



SIGNA

THE SPECIES IRIS STUDY GROUP  
OF THE AMERICAN IRIS SOCIETY

THE SPECIES IRIS GROUP OF NORTH AMERICA  
October, 1983, No. 31

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CONTENTS

Chairman's Message	Jean Witt	1069
Notes on <u>Iris missouriensis</u>	Jean Witt	1070
Hybrid Studies as of		
Sir Michael Foster	Roy Davidson	1071
Stebbins on Variation and Evolution		
of American Irises	Roy Davidson	1072
<u>Iris potanini</u> , Pods and Seeds	Jean Witt	1073
Help! I'm Trying to Find Sources	Alan McMurtrie	1074
The Mesophytic Irises at Rosedown	Roy Davidson	1075
Corrections--Three Wide Hybrids	Roy Davidson	1077
Useful Irises	Jean Witt	1077
Musings, Rumblings and Ramblings	Roy Davidson	1078
A New Iris in New England	Mac Shivers	1079
Gardening with Wild Irises in		
Your Own Backyard	Mary Duvall	1080
Irises of Louisiana	Percy Viosca Jr.	1082
In Memoriam: John C. Wister	Roy Davidson	1084
Robin Notes (extracted by)	Jean Witt	1085
Roof Irises	Jean Witt	1087
Alata to Alata	Edith Cleaves	1088
Designs from Antiquity	Jean Witt	1091
Louisiana Iris	Joe G. Richard	1092
Major Additions to the List of		
Published Color Photos of		
Iris Species	Homer Metcalf	1095
Species Iris as a Learning Tool	Jean Witt	1099
<u>Iris serotina</u> --		
A Late-Flowering Xiphium	Vernon H. Heywood	1100
The Natives Are No Longer Wild	Jose C. Rivera	1102
Editor's Comments	Joan Cooper	1103
Distinguished Service Medal		1104
Announcements		1104

## CHAIRMAN'S MESSAGE

JEAN WITT

With this issue we welcome our new editor, Joan Cooper of St. Paul, Minnesota. And let me remind you, that we the membership are the ones who make her job easy or difficult--so keep your reports and species write-ups coming. Nothing makes an editor happier than to have a backlog of material on hand.

Our heartfelt thanks to our outgoing editor, Bruce Richardson, for his many years of yeoman service in SIGNA's behalf. Bruce will continue to print and mail our publication for the immediate future.

We also welcome Alan McMurtrie as our new salesman of back issues and other publications, and extend our thanks to Evelyn Hayes as she retires from that position.

Our thanks, too, to all those members who have so generously donated slides for our SIGNA collection. This had made possible a revised and updated species set, which we hope to have ready for loan by the time this issue reaches you. (Write to me directly--we still need to find a volunteer among our photographer-members to fill the slide chairman's position.) Our collection of slides of American species in the wild is progressing well, though we still are in need of shots of Louisianans and other southern species. We're also coming along with a parents-and-progeny set, made up of some of the now-considerable number of inter-series hybrids.

The new SIGNA index is currently in progress, though we aren't making any promises at the moment as to its date of publication. This will make for much easier access to the material in back issues, enabling us to review what we have accomplished in our first 15 years (1) and to spot neglected areas for attention in future issues. Repeating my pitch from SIGNA #30, we'd particularly like to receive material on the small Spurias, the Reticulatas, and the bearded species.

At this time of year, our special thanks to all those who collect and send seeds to our seed exchange. This continues to be a most successful activity, and depends on each and every one of us. The seed exchange director's job will be coming up for a change not far in the future--we'd like to find our next director in an area where there would be a group of SIGNA members to assist.

Finally, I want to ask you all to share some information with the rest of us on two topics--(1) how has the weird weather of 1983 affected your species irises? and (2) what kind of species exhibit did your local iris show have, and how was it received?

May your species irises all winter without problems!

\* \* \* \* \*

## NOTES ON IRIS MISSOURIENSIS

It's good to know that Iris missouriensis can still be found by the acre in many parts of western United States. Besides the fields reported after last year's Denver convention (see also the note by Colin Rigby on page 1085 ), we saw acres of this species in bloom this spring near Ellensburg in the Kittitas Valley of central Washington.

Pastures and other uncultivated areas north of Central Washington State University near the airport and on Burroughs Road have fine displays around the end of May. On May 15th we were considerably ahead of peak bloom, so it was not possible to judge the extent of color variation.

Early flowers had solidly colored standards, more blue than violet, with indistinct dichotomous veins, light blue style arms paling toward the base, and white ground falls veined in violet blue. To my surprise, the falls came close to being crested—the midline was definitely ridged, with a yellow line to either side. I wonder if this is typical of all populations of I. missouriensis . . .

Are we making any progress with this species as a garden plant? So many attractive color forms of it have been reported in the pages of SIGNA from time to time, and the seed exchange has sent out collected seeds from many parts of the west, but we seem to have had very few reports on its behavior in gardens. I certainly can't claim any great success with it, even with the coