders in this relatively small field. Some were botanists from botanic gardens who specialized in iris species or Iridaceae.

With around 300 named iris species, and more still being discovered in places like China, there is enough to keep anyone in this field occupied indefinitely. An individual would perhaps be hard pressed to grow even a quarter of them in a lifetime. Many need to be grown from seed as they all originate in the Northern Hemisphere. Importing plants is

fraught with difficulties and can be frustrating and disappointing not to mention horrendously expensive. Treatments to kill pests and diseases in quarantine are often lethal to the irises and some species resent the abrupt change of hemispheres and acclimatise poorly or not at all. The best chances of success can often be with seed-grown plants, but

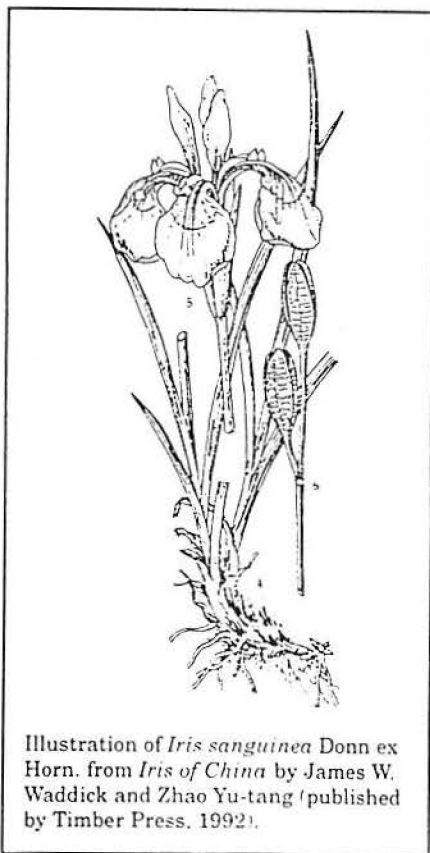


Illustration of *Iris sanguinea* Donn ex Horn. from *Iris of China* by James W. Waddick and Zhao Yu-tang (published by Timber Press, 1992).

becoming familiar with the diversity of even the seed of different irises can take years to achieve. There can be difficulties with germination of some irises with diabolical inbuilt inhibitors which can take many years to break down under natural conditions (24 years is the record in the case of *I. gatesii*, an oncocyclus iris from the Middle East!) There are ways around this but one almost needs to be a cross between a brain surgeon and an industrial chemist to resort to techniques like embryo culture to hasten the germination process! Sometime seed sources are unreliable and identification of seedlings can reveal a ring in. This is when a good reference library is needed. Over the past 25 years my literature has expanded to include most of the books written on irises. There are one or two which have become indispensable, especially 'The Iris' by Brian Mathew (1981, revised 1989) and 'Iris of China' by James W. Waddick and Zhao Yu-tang (1992).

I am now aiming to grow and preserve as much of the material that nature has provided in the first place. The hybridization and 'improvement' of some species by man may ultimately cloud the issue of just what constitutes a genuine species. Batches of wild seed may reveal a variety of characteristics in clones within a species itself such as variation in colour, form, height and vigour. The collection of wild plants now has many more restrictions applied, but wild populations are still being depleted or lost before they

have even been recorded, much less studied. It was an emotional moment for me to hear the 92 year old botanist Dr. George Rodionenko from St. Petersburg in St. Louis last year passionately and eloquently pleading the case for the preservation of the rare iris species. One hardly needed the help of an interpreter! He movingly illustrated his point by presenting a slide of his students reintroducing an *I. reticulata* species back into the wild in Russia.

The climate here in Australia is very conducive in many places to growing a very wide range of irises. There are irises which will suit most landscapes whether they are sunny, shady, wet or dry. There are giants which will make quite a statement and miniatures which will gladden the heart of any rock gardener. The popular perennial border can be enhanced by the clean vertical lines of iris foliage which can be attractive even when not in flower. In my next article I will discuss some of the iris species with landscaping potential which I regard as worthy of consideration in gardens in the 1990s.

A Korean Iris Discovered in China - *Iris odaesanensis* Y. Lee

Zhao Yu-tang and Zhou You, Julin Province, China

While the iris experts and enthusiasts have paid great attention to the outlying areas in China such as the remote parts of Yunnan, Sichuan and Xizang (Tibet) Provinces in hopes of finding some rare *Iris* species to grow or study, a surprising bit of *Iris* news has happened right here near home. We have collected a white flowered iris - *Iris odaesanensis* Y. Lee here in northeast China.

Iris odaesanensis was first discovered in Odaesan, a mountain in the middle of the Korean Peninsula and first described in 1974 by Dr. Young No Lee, an authoritative botanist of the Republic of Korea. Because its plants have white flowers, some Korean botanists have given it a different name, for example *Iris koreana* var *albiflora* T. Lee (1984) or *I. koreana* f. *albiflora* Chang et Lee (1964).

In the spring of 1996, the senior author, Zhao Yu-tang, traveled to Yunnan and Gansu Provinces to study and collect *Iris* species. The second author, Zhou You is a teacher in Tonghua Normal College, Julin Province. He collected a specimen of an iris and presented it to the senior author for identification. Its main characteristics are: long, slender rhizome; leaves in tufts, two flowers per scape, pedicels are 3.5-4.5 cm long, standards and falls of flower are white with a yellow spot in the middle of each fall; no beard or crest. It was determined that it belongs to the subgenus *Luminaries*, subsection *Apogon*, series *Chinenses* (according to the BIS species group system and the classification suggested by Prof. G. Rodionenko).

This plant was found growing in Zhenzumen County, Baishan City, Julin Province, China, about 50 mms north of the border between China and North Korea. At this location there is a marsh, a pond and it is littered with stones; the woody companion plants are *Carpinus cordata*, *Abies neurolepis*, and *Spiraea ussuriensis*; some herbs include *Adiantum palmatum* and *Epimedium koreana*, etc.

We returned to the location to collect rhizomes and seeds in autumn (September 14, 1996) but could not locate foliage or fruits as they are already dormant.

This is a typically Korean *Iris* species. The main distribution is in the middle of the Korean Peninsula, but this is a new location report north of the border of North Korea. There are no reports of this species from North Korea itself. Although it may be distributed in North Korea, we need more intense study and communication with this country to determine a complete distribution of this iris.

Thanks to Mr. Zhu Juenyi for help in collecting this plant.

(Edited by Dr. James W. Waddick)

Sources for Juno and Reticulata Irises

Alan McMurtrie --Willowdale, Canada

I have found that selections vary from year to year, so as a result, I don't hesitate to purchase a variety as soon as I see that's it's available. Sometimes they are only available for a year, and sometimes they're gone after just two or three. The only varieties that seem to always be available are of course *bucharica* and *magnifica*. Write to the sources below for a current list of what's available.

Alan McMurtrie
22 Calderon Cres.,
Willowdale, Ont.
Canada M2R 2E5

Potterton and Martin
Moortown Road
Nettleton, Caistor. Linc.,
England LN7 6HX

P. J. Christian
P.O. Box 468
Wrexham
England LL13 5PH

Cambridge Bulbs
40 Whittlesford Road
Newton, Cambridge
England CB2 5PH

Janis Ruksans
Rozula, Cesu apr.
LV-4150
Latvia

Bulbs d'Opal
Cidex 528
384, Boerenweg Ouest
59285 Buysscheure
France

1966 Juno Bloom Report

Alan McMurtrie

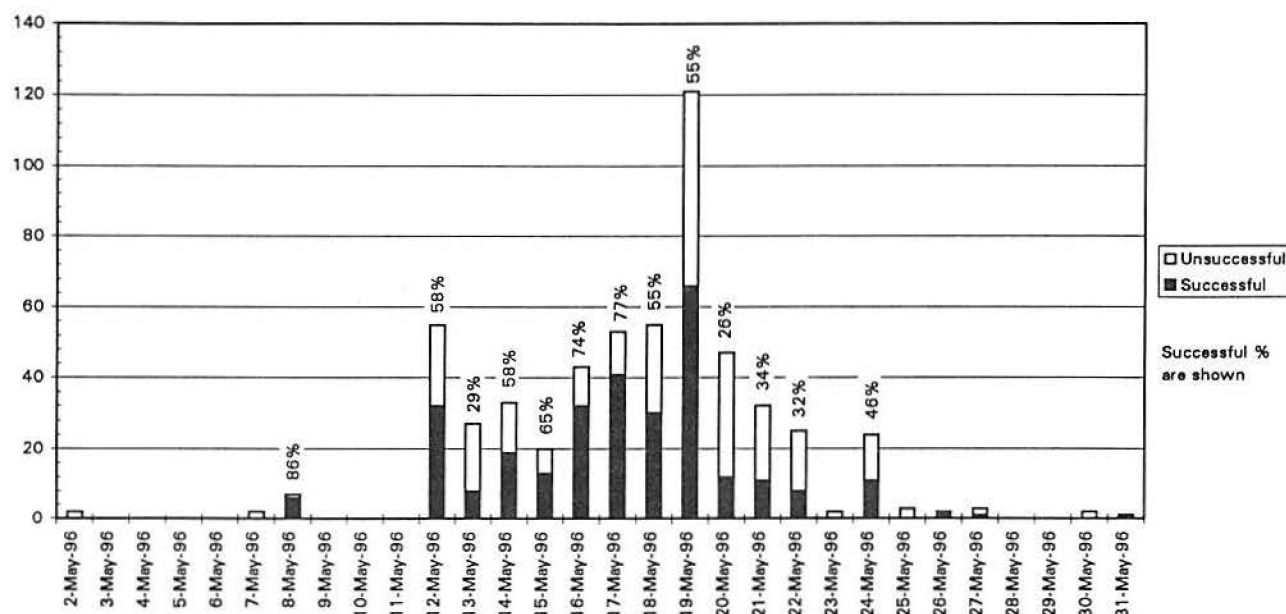
On May 8th *willmottiana* (true) started to bloom along with dwarf *aucheri*. This is about 10 days later than normal. Of course the early species like *nicolai* and *rosenbachiana* had already finished by then. The bulk of Juno bloom started on May 10th.

There were three highlights to this year's bloom: seeing *zaprjagajewii*, *bucharica* forma, and *microglossa* all bloom for the first time. The *zaprjagajewii* was one I raised from Gert Bohme's wild collected seed. Its leaves were more widely open than shown in colour plate 33 of Mathew's 'The Iris': just over 13 cm in diameter. They are a distinct grey-green. Its white flower had very light blackish markings on its fall blade, which gave somewhat of a speckled effect. On either side of its crest were two black lines (in the veins feeding the blade). These markings don't appear in Mathew's clone. And, only the lower half of the crest was yellow. I tried crossing it with *rosenbachiana* and *nicolai*. A pod was set, but I was surprised to find that the seeds were no good. It bloomed after *nicolai* and *rosenbachiana*, so I couldn't use its pollen on either of those two

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Figure 2: 1996 Juno Crosses



Bucharica forma is essentially a small sulfur-coloured *bucharica*. Tony Hall sent me the bulb last fall. I have had another bulb of it, also from Tony, for 4 years, but it has yet to bloom. Just a couple of days after the 1995 *bucharica* forma opened, "*baldschuanica*" raised from seed bloomed. It turned out to be *bucharica* forma. I knew originally that it wasn't true *baldschuanica*, since the seeds didn't have a white line on them. If I hadn't seen *bucharica* forma before the "*baldschuanica*" bloomed I would have really wondered what I had. Neither of the two set seed, but their pollen worked on 4 of 6 crosses: two *orchioides*, one *warleyensis*, and a *vicaria*. The two crosses that didn't work were onto *magnifica*.

I have Henrik Zetterlund to thank for *microglossa*. While its flowers are not as showy as some species', it is certainly a treat to have. I tried selfing its flower, as well as using pollen from several other Junos, but no seeds were set. What I likely need now is another clone of *microglossa* for breeding purposes. *Microglossa* bloomed May 31st and finished June 2. Its foliage is amazingly similar to *cycloglossa*'s. I say amazingly simply because *cycloglossa*'s flower is so different. Both grow on Afghanistan's Salang pass (as well as other locations), though *microglossa* is found there between 8,000 and 10,000 feet, while *cycloglossa* is found at 3,000. *Xanthochlora* grows along side of *microglossa*.

Other highlights included several of my hybrids blooming for the first time:

Three *albomarginata* x *vicaria* (veined form) clones bloomed from 1991 seed. You could say they looked like veined forms of *albomarginata*, especially the first one to open. Its style arms and standards were solid blue, exactly the same colour as *albomarginata*. Its fall was also the same colour, with a solid tip area starting at the end of its crest, and widely spaced veins running to the stem. The veins were of moderate width such that they show up from a distance. there was no yellow on its crest. The second clone was taller, and lighter in colour. Because of the lighter colour the veins weren't as prominent from a distance. It had a bit of yellow part way along its crest. The third one was dark blue in colour, but the veins on its falls were not as widely spaced as the previous two, and they were narrower. As a result its not as showy as the first clone. This one also had a touch of yellow part way along its crest. All were semi-winged. Unfortunately as expected, none set seed. I don't believe their pollen any good.

Two *albomarginata* x *graeberiana* hybrids bloomed from 1989 seed. One was intermediate to the two parents, the other looked very much like *albomarginata*. Both had *graeberiana*'s methyl-blue colouring. Both set seed with *warleyensis* pollen. *Willmottiana* pollen was also used on one of the crosses. Note: putting *warleyensis* pollen onto *graeberiana* is a cross that normally works. I used it here hoping that it might like-wise work. Two crosses were made with the hybrid pollen, but neither worked.

In terms of this cross being able to set seed it's important to remember that *albomarginata* and *graeberiana* are closely related species, where as *albomarginata* x *vicaria* aren't.

A 1991 *bucharica* x *orchioides* hybrid bloomed. As expected it generally looked like a winged *bucharica*: its standards and styles were creamy, and around its yellow fall was a cream border, wider at the arch and vanishing right at the very tip. There are green markings around its crest, just like both parents can have. Its winged hafts were about half the width of true *orchioides*'. It had three flowers. Unfortunately this was one of the clones damaged by white grubs; in this case the day after it first opened. You can imagine how disappointed I was. It was pollen sterile.

Mojmir Pavelka's *orchioides* bloomed this year, but instead of last year's one flower, it had three. It is similar to the picture taken by Nigel Service in the wild, but his picture shows 6 flowers on a stem. I am of course hoping that the plants I have prove to be the same species, and that they too yield 6 flowers! It doesn't quite look like the *orchioides* I am familiar with because it grows much taller, its foliage is narrower, and its leaves aren't silver edged, but certainly its flowers have very widely winged falls. A second bulb with a single flower bloomed in a different bed. I had completely forgotten that there were some Junos in that spot¹², especially since some bearded Iris are now growing quite close to it. I was pleased to see it in part because its in a different part of the yard, so I can compare how it does there. I had actually planted those bulbs there as an insurance policy in case anything happened to the others. I only happened to notice the flower because I was doing some weeding in the area. Unfortunately this clone doesn't appear to be a good increaser.

The *orchioides* I'm familiar with is more dwarf, with silver edged dark green foliage. Its flowers are cream in colour with a large orangish yellow tear-drop shaped blotch on its fall blade starting at the arch in the fall. The blotch doesn't go right to the blade edge, so there is about a 3 mm border of cream. The exact shade of orangish-yellow varies from clone to clone, with a few being noticeably orange compared to the majority. Some clones have dark green markings beside the crest. Its hafts are of course very widely winged, and it has a very dissected crest which appears like a line of short hairs going every which way. It has an infusion of orangish yellow in its style lobes.

I have Tony Hall at Kew Gardens to thank for the dark blue/violet forms of *warleyensis* that bloomed this year. In fully violet forms the standards and styles are violet just like the falls (through not quite as dark as on the fall). Typical *warleyensis* has white standards and styles with a rich velvety dark blue/ violet fall. What surprised me about the clones from Tony was their *kuschakewiczii*-like foliage: dwarf, silver edged, glossy dark green foliage. The typical forms I have, as well as the Alba form, are all taller and I believe not quite as darkly coloured, nor as noticeably silver edged. I've always regarded *warleyensis* as being closer to *bucharica* and *magnifica* than species like *kuschakewiczii*, though certainly and unfortunately, it seems to be trickier to grow.

If this beauty was as easy to grow as *bucharica* is, then quite likely Junos would be more popular than they are.

By last fall one of my typical clones of *warleyensis* had built up into four bulbs (two clumps of two bulbs¹³). At that time I made a decision not to divide them because I didn't want to chance anything happening to them. I also felt I wanted to wait and get one more season's bloom before moving half, since sometimes Junos don't seem to bloom the first year after they've been moved. Wouldn't you know it though, when they started to come up one stopped growing. As soon as I saw something was wrong I investigated and found the bulb rotting (stinky!). I suspected its twin was also infected, so I promptly tossed the two in the garbage. I was quite disappointed. If I had more bulbs of *warleyensis* I wouldn't have minded, but I don't.

The other two bulbs seem to be doing fine. I hate to even look, since I know if there were a problem there's nothing I can do; it would already be too late. I expect what I'll do next fall is move half to the bed at the front of the house where the alba form is doing well. I don't want to risk only having one clump of it in case something similar happens again. I do have one other clone of typical *warleyensis*, which did bloom this year.

Tony gave me several clones of *warleyensis* in 1991, but they didn't do well. Perhaps this was because they were in a crowded spot, where tall Tulips and tall bearded Iris blocked them from getting sun. Only the Alba form survived. It

¹² ...just like a squirrel forgetting where he buried his fruit and nuts.

¹³ The two clumps are very close together. This is a result of previously dividing two bulbs with minimal disturbance to their roots. ie. The roots were left buried and the soil was removed to a bit below the bulbs, then the bulbs were moved apart and the soil was filled back in starting between the bulbs in order to hold them apart.

began to thrive after I moved it to its current more open spot in the same bed. The clones Tony gave me last year were planted near *warleyensis* Alba. Because they all appear to be doing well there I've expanded the area slightly for few more.

I also lost a dark blue form of *warleyensis* from Maurice Boussard. Prior to this year's success I would have said that the dark forms appear to be more susceptible to problems. A previously bulb of Maurice's *warleyensis* was stolen by a squirrel.

Warleyensis Alba, which had bloomed consistently for the previous 2 years, did not do so this year. Its bulbs are doing well though.

In case you didn't realize, the typical alba form is not fully white. It has a rosy cast to the fall blade, with a strong yellow blotch around its crest. You probably expected the fall to have a light infusion of blue or violet, but that isn't the case. Interestingly, Janis Ruksans sent me a slide that he took in the wild showing a clump of *warleyensis* with 9 bloom stalks. Three are typical *warleyensis*, while the other six are pure white! They don't appear to have any blue or violet influence what-so-ever; just a bright yellow blotch around its crest.

My 1992 *magnifica* x *warleyensis* hybrids are coming along well. Natural hybrids between *magnifica* and *warleyensis* can be found in the wild; though I don't know of anyone in the west who has one. Hopefully some of my own will bloom next year, however I really don't know whether or not they are big enough to do so. It would be nice if these had been involving dark blue/violet forms of *warleyensis*. It will be at least 5 years before any from this year's crosses are big enough to bloom.

Two of my favorite Junos, *albomarginata* and *willmottiana*, continue to do well. Unfortunately *albomarginata* only increases slowly. One clone hasn't increased at all -- after 5 years, I still have only a single bulb of it. The other clone has increased, and I have sent bulbs of it to two other people (though I know in one case the bulb died).

Willmottiana also increases slowly. One clone that bloomed for the first time last year, and that was taller than normal, didn't bloom this year. It still had the normal maximum 3 flowers (I had been hoping for more). I also have a number of bulbs that I raised from seed. I received the seed under the names of *kuschakewiczii* and "kywakebura". They have smaller flowers than my other clones. In fact, they look like someone took the other clones and trimmed 3 mm off all the way round their fall.

Linifolia had 9 flowers on approximately 7 bulbs in 3 locations. Bulbs in another bed, which has been quite good for other Junos, are doing poorly. The only difference is additional drainage due to maple tree roots, where they are doing well. This makes one humble: you might get a sense you know what you are doing, but these incidents pull you down to earth.

Two *maracandicas* in different parts of the garden are hanging on. One had an aborted bloom.

Only one *caucasica* bloomed. *Caucasica* doesn't seem to be a strong doer. At one time it had been doing quite well in the Juno hut¹⁴, but then several years ago I replanted the bed and the bulbs were moved over several feet. Since then they've seemed somewhat weak. I also have a number of bulbs in sandy loam soil which come up weakly. I'm not sure what I can do to help them out.

Based on how much rain we got this year, plus the fact it wasn't as hot as it usually gets, I expect there will be very little *aucheri* and *caucasica* bloom next year. Overall *aucheri*'s bloom was lowish this year, but not too bad. ♡

¹⁴ The hut is where I started growing a lot of my Junos just over 10 years ago. It's approximately 3' high (4' at the centre) x 7' wide x 8' deep. It is constructed of a 2" x 4" wood frame, with the sides covered in metal sheet. The top is open, but it was designed so that during the summer clear acrylic panels can be fastened on top to keep rain off. The panels allow sunlight to get to the plants while they are dying down. The panels would be removed about the beginning of October. I haven't tended to bother putting on most of the panels over the past couple of years. This year for example I didn't put any on.

The hut is filled with about 25 cm of medium coarseness sand.

The idea was for the hut to provide a microclimate similar to what the Junos would experience in the wild.

Very unfortunately '*graeberiana*, not the van Tubergen form', has now died. The damage the squirrel did last year was severe enough that the bulb didn't recover. It was still alive in the early spring, but it never put on any growth and sadly has now disappeared.

Very sadly *stenophylla* subsp *allisonii* is gone! I dug it up this spring when it didn't seem to be coming up and found it had turned to mush. This was the biggest, most significant loss of the year. On the positive side though, this fall Tony Hall sent me 4 bulbs of it which I planted in 2 different locations in the garden. It will be interesting to see how this form compares to the one I had from Norman Stevens.

Bucharica PF8223 is back doing poorly. It had bloomed the previous two years. I specifically didn't move the bulbs when I was replanting some of the surrounding area last fall for fear of upsetting it. Its foliage is more like *kuschakewiczii*'s in the sense of being shorter and more dark green

Rosenbachiana in coarse sand in the Juno hut is not doing as well as last year: two of Rodionenko's bulbs didn't come up. Several years back I moved bulbs to two other locations in the garden. One of these bloomed again this year. Quite a few *rosenbachianas* from Janis Ruksans also in the Juno hut also perished. I purchased 4 more this year and planted them in 2 different locations

The Junos in the hut seem to have done somewhat poorly over the past two years. In particular *kuschakewiczii* has not been fairing well, but then it hasn't been doing well in other locations either. In fact I didn't get any blooms on it at all this year. Originally I thought it would turn out to be quite easy here.

Orchioides (true) also hasn't done as well as it had previously, but the bulbs in the hut are still blooming (just not as profusely as at one time). Perhaps in part the problems are due to a large nearby maple tree, but I don't believe this is the main factor. Some bulbs of *orchioides* (true) in another bed seem to have largely died out, but why? *Linifolia* there was previously affected (ie. wiped out), but the majority of other Junos around there are fine (*linifolia* does well elsewhere). *Orchioides* had done well there for 3 years prior. Two other plantings elsewhere are doing reasonably well.

Some forms of *orchioides* hort.¹⁵ (yes, there are several forms of *orchioides* hort. around), specifically what I believe is the commercial form, increase quite well, but tend not to flower. Other forms I have, flower every year, and their increase rate is similar to typical *bucharica* hort.

This year I had white grub problems for the first time. I found stems eaten just below the soil surface. I came to realize that it was white grubs that were causing the damage and that even if I didn't find one right at the stem I could sift through the soil and find it a short distance away. I have noticed white grubs in the soil in the past, but never noticed any damage like I had this year. I did spray the garden in early summer. I had wanted to spray in the fall but I never got a chance to. When I was replanting my Retics and other bulbs I did occasionally run across white grubs, including some babies. I hope to spray for them early next spring before they have a chance to do any more damage.

Often when I go to dig my Junos I damage a couple of bulbs, particularly if I'm trying to dig individual bulbs for sales. It can feel like being stabbed in the heart so-to-speak, particularly if the bulb affected is a special one.

	<u>Juno Crosses</u>	<u>Successful</u>	<u>Seeds</u>	<u>Avg./Pod</u>
1995:	622 made in total	361 (58%)	6690	18.5
1996:	574 made in total	306 (53%)	5013	16.4

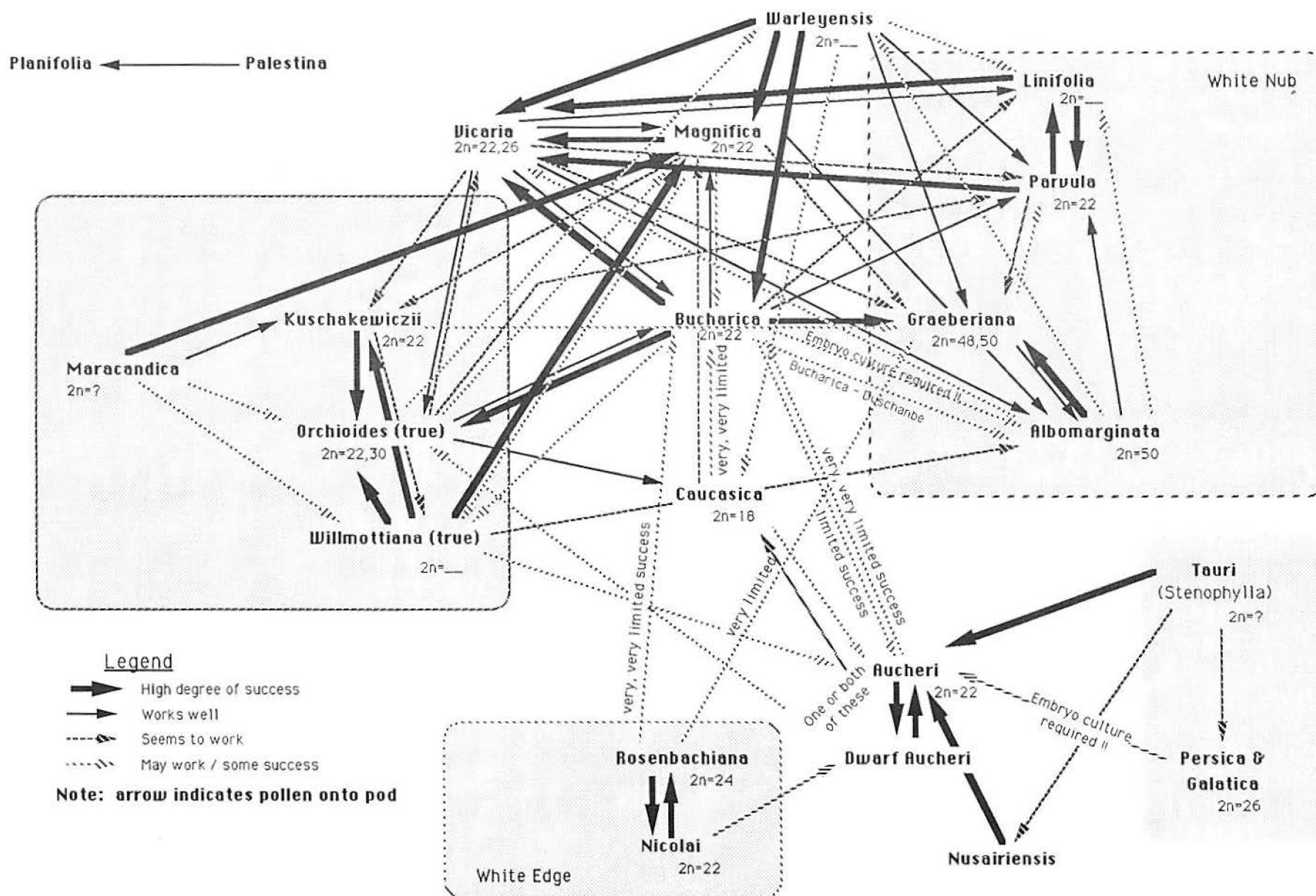
Table 4: 1995 & 1996 Juno Hybridizing Results

An updated 'Juno Crosses That Work' diagram is shown on the next page.

I have felt for a number of years that although some crosses don't work, crosses between specific clones may: eg. *bucharica* - Duschanbe * *albomarginata* does give some seeds, whereas other clones of *bucharica* don't yield any. The

¹⁵ These are actually "somewhat yellow" forms of *bucharica*. They are different from wholly yellow forms, in which the flower is completely the same bright yellow colour. They are clearly *bucharica* since they are unwinged. True *orchioides* has widely winged hafts.

Figure 3: **Juno Crosses That Work** (1996)



Notes:

Not all successful crosses are shown. In particular, crosses involving multiple pollen parents are not shown, unless one pollen parent is suspected of causing the cross. Crosses that produced only a few seeds (<6) are not shown.

difficulty is identifying specifically on which clones a cross works. Normally I only identify the species names of the parents on my hybridizing tags, not specifically which clones the pod and pollen parents were. At seed collecting time I'm now trying to make sure that at the very least the pod parent is identified for crosses that I think are of particular interest. I've reflected this in the diagram 'Juno Crosses: Successes and Failures', which is on the next page, by listing out many of my different clones. You will see that for some species the results are quite similar for all clones. For now I'm listing all of this information so that I can continue to add to it in future (though I've pared it down a bit in Figure 4 in order to get it to fit onto one page). The one thing that doesn't get shown is exactly how many of each cross I've tried and the percent that were successful.

Penny Aguirre wrote, the Junos "were quite the conversation pieces with garden visitors. I am a molecular biologist by trade, so some people thought I produced them in the lab. How else do you get an Iris bloom on a maize plant! ...they all bloomed and I was particularly fond of *graeberiana* 'Dark Form'".

Miscellaneous

The problem with planting seeds too shallow is that they, and the bulblets they produce, can more easily be heaved out of the ground. I found a bit of that going on this spring. I had removed a reasonable amount of straw when the first Retics started to germinate (to minimize any slug problems once it got warmer), but we had quite a number of days with frost after that point. Later when the bulblet's foliage began to die down I noticed that some of 1994's bulblets were sitting on top of the ground (both Juno and Reticulata bulblets). This had never happened before. I carefully went over the bed and dug them in at least 1.5 cm deep. Now I wonder what I'm in for next year since I planted my 1995 seeds shallower than usual. I wanted to see whether this started germination any earlier or increased the germination rate.

In terms of earlier germination I wouldn't say it helped since there were only a few first year germinators this spring from the 1995 seed. The majority of germination normally occurs after the second winter. Interestingly, none of those new bulblets heaved out of the ground, and they're planted right beside the 1994 area.

I also planted this year's seeds on the shallow side. Next year I should be able to get a clear idea of whether this is of any benefit, assuming I have time to record germination rates.

Last year I didn't physically double plant¹⁶ as I had in 1994, rather, since I knew it would be necessary, I planted the rows closer together than I otherwise would have: 3.5 cm vs. 5 cm. However, with double planting, the 5 cm became 2.5 cm in 1994. This was necessitated by the fact that I had so many seeds that I wanted to plant, and less and less room for them. In 1994 I squeezed at least 7000 seeds into approx. 5.25 sq metres. In 1995 I afforded 5000 seeds 5 sq. m. It was because I had less seeds to plant per square metre that I figured I could give them an extra cm between rows.

This year I crammed 8000 seeds into 4 sq. meters. Talk about tight! One thing that allows me to do this, is relatively low Retic germination (30% minus 5% losses for a net 25%), and even lower Juno germination.

The reason I cram so many seeds into a small area is because I'm keen to see what progeny each will yield. In a sense you never know which cross is going to give the next super star. As well, these second generation crosses should give wider expressions than the first generation ones did.

I often find crosses with 3 or less seeds don't germinate. I don't have any statistics to prove this out. However, I now plant most of the '3 seeds and under' crosses in a group. I loose track of the parentage, but they don't justify the expense of a metal tag and the extra space the tag takes incurs.

Last year I reused my 1992 Juno seedling area after moving the bulbs that were coming along, to one end of the bed. As well I had to clear out a lot of my siberian seedlings which had been doing quite nicely at the opposite end. This year I moved my 1991 seedlings into one half of their area, and then used the remaining space for this year's seeds. I also used up a fair portion of the area that had my 1990 Juno seeds (the seedlings were moved into one third of the area). I was able to do this because I tagged all of the seedlings before their leaves died down. They were then moved in mid September. This year I had also tagged my 1990 Retic seedlings, but I never got a chance to move them.

¹⁶ "Double Planting" refers to my planting Juno seeds inbetween rows of Reticulata seeds. This is accomplished by first planting the Reticulata rows, and then using a small flat sheet of metal to wedge open a row half way between the Reticulata rows. The Juno seeds can then be planted and the two sides of the wedged row patted closed.

Pod Parent	Pol	Alb	Gra	Lin	Par	Au	Au	Au	Au	Au	Au	Nu	*Bl	Bu	Bu	Bu	Bu	Bu	Bu	Oro	Ca	Ma	Ma	Vic	Vic	Vic	Vic	Vic	*K	We	We	We	Ku	Mal	Oro	Oro	Will	Gal	Ste	Per	Nic	Ro		
Albomarginata I		Y	Y																	Y		X				Y	3																	
Graeberiana		Y	Y		Y	X	X					X	X	Y	Y	Y	Y	Y			X	3	3	3	Y	Y	Y	Y	Y	Y	Y	Y		X	4	X	X				X	X	4	
Linifolia		Y	X	Y	Y									Y		Y										Y																		
Parvula		Y	Y	Y	Y									Y	Y										Y				Y	Y			X		Y	X								
Aucheri, hort.		X				Y	Y	Y	4	Y				X					4	4			X	X	X	X							X	X	X	X		E	Y	E				
Aucheri, Leylek		X	X		X		Y	Y	Y	Y	Y			4	4				X		4	X	X	X	X			X			X				X	X		X				4	4	
Aucheri, dwarf			X			Y	Y	Y	Y					4											X									X									4	4
Aucheri, Bechce						Y		Y	Y					X		X				3	X																4		YY					
Aucheri, Kew						Y		Y	Y					X	X																													
'Blue Bucharica -Stage 1' *	X	X											X		Y	Y	Y				X	X				Y	Y		Y	Y	Y		Y	Y	X		Y	X		X				
Bucharica, hort.	X	X		X	X	X	X	?					4	Y	Y	Y	Y				X	4	X	X	2	Y	Y	Y	Y	Y	Y	Y	Y	X	X	Y	X		X		X		X	X
Bucharica, Edmundas 9'4			X											Y		Y	Y									X	Y	Y			Y	Y					4							
Bucharica, Duschanbe	4													Y		Y	Y					X	X			X	Y	Y		Y	Y	Y	Y				Y	Y						
Bucharica, wholly Yellow																	Y													Y	4	Y					4	4						
Bucharica, Cuba																	Y									Y	Y				YY					Y								
Bucharica, "LWW"																				X						Y				Y	Y		Y	Y			X	4						
Bucharica, yellowish		X					X	X					Y					Y			4				Y					Y	Y		Y	4			4	X		X		X		
Bucharica, Bed 12																				4																								
Bucharica, Ruksans																	Y					Y				Y											4							
Orchioides, hort. (various)				X		X	4	4						Y	Y					X	Y	X	Y		Y	Y	Y	Y	Y	Y	Y	Y			Y									
Caucasica		4	X	X	X	4	4						X	X	X						Y	X	X		X				X	4				X	X	4	X	X	X	X			X	
Magnifica	X	X	X	X	X	X	X						'2	Y	4	Y		Y	X	Y	4	Y	Y	Y	2	2	2	Y	Y	Y	4		X	Y	X	4	Y	X	X	X	X	X	X	
Magnifica, Bulbs d'Opal	X													X	X										4		Y	X							3									
Magnifica Alba													3	Y	4	4				4	X	Y	Y			X			Y	Y	Y	Y				3	Y							
Vicaria	X	4	Y	Y		X	X							Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y		Y		4	X	3	4			X	X	X	X			
Vicaria, veined	Y			X									Y												Y	Y	Y	Y		Y						Y								
Vicaria, good Kew	X													Y	Y	Y	Y	Y	Y		Y	X				Y			Y	Y	Y	Y				Y								
Vicaria, tall Ruksans	Y													Y	Y	Y						Y			Y	Y	Y	Y		Y	Y	Y												
Vicaria, Witt's			X	4	4									Y	Y	Y				3						Y	Y		Y	Y							X							
"Kopetdagensis"	4	3	4	3		X	X	X					3	Y	Y					Y	X	?	?			Y	4	Y	4		Y		X		XX	X								
Warleyensis (blue/violet)	4													Y					4						Y											Y	Y							
Kuschakewiczii		X	X				X	X						X							Y	4			X								Y	4			YY	X	X	4		X		
Maracandica			X																															X	Y			X						
Orchioides (true)		X	4	X	X	4	X						Y	Y	Y	Y		Y	Y	4			X		4	Y	X		3						4	Y	Y	Y						
Orchioides, Mojmir														Y	Y	X					X	4			X	X								Y	Y		Y							
Willmottiana (true)		X	X											Y	Y	X																												
Galatica																																						Y						
Stenophylla																																						X	Y	X				
Nicolai																																								X			Y	Y
Rosenbachiana																																								X			Y	Y

Legend

Y High degree of success
2 Works well
3 Seems to work
4 Some degree of success
X Doesn't work
XX Absolutely doesn't work
? Seeds seem poor
E Embryo culture required
(empty) = Never tried

* yields low number of seeds

Sterile

Graeberiana, 'Dark Form'
 Kara Kum desert Juno'
 "Bucharica x Aucheri"
 SINDPERS
 WARLSIND
 "Willmottiana Alba"
 "Willmottiana hort."

* Bucharica, "LWW" = Long styles, Wide standards, and semi-Winged haft

Figure 4 Juno Crosses: Successes and Failures

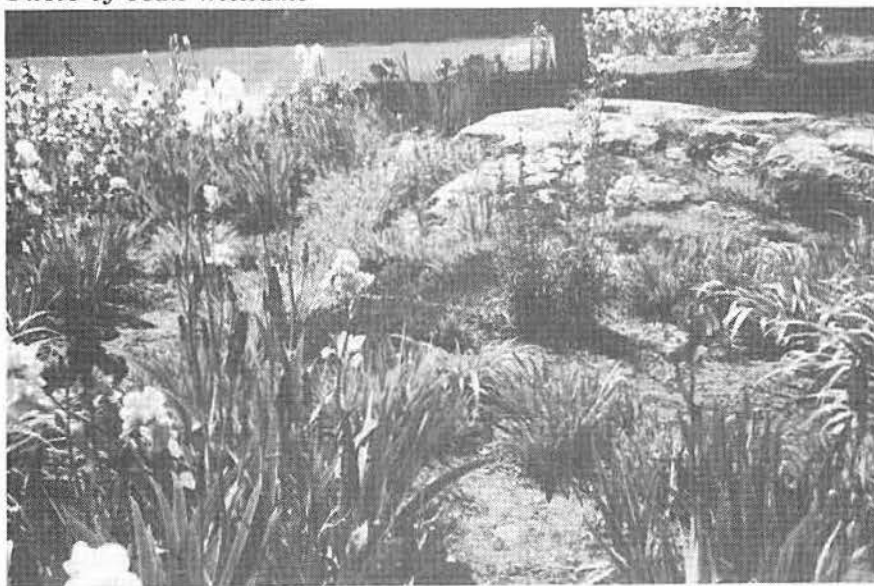
New Iris Garden In Victoria, B.C.

Joy Flint--Victoria, B.C.

In 1992, *The Friends of the Government House Gardens Society* was formed to work together with the Provincial Government to support a vision of gardens in "a tranquil location for the citizens of British Columbia and visitors to our Province to enjoy". It was almost kismet for me to respond to "The Challenge" with a photo presentation of Tall Bearded and Species Irises. Initially, plans were to refurbish the existing gardens but with the formation of "The Friends Society" plans for new gardens were made. "The Friends" would establish the framework of plantings and maintenance. It took dedication and foresight by the nucleus of a handful of skilled gardeners to get things in perspective and motion, and for progress to ensue.

A photo presentation of Tall Bearded and Species Irises was presented and accepted in 1992, and the first shipment of mainly tall bearded were readied and transported for potting over the winter so they could be correlated and space allotted in the existing gardens. In the spring of 1993, the plants were in good shape and were planted in a propagating bed. It was an illuminating experience, as all the volunteers involved were really interested, concerned and anxious to learn, which reinforced the desire for a successful venture for all of us. At this time it was asked that an Iris Garden be planted.

Photo by Jean Williams



The site of the garden was ideal--full sun and a gentle slope with good drainage. It was well-composted, as it had previously been the vegetable garden for "The House" and had been grassed over for many years. pH was neutral. The Iris Gardens are comprised of two beds. First is a 550 square foot triangular shape which, to me, represents the three standards and three falls. 110 clumps of blue and white tall bearded, with blends and darkest at the back, are the principal plantings. They are

bordered by Doe's Ear and London Pride. In the center is a Star Magnolia and in spring, *Iris Reticulata*s dot the border. Between the rows are blue and white pansies. In summer, after bloom, white ivy geraniums and blue lobelia trailing from pots on cedar posts have been tried. They seem workable and adaptable to seasonal change. The second garden is 2450 square feet, beginning with a striking natural rock outcrop which adds architectural interest. If you have a good imagination, this garden is shaped like a leaf with over five hundred dwarf irises planted as 'veins' to divide the area into fourteen sections. We are trying very hard to

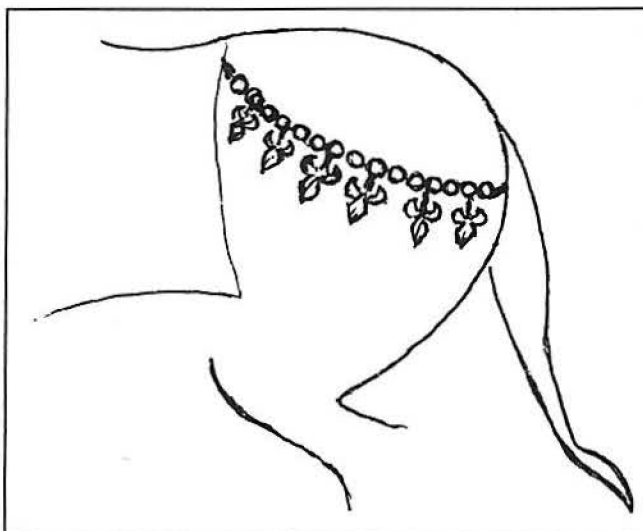
make this a four season garden which features irises. Some of the iris types planted are: bearded, spuria, *I. cristata*, siberian irises, *I. setosa*, *I. danfordia* and *I. reticulata*, Pacific Coast irises, *I. unguicularis*, evansia irises and other bulbous irises. In addition, heuchera, schizostylus, peonies, lilies, nerines, crinums, tulips, crocus and cyclamen have been planted.

The Government House Iris Garden was officially opened on June 1, 1996. Barring cataclysms, it will join the other existing gardens on this tranquil thirty-acre site in perpetuity. If Victoria is on your travel horizon, we welcome you to stroll through the Government House grounds--open sunup to sundown each day, and located in the heart of the city at 1401 Rockland Avenue. There is no admission charge except for prearranged tours. The Cut Flower Garden, English Country Garden, Pool Garden, Rockland Borders I and II, the Rose Garden, the Herb Garden, Nursery Garden, Rock and Alpine and Native Plant Woodlands are all cared for and maintained by volunteers. Iris bloom time is normally May to June.

... from Jean Witt

Here's a bit of Iris-in-Art or perhaps Iris-in-History. It comes from the volume Central Asia by Aleksandr Belenitsky, from the series Archeologia Mundi, prepared under the direction of Jean Marcade, Professor of Archeology at the University of Bordeaux, France; translated from the Russian by James Ho Garth. Copyright 1968 by Navel Publishers, Geneva; the World Publishing Co., Cleveland and New York. Plate 137 depicts part of a wall painting from Pendzhikent (east of Samarkand) dated from the 7th century A.D., showing a fight between a horseman and a monster. The trappings on a bay horse with white feet and a blazed face include a loop of gold colored iris designs running from the back of the saddle around under his tail (which appears to be wrapped or braided). A matching loop runs from the front of the saddle across his chest. A second horse, less well preserved, is equipped with the same decorations. The falls of the irises are tucked and the standards twist to a point with a slight suggestion of detail. If I am right that they are irises--they are portrayed quite realistically--they predate the fleur d'lis of Clovis by a couple of hundred years.

One rather hopes they were made of cloth or gilded leather, as the pointed standards of the flowers are sharp enough to have poked the horse, had they been made of metal.



SEARCHING FOR *I. VERSICOLOR* IN NORTHERN MINNESOTA

Mary Duvall-Minnesota

On a hunt for the native *Iris versicolor* this summer, we took to the gravel back roads going north from our house. This area is primarily wilderness, containing lakes and large swamps throughout the lowlands, largely connected by very narrow roads, and occasionally passing through areas where water stands right up to the roadbed.

The network of roads is most confusing, even though marked with numbered streets or names, ending abruptly at farms with makeshift turnarounds, or gradually narrowing down to a single lane which led us right into a farmer's back yard. A county road dwindled down to a rutted track, fit only for all-terrain vehicles. There are no "Dead End" signs, so you have no way of knowing if the road connects with another or not.

In covering roughly 45 miles of roads, we found considerable color variation among the flowers, even in this small area. There are many large patches of *Iris versicolor*, usually inaccessible, and generally beyond narrow stretches of water. The irises sometimes covered an acre or more, creating a mass of blue hues. A very pretty sight. No irises are found where cattails cover the area. Although both are found where the water surrounds the plants, the irises are usually elevated on hummocks sitting above the water line. Some pond areas were covered with the beautiful white pond lily -- others contained large groupings of the yellow water lily.

Some very large individual clumps of irises were seen, occasionally with up to a dozen flower stems, although most had two to five stems per clump. The color pattern varies -- from large patches of irises having nearly the same color, to isolated small areas with great color diversity in a very few clumps. I was able to observe specimens that varied in color from rather light blue falls with faintly diffuse yellow signal, to a deep violet color with a much deeper yellow signal, and all shades of blue or purple in between. One plant showed a distinctly different color line in the style arms. There is considerable variation in petal size, but I didn't check on how varied the branching.

It is clear that *Iris versicolor* still grows abundantly in the back reaches of Kanebec County, and further north. There is no *Iris virginica* found here. I have never found it north of the Twin Cities, although this is the native iris found across Southern Minnesota. As the wetlands are drained, less and less of *Iris virginica* is found today.

(Ed. note: This article was received too late for the Fall, 1996 issue. Mary wrote: "I took a number of slides which roll was lost by the post office, so will need to take more next summer." Perhaps we can get an up-date with pictures for the next Fall issue.)

SIGNA DISPLAY GARDENS

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The following is the first listing of SIGNA display gardens: thank you all for responding to the request flyer. Please feel free to send me a note to update your listing or make any corrections. Also, it was too costly to send out requests to foreign members so please send me your information if you would like to be listed in the future. Send all display garden correspondence to:

Penny J. Aguirre
2345 Decatur Ave. N.
Golden Valley, MN 55427-3214
612-591-0495 (& Fax), email: agui007@tc.umn.edu

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Coastal Gardens & Nursery	
4611 Socastee Blvd. Myrtle Beach SC 29575 803-293-2000 (+ FX)	8 AM-2 PM Mon.-Sat., 1 PM-4 PM Sun. (Spring only). Commercial garden.
Sibs, LAs, brevicaulis, hexagona, japonicas, pseudacorus, sanguinea 'Kamayama', tridentata, verna, & virginicas.	
The Iris Gallery	
33450 Little Valley Rd Fort Bragg CA 95437 707-964-3907	Open daily from May 1st-June 10th, call other times. Beautiful setting amongst redwoods and Rhododendrons.
Sibs, Spurias, Species, PCIs, Bearded.	
Penny Aguirre	
2345 Decatur Ave N. Golden Valley MN 55427-3214 612-542-9447 (& Fax) agui007@tc.umn.edu	Call ahead. Perennial borders in sun and shade. Interested in gardening for butterflies. Mostly collector type garden but the irises are interplanted with other perennials.
A few bearded species, but primarily beardless species and hybrids. Sibs, LAs, JIs, cristatas, tectorums, lacustris, verna, prismaticas, graminea, spuria species, sanguineas, sibericas, typhifolia, setosas, lactea, fulvas, brevicaulis, versicolors, virginicas, pseudacorus, ensatas, laevigatas, & laevigatae hybrids.	
Tony Avent	
Plants Delight Nursery, Inc. 9241 Sauls Rd. Raleigh NC 27603 919-772-4794	Call ahead, weekdays only. 5,500+ different plants: commercial nursery. See March 97 <i>Horticulture</i> for more information.
Many species, no bearded.	
Don & Lela Avery	
Cady's Falls Nursery R.D. 3 Box 2100 Morrisville VT 05661 802-888-5559	Open May 4th-Aug 15th, 10 AM-6 PM (closed Sun. before July 1 & Sun. & Mon after July 1). After Aug 15th by chance or appointment. There is a rock garden, water garden & shady woodland garden as perennial beds. These are real gardens, not just display beds. Commercial Nursery.
Lots of Sibs. pseudacorus, hexagona, setosa, versicolor, pumila, chrysographes, ensata, & other odds & ends.	
Leo & Norma Barnard, Prop.	
Paradise Iris 507 Valley View Dr. Paradise CA 95969 916-872-5143	Open during bloom season 10 AM-5 PM, call ahead if traveling a distance, closed if too muddy or if they have business to care for. Dogwoods, red & white azaleas, fuschias, fems, lots of perennials, hostas, shrubs, bulbs, picnic area in big pines, orchids, fountains, & bird feeders.
3/4 acres of iris. reticulata, unguicularis, japonica (var. too), loreley, x paltec, pallidas (zebra, alba, aurea), TBs, BBs, SDBs, MTB, MDB, Arils, ABs, PCIs, LAs, Spurias, Sibs, JIs, pseudacorus (5), virginicas (7), ensatas, florentina, foetidissima, Holden Clough, Roy Davidson, and more.	
Rodney Barton	
#3 Wolters St. Hickory Creek TX 75065 817-321-6525	Anytime Sat. & Sun., after 6:30 on weekdays. Special arrangements for other times for groups & special events. Call ahead is a must. Grows many Texas native wildflowers that are allowed to grow in stands covering much of the 2 acre yard. A collector garden mostly.
About 30 species & forms (~1/3 not blooming size yet). Mostly beardless, a few bearded & bulbous species. Also a few non-iris irid species. He has over 200 named cultivars of various classes & LAs.	

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Alice D. & Louis G. Belling Misty Valley Farm 7414 Raiber Rd. Holland NY 14080 716-537-2798 TBs, MDBs, SDBs, JIs, Sibs, LAs, & species.	Wed.-Sun., 1:30 PM-5:00 PM. Call ahead for directions. 24 Formal beds, 7 abstract beds, plants around house, fence, & birdbath. Also statues, wildflowers, ferns, bird feeders, hibiscus, daylilies (300), lilies, monardas, etc.
Mary Betts Snow Brook Gardens RFD 1, 2030 Bridge Rd. Parkman ME 04443 207-876-3220 versicolor, siberica, ensata, pseudacorus, robusta, flavescens, x biversata, setosa, virginica and others. Also IBs, MTBs, Sibs, JIs, and her own Sibs.	Call or write ahead. Perennial Nursery, hardy zone 3 plants.
Anne Blanco White 72 South Hill Park GB-London NW3 25N	
Dana & Norma Borglum Borglum's Iris 2202 Austin Rd. Geneva NY 14456 716-526-6729 TBs, BBs, IBs, SDBs, Sino-sibs, Sibs, spuria, pseudacorus, LAs, I. dietes, JIs, & versicolors.	Late May & June: always open, July & Aug: Call ahead. Peonies (80 var.), many daylilies, commercial also.
William R. (Dick) Brunner 5620 Hayden Bridge Rd. Owensboro KY 42301 502-229-0154 TBs (40+), Arilbreds (30+), Louisianas (50+), Species (20+), cristatas, setosa, virginica, ensata, versicolor, pseudacorus, foetidissima, graminea, tectorum, laevigata, tridentata, dichotoma, siberica, fulva, giganteaerulea.	Anytime, call first. The garden is located in a 4 acres wooded site and only tended to every other weekend. Dick wants people to wear old clothes & shoes and call ahead so they know what to expect.
Gene E. Bush Munchkin PI 323 Woodside Dr. NW. Depauw IN 47115-9039 812-633-4858 genebush@netpointe.com 45 species, cultivars & hybrids of Iris, with an emphasis on the small or dwarf. A collector's garden, but the iris are blended through a woodland setting with other plants. A few Sibs, forestii, gracilipes 'Alba', sikkimensis, cristata, tectorum.	By appointment only. Call, write, or email. Located on the north side of a hill, terraced into three levels. Mostly woodland garden with Arisaema, Trillium, Tricyrtis, Hellebores, Anemone nemorosa, Asarum, & Primula as special interests. The woodland & rare/unusual plant nursery is located at a separate address.
George C. Bush Bush Gardens 1739 Memory Lane Extd. York PA 17402 717-755-0557 reticulatas, Junos, all of the bearded types, Sibs, JIs, versicolors, virginicas, tectorums, setosas, seedling of all of these.	Appointment needed. Call or write ahead. Commercial Nursery.
Marie Caillet 1216 Cedar Pine Lane, Oak Pt. Township Little Elm TX 75068 972-292-1154 Bearded, Spurias, Sibs, JIs, virginicas. Mostly Louisianas; most are hybrids, but there are always a few native species. Not that many species, but a great place to see LAs under various types of culture.	Garden borders the road, visit anytime. Most irises are grown in a landscape situation & not all are labeled. A beautiful pond with LAs and a few other water type irises. Some new introductions and seedlings of hybridizers.
Marie Cain Cain's Iris Garden's 124 W. 10th St. (123 also) Fairbury NE 68352 402-729-2913 TBs (over 1200), BBs, IBs, MTBs, SDBs, MDBs and seedling of all of these. JIs (29), Sibs(90), LAs (2, wants more), & species (19).	Best to call or write as they go to Lincoln for 4-5 days at a time. Welcome as long as you don't pinch old blooms. There is a large patio to sit & enjoy under big trees. It's Cool.

SIGNA DISPLAY GARDENS 1997

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Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Patricia Carson 6210 Klam Rd Otter Lake MI 48464 810-793-4151	After Mid May. No visitors before mid May. Call ahead for appointment. Grows rock garden/trough plants and also offers backyard, nursery grown plants to specialist growers of these wee and sometimes very demanding plants. Small clumps of gracilipes, cristatas, lacustris, pallida, prismatica, ruthenica, setosa, tectorum, variegata, wilsonii and a few other odds & ends of the genus.
Joan Cooper 212 Co. Rd. C Roseville MN 55113 612-484-7878	Call ahead if possible. Anytime is okay-daylight of course. Almost any species that will survive here from magnifica to ensata. Probably especially long on the versicolor-virginica complex.
Jim & Jill Copeland The Copeland Garden 78118 M-40 Lawton MI 49065 616-624-1968	Anytime, call ahead if you want them there. Hybridizing garden. lacustris, cristata, virginica shrevii, versicolor, typhifolia, pseudacorus, fulva, LAs, JIs (hybrids) and interspecies hybrids. TBs, IBs, SDBs, and Sibs.
Howard & Ruth Crosby Ecotat Trust (formaly the Crosby Garden) PO Box 6300 Herman ME 04402-6300 207-848-3485	Visitors are welcome anytime. The Crosby's are in residence at the gardens. Their phone no. is 207-848-3873. Ecotat Trust was formed in 1995 to preserve the ecology & wildlife habitat of the area. The 89 acre property has an abundance of flowers, shrubs, trees & wildlife. The Bangor Nature Club Library is located in the house as well. Sibs, JIs, Spurias, aphylla, carthaliae, chrysographes, cristata, delavayii, forestii, graminea, pardoncanda, prismatica, pseudacorus, pumila, reticulata, LAs, sanguinea, tectorum, & versicolor.
Dick Cryberg 9531 Robinson Rd. Hardon OH 44024-9101 216-285-3287	Call ahead, except Thursdays 12-8. Bearded (over 100 colors), JIs (over 50 var.), pseudacorus (3 colors), Sibs (3+), LAs (3+), & some unknown beardless.
Christopher & Amelia Darrow Olallie Daylily Gardens HCR 63 Box 1, Marlboro Branch Rd. South Newfane VT 05351 802-348-6614 darrowcse@sover.net	800 cultivars of daylilies & a dozen daylily species. 400 high bush pick-your own blueberries. 6 acre display gardens: daylilies interspersed with hundreds of perennials including woodland, meadow, & rock garden plants. Sibs (50), pseudacorus, TBs (10+), versicolor, JIs (several), pumila.
Lou Emmons Blossom Bend 7805 Tryon Grove Rd. Richmond IL 60071 815-678-4383	Call ahead. Many display gardens featuring hundreds of perennials as well as iris. They sell perennials, including iris species. brevicaulis, cristata, chrysographes, graminea, fulva, lactea, pseudacorus, sanguinea, setosa, spuria, tectorum, typhifolia, versicolor, Sino-Sibs, and Sib & JI hybrids.
James L. Ennenga 1621 n 85th St. Omaha NE 68114-1427 402-391-6337	Usually here. Hybridizing for rebloom. cristata, versicolor, virginica, setosa, missouriensis, spuria halophila & subbarbata, typhifolia, fulva, & brevicaulis.
Peggy Ephland 22426 Frisbie Ln. Palo Cedro CA 96073 916-547-4959	None-garden open anytime. A small, non-commercial garden. She thinks she has over 500 iris. She is hybridizing, mostly MTBs. SDBs, IBs, BBs, MTBs, TBs, ABs, bearded species of each group, PCIs, LAs, JIs, Sibs, setosa, cristata, versicolor, reticulata, danfordiae, spuria, unguicularia, pseudacorus, aphylla, astrachanica, & variegata.

SIGNA DISPLAY GARDENS 1997

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Chuck & Mary Ferguson North Pine Iris Garden 308 N. Pine St. Box 595 Norfolk NE 68702-0595 402-371-3895	May-Sept. Call ahead, they're usually in the garden: cool mornings & late afternoons. Raised beds & gravel paths. All types of bearded iris, Sibs, Arilbreds, Spuris (5), Daylilies, Solomon Seal, Hosta. For display: Clematis, Roses, many perennials, bushes, vines (including grapes), & dwarf conifers. brevicaulis, graminea, kiochii, lactea, laevigata, pseudacorus (alba, bastardi, double), siberica, sintenisii, tectorum, tectorum 'Alba', versicolor, typhifolia, virginica, & pallida variegata (alba & aurea).
Bill & Jeanne Ferrell 30663 Slow Lane (PO Box 698) Philomath OR 97370 541-929-3448	Call ahead to confirm that they are home & to get directions. Iris and daylilies in raised beds and containers. They're out in the forest. PCN species and hybrids, Sibs, Cal-Sibes, JIs (ensata), & laevigata.
Barbara Flynn 1332 232nd PL NE Redmond WA 98053 206-868-4344	Between 8 AM and dusk. Perennials and a white garden. The garden has been featured in 'Fine Gardening' and several local newspapers. Ann Lovejoy, Ken Druse & Pamela Harper have photographed this garden. Medians, TBs, Sibs, Spurias, PCIs, laevigatas, many small species. Tries Japanese but the garden is too sandy for great performances.
Carolyn Foster PO Box 380 Palo Cedro CA 96073 916-547-5118	Best to call for directions. Small ponds out of fake rocks (old curbs & styrofoam with coats of cement). TBs, IBs, Dwarfs, MTBs (her favorite), Sibs, LAs, PCNs, Spurias, & Arilbreds (lots of starts from seed).
Robert G Gamlin 99 Rockingham Rd, RFD 1 Londonderry NH 03053-2211 603-434-6459	Call ahead, usually available 10AM-4 PM daily, no pets please. A collector's garden. Other plants include Trilliums, Hepaticas, Primulas, Helleborus, many wild flowers, color variants of ginger, dwarf shrubs, Rhodos & Azaleas. Naturalized setting except for rock garden. Woodland species Iris: graminea, ruthenica, gracilipes, cristata, verna, tectorum, siberica. Water loving Iris: versicolor, Louisianas, pseudacorus, ensata, laevigata, prismatica. Also some dwarf & median Iris.
Bill & Ada Godfrey Hermits Medlars Walk 3 Pierce St. (Rte 140) Foxborough MA 02035 508-543-2711 hwwalk@fcl-us.net	Visitors welcome anytime. Call ahead if you want them there. Info in workshop. Commercial Nursery. They back up to a swamp & plan to use pathways alongside for water lovers. Plenty of pathways (hence the name). Species: ruthenica, gracilipes, cristata, arenaria, virginica, siberian, prismatica, graminea, ensata, pumila, cathalinaea, aphylla. All types of bearded (display garden for Dwarf & Median Iris Societies), Sibs, JIs, & LAs.
Joseph John Griner 25 Mill Chase Rd. Southampton NJ 08088-9640 609-859-9251 JOEMAGGIE@MSN.CO	After 4 PM Mon.-Fri., After 12 PM Sat-Sun., call ahead. Pinelands of NJ, growing in sand in wet beds-on plastic. TBs, MBs, MTBs, SDBs, SIBs, JIs, LAs, versicolors, Aquatic Alliance, cristata, & giganteaerulea.
Dale L. Hamblin 152 Idlewild Mundelein IL 60060 847-949-6822	Stop by anytime-day or night, friendly Judges welcome too. Tremendous collection of Siberians and seedlings. Large collection of smaller flowered SA-RE in bearded for work in MTBs and tet bearded species also. LAs, JAs, MDBs, MTBs, SDBs, BBs, IBs, TBs, Sibs, and Bearded & Beardless Species.

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Jim & Nova Harper 416 N. Second Iola KS 66749-2544	Sundays after 10 AM (superbest), After a heavy rain (next best): flowers will look terrible but he'll be there. Anytime, garden is in the back (next to next best). Best: Mon-Sat 9AM-Dark, Sun 10AM-Dark. Herbs & Daylilies. They are amazed at the number of plants they can get in a yard 30' x15' & 50' x 18'. Most of the Irises & daylilies are marked. The garden is always open, just like his Dads (Allen Harper); so much the better if you find someone there. fulva, tectorum (blue & alba), graminea, sogdiana, orientalis, reticulata, dutch iris, pumila, pseudacorus. Some Louisianas, Japanese, TBs, SDBs, & MDBs. Seedlings of carthilinea, musclamania. Sdigs of carthilinae, musclamania, halophila, sintensii, watii, foetidissima, brevicaulis, lactea var. hyacinthiana. Seedlings of daylilies as well.
Ms. Frances E. Hawk Garden Address 4913 1/2 Woodland Park Ave. N Seattle WA 98103 206-633-4240 SDBs, IBs, BBs, MTBs, TBs, PCNs, SIBs, PCNs, Cal-Sibes, foetidissimas, prismaticas, cristatas, & japonicas.	Call 24 hrs ahead (after 5:00 PM). Garden is located at a relatives house. Collections of Campanulas, hardy Geraniums, Lavenders, variegated plants, & Sisyrinchiums.
James E. Henrich Denver Botanic Gardens 909 York St. Denver CO 80206 303-370-8025 303-370-8196 Fax The Denver Botanical Gardens' iris collection has representatives of all species groups and types.	Memorial Day-Labor Day: 9 AM-5 PM (W,Th,F; until 8 PM). Admission Fee. Public display garden with rock alpine, iris, peony, daylily, aquatic, orchid, bromeliad, ornamental grass, annual, perennial, tropical, Pre-columbian, and water-smart/xeriscape collections and a Japanese garden as well.
Emma Hobbs 3303 Westfield Rd. Noblesville IN 46060-9520 317-896-2800 MDBs, SDBs, IBs, MTBs, BBs, TBs, Sibs, some species, Arils & Arilbreds.	Call ahead is best but not required, might not be home for 'Drop Ins'.
Marion Horner Potosi Plenteous Perennials 101 4th St. Potosi WI 53820 608-763-2470 bucharica, cristatas (6), reticulatas (7), graminea, foetidissima, germanica (45), pseudacorus (3), Sibs (50), setosas (3), tectorum (2), xiphiodes, ensatas (20), chrysographes, innominta, gracilipes, Katherine Hodgkin, & bearded (50).	Call ahead to make sure he's home & expecting you. Hundreds of perennials; all the commons ones and many not seen elsewhere.
Howard & Kim Hughes Mill Creek Gardens 210 Parkway Lapeer MI 48446-2385 810-664-5525 MDBs, SDBs, BBs, IBs, MTBs, TBs, Sibs, JIs, & Species.	Call ahead. Dwarf Display Garden (1800+ varieities), HIPs Display Garden, 100s of seedlings.
Karol & Dot Hujsak 3227 S. Fulton Ave Tulsa OK 74135 918-747-6926 Many bearded, LAs, Sibs, Spurias, species, PCNs, ABs, & a few JIs.	If you call ahead they will try to provide refreshments. Lots of trees, perennials, hollies, etc.
Donald Humphrey, Garden Mg. Culpepper Garden Retirement Home 4435 N. Pershing Dr. Arlington VA 22203 703-528-0162 Bearded cultivars (many DWs), aphylla, bracteata, bucharica, chrysophylla, clarkei, cristata, danfordiae, dichotoma, dougladiana ?, ensata, fulva, innomenata, japonica ?, lutescens, milesii, missourensis, x paltec, prismatica, pseudacorus, reticulata, siberica, stylosa, spuria subbarbata, subbiflora, tectorum, setosa, typhifolia, variegata, & verna. Other Iridaceae: Belamcanda, Crocosmia, Crocus, Cypella (2), Dierama (2), Gelsineayurea, Gladiolus (2), Schizostylis, Tritonia (3).	Check in at the front desk as a garden visitor. 16 seperate plantings of many rare & unusual species of trees, shrubs, perennials, grasses, bulbs & some annuals. Clematis species, Kniphofia species (16) & cultivars, lots of lily species, cvs and a good collection of Thalictrums.

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Beatrice D. Idris Raven Nursery 22370 Indianola Rd. Poulsbo WA 93370 360-598-3323 setosa, missouriensis, ensata, chrysographes, tenax, innominata, versicolor, ochroleuca, foetidissima, japonica, tectorum, cristata, siberica, pseudacorus, douglasiana, & PCI hybrids.	Spring/Summer/Fall. By appointment only, call ahead. Large collection of daylilies and rare and unusual maples (Acer sp.) in a beautiful wooded setting.
B. Charles Jenkins 9426 E. Topeka Dr. Scottsdale AZ 85255 602-585-6390 Spurias and species.	Call ahead, also can be reached at Shepards Iris: 602-841-1231. Sonoran Desert.
Ted, Marianne & Joy Jessop 34619 S Bernard Dr. Tracy CA 95376 209-836-2871 Grow or attempt to grow most kinds. They are experimentalists. They grow 1500-2000 plants (50% bearded, 20% beardless, 20% seedlings, & 10% species). Seedling effort on PCNs & hybrids, ABs and TBs.	Call ahead-don't be offended if you have to tour yourself. (plants are marked). Roses, Cactus, Trees including some fruit hybrids (pluots & apriums), ducks, geese, chickens & rabbits.
Paul & Ruth Johnson Standard Falls Iris Gardens Rte 9 North Box 0037 Upper Jay NY 12987-9601 518-946-2584 sanguinea, setosa, spuria, versicolor, tectorum, aphylla, biversata, brassii, chrysographes, cristata, foetidissima, fulva, laevigata, pallida, & pseudacorus.	Call ahead or send a note. A two hour drive from the Montreal Botanical Gardens. It's flooded at least once a year. In 3rd generation, so plantings are established. In the high peaks of the Adirondack Park, NY.
MaryAnn King Pine Ridge Gardens 832 Sycamore Rd. London AR 72847 501-293-4359 unguicularis, lactea, ensata, tectorum, cristata, prismatica, verna, japonica, versicolor, virginica, missouriensis, setosa, tridentata, & misc. hybrids of Sibs, JIs, and LAs.	Must call ahead. Rock gardens, bog garden, shady & sunny perennial gardens.
George S Krasle 2725 NE 143rd St. Seattle WA 98125 206-362-5024 TBs, SDBs, MDBs, & lots of species.	Daylight, call ahead. Other plants, both indoors and hardy: cacti, orchids, bulbs (South African, tropical American, native, etc.), succulents, etc.
Elena Laborde 3203 Fairway Dr. Soquel CA 95073-2777 408-476-6451 TBs, IBs, BBs, SDBs, JIs, LAs, SPs, SIs, & japonica.	Call ahead. Her garden is mainly TBs, but hopes to have more species iris in a couple of years.
Susan Lambiris Raleigh NC 27606 919-839-0092 Pacific Coast Hybrids (Hopes they are still alive!), LAs, Bearded, assorted beardless species & hybrids (including some Calsibes).	Please call ahead to check for survival of plants. Interesting collection of rain-lilies (habranthus & zephyranthes species & hybrids).
George & Carla Lankow 11118 169th Ave SE Renton WA 98059 206-235-7065 Over 400 beardless Irises, not including the Sibs (28C & 40C) & JIs. A good representation of most types of species including; evansias, versicolors, virginicas, pseudacorus, 20-25 different bearded species etc., LAs and median bearded also.	Call ahead-available most of the time. Large rock or alpine garden, woodland garden, perennial bed, shrub border.

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Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Lewis & Adele Lawyer 4333 Oak Hill Rd. Oakland CA 94605 510-638-0658	Spring-peak on April 15th most years. Call ahead. They hybridize CA iris. The garden features this group but is framed by Azaleas, Rhododendrons, Camelias, Clivia (Clivia miniata): outstanding at CA time.
Principally CA (PCI) but many species: confusa, japonica, wattii, nada, cristata, graminea, pumila, rossii, sanguinea, suaveolens, subbiflora, tectorum, unguicularis, Cal-Sibes, Spurias, TBs, medians, arilbreds, JIs & Sibbs.	
Tom Tadfor Little 3245 Louraine Cir. Santa Fe NM 87505-5043 505-424-8983	Call ahead. Some hostas. He is the only Hosta Society member in New Mexico.
Species; pumila, aphylla, stonifera, hoogiana, missouriensis, lactea, cristata. TBs, Medians, MDBs, pure Arils, Arilbreds, Arilbred medians, LAs, Sibbs, reticulatas.	
Barbara Mann 32 Lucero, Eldorado Santa Fe NM 87505 505-466-4818	Call ahead. Her garden is designed to use as little water as possible in an area where water is becoming precious. It is also totally organic.
missouriensis (several varieties). Bearded: TBs, SDBs, MDBs, IBs, MTBs, BBs, & ABs.	
Kathy & Curt Marble 84 Littleton Co Rd., PO Box 287 Harvard MA 01457-0287 508-456-8086	Call ahead. Irises integrated into the landscape rather than rows. Collection of trees, shrubs, etc.
Mostly Sibbs, JIs, pseudacorus, & versicolor. Not many species, but close to the Schneider's garden if you are visiting there.	
Lynn F. & Peter C. Markham Bearded Irises for Lynn & Peter Markham 61 Upland Ave, PO Box 154 Lunenburg MA 01462 508-582-6445	Please call ahead (a day before if possible) to make arrangements, they are not always there on weekdays. Lots of New England ROCKS (does that count?).
Almost all classes of bearded. They have a large and growing collection of aphylla clones, both collected and cross-pollinated seedlings as well as a large number of aphylla/cultivar hybrids.	
Paul Martin & Susan Eubank 710 Forst St. Golden CO 80403 303-277-9458	Call ahead for directions & tour, daylight hours. Small City Garden in a semi-naturalistic style with many western natives. Large perennial beds with two beds for irises; one peat bed for Louisianas and 40C Sibbs & the other is a PCI bed (experimental at this point). Also some dwarf bearded, Sibbs, Spurias, & 1 LA.
aphylla, attica, bracteata, brevicaulis, bucharica ('alba'), bulleyana, chamaeiris, chrysographes, chrysophylla, clarkei, cristata, cycloglossa, decora, delavayi, douglasiana, fernaldii, foetidissima, forrestii, fulva, hartwegii, hookeri (set. canadensis), iberica, innominata, korolkowii, lactea, laevigata, lazica (pots), nelsonii, pallida, paradoxa forma choshab, prismatica, pseudacorus, pumila, purdyi, reichenbachii (yellow fm), reticulata, sanguinea, siberica, sintenisii, cathaliniae, spuria var. subbarbata, stononifera, suaveolens, subbiflora, tectorum, tenax, tenuissima, tridentata, typhifolia, unguicularis (pots), versicolor, virginica, wilsonii & more.	
Jane McGary 33993 SE Doyle Rd. Estacada OR 97023 503-630-3339	Call one day ahead. Large collection of rare bulbs.
reticulata, Juno, regeliana, & bearded species.	
Joe & Helene Mertzweiller Mertzweiller Garden 9266 N. Parkview Dr. Baton Rouge LA 70815 504-925-5448	Call ahead to check on bloom & set a time to visit. Includes new hybrids.
Louisianas, mostly hybrids.	

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Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Rev. & Mrs. Henry Millhorn Hoot Owl Hollow Nursery 4308 Rhoric Rd. Athens OH 45701 614-664-2409 hootowl@eurekanet.com Sibs, LAs, Spurias, TBs, JIs, Sino-Sibs, Cal-Sibes, some dwarfs, laevigatas (species & hybrids), pseudacorus (& hybrids), versicolor, prismatica, setosa, fulva, & others.	April-Sept. May-June for most iris, but some are rebloomers. Saturday 10 AM-4 PM or by appointment. 750 Hosta var., 1000 daylilies, 750 herbaceous peonies, 150 tree peonies, waterlilies, hardy cactus, native shrubs, sun & shade perennials, grasses, bog plants, daffodils & poppies on 5 acres of display gardens.
Donald Mosser 592 Kershaw Dr. North Augusta SC 29841 803-442-5993 dmosser@southconn.com hexagona, verna, pseudacorus, tectorum, cristata, virginica. Also bearded, Sibs, LAs.	Call ahead (before 9 PM).
Roger R. Nelson Iris Country 6219 Topaz St. NE Brooks OR 97305 503-393-4739 Large historic collection of Siberians. Species of Bearded, Siberians, Spurias & some PCNs.	Anytime, call ahead. Well landscaped with irises planted in landscape settings with rocks, shrubs, etc.
Diane Nicholls Nicholls Gardens 4724 Angus Dr. Gainesville VA 22065 703-754-9623 Bearded hybrids, Sibs, LAs, JIs, variety of beardless species in sun & shade.	Call ahead to make sure someone is there. Small pond, sun & shade gardens. Large variety of trees, shrubs, & perennials in landscape settings. Full season interest.
Dave Niswonger Cape Iris Gardens 822 Rodney Vista Blvd. Cape Girardeau MO 63701 573-334-3383 Spuria species, pseudacorus (whites, chartreuse, ivory, etc.), I. setosa, 40C sibs, Tet Cal-sibes, versicolor, typhifolia hybrids, lactea, ensata & several bearded hybrids.	Call ahead, but you may look around on your own. Primarily a hybridizing garden.
Will Plotner Wildwood Gardens PO Box 250 Molalla OR 97038-0250 503-829-3102 Species include: douglassiana (& dwarf form), missouriensis, tectorum (2), pseudacorus (including Waddick's #7 from China), laevigatas, ensatas, japonicas, tenius (local Clackamas Iris), tenax (lt & dk form), tenax gormanii (rare yellow version found only in the scoggins creek area of OR).	Call a day or two ahead so he can show you around. Nice garden along the Molalla river in the southern part of Clackamas Co., located 40 to 45 miles from both Portland & Salem.
Neal & Rose Pohlman Pohlman Pleasure Gardens Rte 2 Box 5, 1209 8th St. Stanton NE 68779 402-439-2905 TBs, BBs, SDBs, IBs, Sibs, Spurias, versicolor, pseudacorus, virginica, Vesper Iris, foetidissima, graminea, lactea and others.	Please call ahead to make sure they are home. Many perennials, raised beds for some iris and lilies, good assortment of Hosta (new var.). Seedlings of bearded, beardless, & daylilies. Lots of shade and pine trees and birds.
Lorena M Reid Laurie's Garden* 41886 McKenzie Hwy Springfield OR 97478 541-896-3756 Japs, Sino-Sibs, Water Irises: versicolors, laevigatas, pseudacorus, other species: prismatica, setosa, some CAs, Interspecies hybrids: Cal-sibes, versi-laevs, sibtosas, etc.	Welcome anytime, stay on paths, call ahead if you want to talk to someone. * She is now retired (right!) except for her own (Reid) introductions.

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Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
James E. Rhodes 2260 Country Club Vista St. Glendora CA 91741-4057 818-335-2165	April & May for best bloom. Call ahead for visits, Nov.-May only. Warm-slope microclimate adjacent to a southern CA interior valley; 1000' elev. & a warm USDA zone 9. Describes his yard as a Darwinian jungle rather than a garden. Only the strong survive outside of pots. germanica, kochii, pallida, subbiflora, setosa, sanguinea, tenax, pseudacorus, versicolor, virginica, brevicaulis, graminea, monnier, sintensii, foetidissima, unguicularis. Hybrids: Bearded (5), Sibs (8), Californicae (8), LAs (4), Spuria (3), Dutch (2). Other Iridaceae: Acidanthera, Alophia, Anomatheca (2), Aristeia, Babiana, Chasmanthe, Crocosmia (2), Crocus (3), Cypella, Dietes (4), Freesia (2), Geissorhiza, Gladiolus, homeria (3), Ixia (5), Lapeirousia, Melas phaerula, Moraea, Orthrosanthus, Romulea (2), Sisyrinchium (2), Sparaxis (5), Tritonia, Watsonia (3).
Colin Rigby 18341 Paulson St. SW Rochester WA 98579 360-273-0946	Call ahead
Vicki & Adolfo Rodriquez Isle of View 28681 River Trace Dr. Folsom LA 70437 504-796-3534	1 AM-3 PM, call for appointment & to have a map faxed. All plants are native to the area. A meditation garden may be of particular interest. They also have a wildflowers area and native Azaleas. Also Three peacocks. LAs: Bold Pretender, Ann Chowning, Fast Traveler, Gulf Shores, Colorific, Professor Ike, Winter Encour, Easter Love, Bajou Classic.
Larry Rue Native American Botanical Specialties 17 Common St., PO Box 814 Petersham MA 01366 508-724-3241 (& Fax)	Best to call ahead if you want to see him: 9 PM-11PM, usually around for drop ins. Native species of herbaceous perennials & their Asian counterparts., esp. shade tolerant ones. Some alpine, Aquilegias, Potentillas (particular interest), Anemones, Ranunculus, Trollius. All species, no hybrids, Z5. Most are seedling size as of 1997. Wait 3-4 years for spectacular show.
Marty Schafer & Jan Sacks Joe Pye Weed 337 Acton St. Carlisle MA 01741 508-371-0173	Call ahead, please. Hardy perennials of all kinds in garden settings.
David & Barbara Schmieder 566 Old Rd. to Nine Acre Corner Concord MA 01742 508-369-3383	Peonies, Clematis, many named bearded & beardless irises, wildflowers, & Rhododendrons. cristatas (16), vernas, versicolors, pseudacorus, siberians (40C), minuteaurea (3), ruthenicas, prismaticas, setosas, tectorums, typhifolias and many others.
Stephen & Marcia Smith 720 Oxbow Rd. Orange MA 01364 508-544-6266	Call ahead if possible but garden is open for drop ins. Eves & Weekends best. Two small ponds. Bearded, Sibs, Japs, LAs, many species; especially water lovers.
Richard C. Sparling 18016 Lafayette Dr. Olney MD 20832 301-774-4151	None. All kinds: over 1800 varieties including about 50 species, mostly bearded.
Don & Ginny Spoon Winterberry Gardens 1225 Reynolds Rd. Cross Junction VA 22625 540-888-4447	Call first but the gate is open, its okay to just come by (many people do). 2 acres interplanted with many different perennials, shrubs & trees. Sculpture & 1000 cultivars of daylilies. All types of bearded, sibs, ensata, species, rebloomers, & historic medians. ~3,000 cultivars & over 60 rebloomers.

Name & Address Phone no. & email Type of Irises	Best Visit Time & Requirements Unique Garden Features
Robert Strohman 1830 Alfresco Pl Louisville KY 40205-1808 502-451-4779	Peak bloom season for species is early April to May, TBs mid May, JIs early June. Call ahead best, if no answer; come by & leave a note. Small city lot with back & front yard gardens. In addition to irises, he has lots of non-iris irids as potted plants. Also a small water garden/fish pond and a few daylilies & hostas. Dwarfs, IBs, TBs, Spec-X, aphyllas, brevicaulis, bucharica, chrysographes, cristata, danfordordiae, delavayi, florentina, foetidissima, fulva, germanica, graminea, hoogiana, lacteas, laevigatas, nertschinskia, orientalis, pallidas, prismaticas, pseudacorus, pumila, rosii, sanguinea, siberica, sintenisii, tectorums, trojana, typhifolia, versicolor, & virginicas.
Susan Sussman Box 448-100 Nardin Rd. Lake Peekskill NY 10537 914-526-3443	Call ahead. Windy mountainside location, lots of granite, not much soil, a growing collection of rock garden plants. Sibericae, PCNs, graminea, halophila, pseudacorus, tectorum, ensata, biversata, chrysographes.
Bob Thomason Okie Iris Garden 329 NW 81st St. Oklahoma City OK 73114-3205 405-840-0615	By appointment only. setosa, Holden Clough, x Pal tec, virginica, tectorum, japonica, chrysographes, foetidissima, unguicularis, versicolor, & tuberosa. TBs, IBs, BBs, SDBs, MDBs, Japs, Sibs, Spurias, reboomers, Space Ages, LAs, Arils.
Dennis & Merritt Van Landuyt Rte 3, Box 359 Versailles MO 65084 573-378-5565	Call or write ahead. Remote rural location. Beardless, Irids, Arilbreds, Japs, & Bearded.
Bob Ward 54 Belmont Dr. Little Rock AR 72204 501-664-0013	Best to call. Japanese maples and Bamboos. LAs, Pacificas, Cape bulb irises, & other species.
Guy, Debby, & Andy Wheeler Fox Brook Iris Farm 90 Call Rd Colrain MA 01340 413-624-8800	Call ahead. Andy specializes in iris setosa and is hybridizing. Trying to get hardy PCNs as well. A little of everything; species include tectorums, cristatas, setosas, interspecies crosses, laevigatas, versicolors, & virginicas.
John W. White Jackson Hill Gardens 193 Jackson Hill Rd. MInot ME 04258-4413 207-345-9532	Most Anytime, but call first. Hostas, perennials. SDBs, Intermediates, TBs, MTBs, JIs, Sibs, Sino-Sibs, laeveigatas, versicolor, versatas, Cal-Sibs, & PCIs. Hybridizer.
Verona Wiekhorst 4855 Santiago Way Colorado Springs CO 80917-3745 719-596-7724	Please call ahead. Display garden for Historic Iris Preservation Society, 66' X 4' Redwood terraced beds, 3 raised beds. pumila, setosa, pseudacorus, bulleyana, versilaev., virginica, missourensis, cristata, barthii, lutescens, variegata, x paltec, subiflora, Sibs, aphylla, tectorum, tenax, typhifolia, belamcanda, lactea, & sanguinea.
Jean G. Witt 16516 25th N.E. Seattle WA 98155 206-362-9206	9 AM-4 PM Penstemons, natives. PCNs, sinosiberians, diploid antique bearded, MTBs, misc. beardless species, Cal-sibes, & I. unguicularis (Jan-March).

Name & Address
Phone no. & email
Type of Irises

Best Visit Time & Requirements
Unique Garden Features

Jack & Jan Worel
Holly Lane Gardens
10930 Holly Lane
Osseo MN 55369
612-420-4876

June for species. May-July for other Iris.

Open every day except Mondays.

Country setting in wooded area. Display gardens and commercial nursery of Iris, Hosta, & daylilies.

Species: Bertha Fabel, Roy Davidson, ensata variegata, pseudacorus, sanguinea, sibericas, versicolors, virginicas, missouriensis, florentina, versilaev, pallida & others. TBs, MTBs, BBs, IBs, historicals, Sibs, & JIs.



Drawing of Pacific Coast Hybrid iris by Sue Reid

Collecting *I. prismatica* in Exeter, NH

Jan Sacks -- Carlisle, MA

Part of the fun of working on the SIGNA Seed Exchange is the three or four days in January when about twelve of us gather to sort seeds and fill orders. The chatter around the table is invariably about irises. One of the people who has helped every year I've been involved is Bob Gamlin, a quiet fellow, good gardener, rock gardener and iris grower. I had never met him before these gatherings. One day talk turned to *I. prismatica*, one of my favorite species. It's been easy for me to grow in various types of conditions, from wet to dry, full sun to semi-shade. It has what many consider to be an unfortunate habit of "running". It is not a clump former but has stoloniferous growth (though not invasive). I have chosen to accept this interesting growth pattern and interplant *prismatica* with daffodils, lilies and other kinds of bulbs and include some type of perennial ground cover like variegated creeping euonymus or ajuga. Getting back to Bob, he told us of a patch of *I. prismatica* on the corner of a state highway in Exeter, New Hampshire. He described the sea of blue when they are in bloom and lamented that the highway was under construction and the plants were in danger.

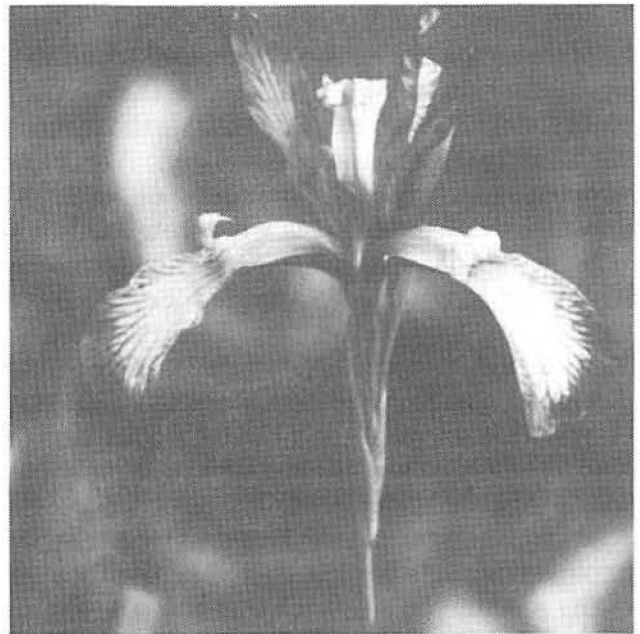
The following summer, armed with Bob's directions, Marty Schafer, Darrell Probst and I went hunting wild *prismatica*. I had always wanted to see what they might look like growing wild. They were just where Bob said--there was a highway, an intersection with a traffic light, and below the grade of the road there were *I. prismatica* growing in full sun, in very wet sandy soil together with a vigorous stoloniferous grass which grew about 12" tall, sundews, poison ivy, and the most lovely pale pink terrestrial orchids which were about 6 inches tall--sheets of them. All five of these were growing in a strip of about 50 feet between the forest and the road. On the very edge of the forest, in the wettest spots were *Iris versicolor* already past bloom. When I say the soil in which the *prismatica* were growing was sandy and wet, it was really awful soil, dense, soggy, almost airless soil, with water sitting on top in a few spots. There was already some destruction by the construction crews--large areas with big tire tracks where nothing grew anymore.

We began examining several flowers of *prismatica*, looking for variation. In my garden there are white, light blue, purple, maroon, and pink flowered forms gathered from many sources. I thought we might find a range of colors in this wild patch, but all the flowers were about the same--a very nice mid-blue--deeper and bluer than in any of the *prismatica* I was growing at home. There was considerable variation in the patterns, however. Some flowers had larger white and yellow signals, some had more veining in the signal with more or less yellow. The shapes also varied -- some had longer hafts with small or long pendant falls and some had shorter hafts creating a really nicely formed flower. The number of branches and buds varied also. There were larger and smaller flowers but it was impossible to know how much this had to do with culture and how much with genetics. Most of the plants "ran" in the typical stoloniferous way of *prismatica* with a very wide open habit--one leaf fan here and another four to six inches away. There were, however, a few that seemed more compact or clump-like.

Considering the large number of plants in this location and the fact that they all seemed in imminent danger we dug up pieces of several plants -- trying to get representatives of.

most of the variations. We probably took twelve different clones. I feel good about our decision to dig these plants, because when Bob came to the Seed Exchange work-day this year he told us that the entire area where the *prismatica* was is now paved over with blacktop.

All of the transplants were grown in pots and planted in the ground after a couple of months. All survived and we are now evaluating them. Last year was their first year of bloom so it will take some time to pick out the best ones. We are most excited about the one with the shortest stamens. Seed of these plants was offered in this year's seed exchange and you might want to look for them again next year.



1996 Seed Exchange

Jan Sacks & Marty Schafer

This was a fun year for the Seed Exchange. We had outstanding seed including collections from South Africa made by Panayoti Kelaides and from Yunnan and Szechuan Provinces in China made by Darrell Probst. For fifty cents you may have the chance to grow something that has not been in cultivation before.

Before going on to the statistical details, and while we still have your attention, the plea comes first. We want MORE, MORE, MORE!!!! The most popular seeds in the exchange were collected or hand pollinated. If you have access to irises or irids in the wild, please try to collect some seed. Just because it is common and everyday to you does not mean it isn't precious to someone in another part of the world. If you are growing irises in your garden which you know to be pure species, please make a few hand pollinations for the seed exchange. If you have only one clone, for example, of *I. timofedjewii*, self it. If you have more than one clone, for example of *I. pallida*, then hand pollinate between two. This will likely produce plants of greater vigor than selfing. In the 40 chromosome siberians we especially need hand pollinations of known pure species so that we can perpetuate their integrity. IN ADDITION, we desperately need seed of arils (for which we had the greatest number of requests for the number of selections available). Bearded species are always in short supply--especially the aphyllas. PLEASE, PLEASE, PLEASE take a few minutes this season to add to the SIGMA Seed Exchange.

To everyone, and especially novice seed collectors and pollen daubers, it is important that SIGNA try to have its seed labeled as accurately as possible. It is always a good idea to look up a description of a species (Mathew, The Iris is always a good reference) to confirm that your flower, plant, seed look like the description. For example, Section *Spuriae* seed has a very distinctive papery covering. We have occasionally received seed labeled as spurias which were clearly not that type of seed. If you have seed you want to send but have some doubts as to whether it is what you think it is, just let us know there is some question and we will include it on the list with a question mark. In addition, it is important to realize that when you grow seed of named clones, for example, seed from the *versicolor* Kermesina, it should not be labeled "Kermesina" once you plant the seedlings. These are now "From Kermesina" or some other label which communicates that they are not clones of the original plant but seedlings of it. Labeling iris species both in the garden and on the Seedlist is not an easy task and we hope to write about this subject for the Fall SIGNA. If anyone else would like to address how they deal with proper labeling, perhaps we could get a dialogue going.

Now for the statistics: For the 1996 Seedlist we filled 299 orders and took in #3148. The expenses were up a bit this year because the seedlist is getting so long that we have to put extra postage on it, and we decided to mail out the seed in bubblepak envelopes because we had a few complaints about crushed seed last year. We were especially pleased to have more donors than ever, 73, and this included many new ones. We can't thank everyone enough who send in seed -- it is truly a worldwide effort.

The most popular items on the list were generally the collected seed. Here is a list of the most requested items--with over or just under 50 requests each:

- 96R409 -- ruthenica var. nana collected in Zhongdian, Yunnan Province China
by Darrell Probst
- 96R412 -- verna 'Eco Snow Bunting' from Darrell Probst
- 96Y474 -- Tetra-Calsibe Hybrids from Tomas Tamberg
- 96J041 -- bulleyana collected in Nappa Hi, Yunnan Province China
by Darrell Probst
- 96J046 -- chrysographes, black from Lorena Reid
- 96J049 -- delavayi collected in Langashan Mountains west of Dali, Yunnan
Province, by Darrell Probst
- 96J054 -- unknown species, probably chrysographes collected northwest of
Wolong, Sichuan Province, China by Darrell Probst.
- 96F033 -- iberica ssp. elegantissima from Andros Orosz
- 96Z511 -- Dierama pauciflorum collected in the Republic of South Africa on the
road to Naudes Nek by Panayoti Kelaidis.
- 96N302 -- virginica with black stem and pink flower from Betty Bunting.

Anyone who is planning a seed collecting trip can apply to the SIGNA Seed Chairs for a grant, these are small but many trips are made up of just such small grants.

I. ruthenica

Michio Cozuca - Japan

Since many, many years ago, maybe since before the II war, an old fashioned alpine plants grower has a small (low) iris with small flowers very similar to those of *I. sanguinea*. Its leaves 3-4 mm wide and 10-15 cm long, and flowers 3-4 cm in diameter on a very low stem about 5 cm. It is called "Manshu ko-ayame". "Manshu" means Manchuria (People's Republic of China), "ko" means small or low, and "ayame" means *Iris sanguinea*. The *Iris ruthenica*, in Japan, has been referred in Yokusia Inuma's (1783-1863) Soumoku Zusetsu (Illustration and Explication of Grasses and Trees) 1856, as *Iris ruthenica* var. *nana* (Ko-kakitsubata). "Ko" means small or low, "kakitsubata" is *I. laevigata*. I enclose a copy from a reprint of Soumoku Zusetsu.

But, there is another "Manshu ko-ayame" so called by old fashioned alpine plants growers. Its foliage is quite similar to that of *Iris sanguinea*, but its out-look is quite different from the first "Manshu ko-ayame". However, to tell the truth, I have not seen an actual *I. ruthenica*. The first one looks like that of picture Figure 17, Iris of China, James W. Waddick and Zhao Yu-tang. So, I want to know the actual *I. ruthenica* one day. Can anyone help me?

零二 第六圖版

2. Pl. VI.



コカキツバタ
(Ko-kakitsubata)

草部
アヤメ科
(鳶尾科)

四八

Mr. Cozuca's address is: 56, Igadono, Odaka-cho, Midori-ku, Nagoya 459, Japan.

SIGNA TREASURER'S REPORT

1/1/96 - 12/31/96

As of 1/1/96:	Checking Account Balance	\$11117.29
	CD	5257.35
	Outstanding Officers' Advances	<u>\$129.26</u>
	TOTAL ASSETS:	\$16503.90

REGULAR INCOME

Memberships	\$2497.50
Past Publications	650.00
Seed Exchange	3147.50
Slide Rental Fees	32.50
Interest on CD	290.69
Interest on Checking	<u>197.48</u>
	6815.67

SPECIAL INCOME

Mass Medley Auction	1686.00
ISM Contribution	500.00
Repayment of Loan (Species Symposium)	3000.00

Total Income	\$11659.17
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REGULAR EXPENSES

Membership	177.08
Current Publications	3854.82
Past Publications	474.48
Seed Exchange	1233.45
Slide Library	15.12
Miscellaneous	<u>28.90</u>
Total Regular Expenses	5783.85

SPECIAL EXPENSES

Research Grant	1550.00
Seed Collecting Grants	750.00
Medals	500.00

Total Expenses	<u>\$8583.85</u>
	\$19579.22

As of 12/31/96:	Checking Account Balance	\$13531.52
	CD	\$5548.04
	Outstanding Officers' Advances	<u>\$499.66</u>
	TOTAL ASSETS:	\$19579.22

Minutes of the Board of Director's Meeting

June 16, 1996

An official meeting of SIGNA was held at the Westford Regency Hotel, Westford, MA at 2:15 pm on June 16, 1996. Present were Richard Kiyomoto, Carla Lankow, Elaine Hulbert, Barbara Schmieder, Joan Cooper and others.

R. Kiyomoto opened and passed out robin folders containing correspondence since the last meeting. The Treasurer's Report of 12/31/95 was passed out. Robert Pries' copies of the Checklist were examined. R. Pries's estimate of \$12.00 production costs and \$3.00 for mailing were accepted, with \$5.00 for profit considered. (This is a cultivar checklist and not the official species iris checklist being prepared by the committee headed by Jean Witt and endorsed by SIGNA. Ed.) It was proposed by R. Kiyomoto that those who receive the checklist should be notified of a Study Manual to follow. A vote of thanks was offered to R. Pries for his work on the checklist. R. Pries to be assured that the checklist in something very close to its present form will be published this fall.

R. Kiyomoto told us that the lack of an official SIGNA meeting at the Sacramento Convention of 1996 was not a precedent, and that from now on a chairman, preferably a local person, will be given responsibility for SIGNA meetings at National AIS Conventions.

R. Kiyomoto asked whether the present list of libraries receiving free copies of SIGNA needs revision. C. Rigby will be contacted. R. Kiyomoto asked for suggestions for a name to be proposed as Editor of SIGNA. J. Cooper volunteered to fill in if there is no official editor for the next two or three issues. C. Rigby has indicated that he would be willing to continue for another issue or two.

R. Kiyomoto asked J. Cooper for an account of progress on the Index for SIGNA. Cooper said that she and Rigby are trying to agree on a style of program (both substantially and computer-mechanically). Cooper will find out whether NARGS' computer program can be adapted for SIGNA's Index.

\$1500.00 has been committed and spent on Jean Witt's advice for Chinese projects. A proposal by Barrett Stoll from the floor that a joint meeting of the SSI and SIGNA be held in Iowa in the year 2000 was voted and approved. J. Cooper will be liaison for this meeting.

A question was raised whether the SIGNA membership list was sufficiently accessible to interested members. C. Lankow offered to help C. Rigby to get this up to date and advertised. R. Kiyomoto asked B. Schmieder for the status of the awards committee. Schmieder told us that the medals are in preparation; the money is advanced. Schmieder reminded us that 1998 will be the first year the awards are voted with 1999 the year they will be awarded. Schmieder will tell Shafer and Sacks about the new labels for the seedlist. C. Lankow proposed a price increase for the back issues of SIGNA. Lankow will word an announcement for Rigby to place in SIGNA to this effect.

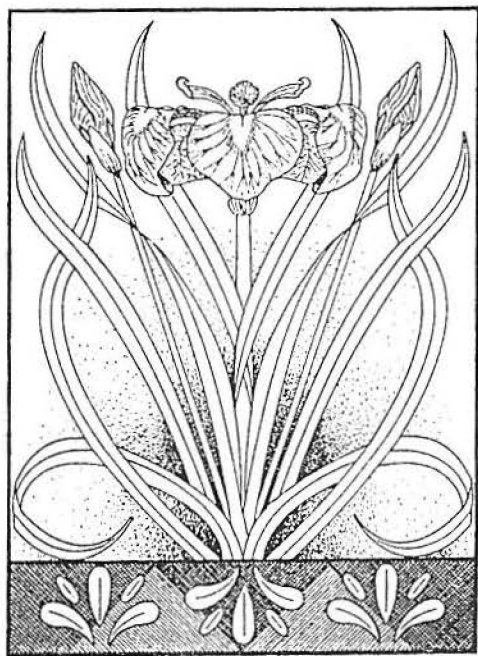
Dave Niswonger took the floor to tell us about questions of international organization. No action was proposed or taken.

A motion was made and passed to adjourn.

Elaine Hulbert,
Secretary

Remembering Connie Hansen

Connie Hansen was SIGNA Seed Exchange Director for the years of 1991 and 1992 when she became ill and the exchange passed to Darrell Probst. Connie was an avid gardener and plant collector, not only of irises, but other plants and held a fine collection of species rhododendrons. Connie's garden was written up in an early issue of Fine Gardening magazine and showed her out weeding in a section of the garden that contained her siberian irises. Her garden encompassed four city lots in the city of Lincoln City, Oregon and 'any other bare spot of ground she could find'. We had the pleasure of meeting Connie only once when she and a gardening friend were traveling in Northern California on a nursery, plant-hunting trip. Her car, a battered and rusting station wagon, was stuffed to the gunwales with plants and as a long-time friend said: "She used it as a greenhouse". She was a quiet, unassuming lady much involved with her plants.



We have just learned that Connie's garden in Lincoln City is being cared for and maintained, and that her home is used for classes on plants and related subjects for young as well as adult people. Because of time, we were unable to find other specific details. The accompanying illustration is from an invitation to a fund raising benefit for The Connie Hansen Garden Conservancy. Those interested can write to the Garden, PO Box 776, Lincoln City, OR 97367.

Nominating Committee Report

The Nominating Committee, consisting of Jean Witt, Chairman, Helga Andrews and Riley Probst, present the following slate of nominations for officers:

President: Carla Lankow
Vice President: Will Plotner
Secretary: Elaine Hulbert
Treasurer: Janet Sacks

Board of Directors: Jennifer Hewitt and Kevin Vaughn

Elected officers are elected for a period of two years and Board of Directors are elected for a period of four years. New officers shall assume office the last day of December of an election year.

Any Regular Member may make further nominations to the above slate by submitting a petition of no less than ten signatures of SIGNA members in good standing to the Nominating Committee Chairman no later than June 1, 1997. In such an event, a ballot of nominees shall be mailed to all Regular Members and all ballots to be counted must be returned to the Nominations Committee Chairman no later than September 1, 1997. Results of the balloting shall be published in the fall issue of the SIGNA publication. Nominees receiving a majority of votes from the ballots received shall be declared officers for the next term and shall assume office on the last day of December of the election year.

Robin notes . . . from Species & Native Robin #1

From Connie Kindahl, Pelham, MA: "I got seeds from SIGNA this year. Most of them germinated and later I lined them out in my little nursery area. They include pseudacorus, ensata, x biversata, setosa, lactea, forrestii and prismatica. I hope they make it thru the winter too. This is the first time I've grown any Iris from seed and I think it's quite exciting."

From Lorena Reid, Springfield, Or: "I have had limited success with my WAY-OUT crosses, but a little bit keeps one enthused. There are at least 3 seedlings from a setosa x PCN. (This will be my very first of this cross to germinate). I have a single seedling of an I. pseudacorus (Linda West) x Hatsukagama (a pink early Japanese). (Somehow none has ever gotten takes on pseudacorus pollen on the Japanese, always it is the Japanese pollen on the pseudacorus...and not too frequently at that.)."

From Lars Hopfner, Roskilde, Denmark: I hope you can read my English. Here in Denmark do we only have 2 native species, *I. pseudacorus* (very common) and *I. spuria v-danica* there is very rare (totally preserved), and only live in a few places on 2 islands (Saltholm and Amager) very close to Copenhagen. I do have both. The spuria is a little tricky, if it not is getting enough water. This Summer is it nearly not in flower, I have a group (seed originally from The University's Botanical Garden) there is about 1/2 square m, but there is only 3 stems in flower this year, last year was there 20 stems or more.

...From the Editor

We extend a warm welcome to new member Stephanie Rust of Union, Missouri. At eleven years, Stephanie is perhaps SIGNA's youngest member and we wish her many years of iris pleasure and adventure.

And lastly, how can one end without the inevitable comment about the weather? It is reported to rain from time to time here in the Pacific Northwest, and at slightly over 29 inches for the first four months of this year, we are some 8 or 9 inches above 'normal', whatever 'normal' is. In addition to rain, we have had snow, wind and an ice storm that caused such havoc in a few hours' time, its effects will be noticed for years. You all know the scenario. In spite of it all, or because of it all, *I. unguicularis*, sometimes called the Winter Iris or Algerian Iris, bloomed better this winter than it has ever done for me before. I tend to think of Algeria as a land of warm, sunny days and not at all like the weather we've had the past several months.

We picked the first blooms on the cultivar **Mary Barnard** on New Years Eve, about a month later than some in the Puget Sound area, and it was around the 15th of April when she began her much deserved rest. The photo, taken early March, shows about a third of the clump. All the clumps had heavier than usual bloom, except **Oxford Dwarf** which has always been a shy thing for me. Now, the 28th of April, a seeding of 'Mary' and *I. lazica* are still going strong.

May this bloom season be your best yet.

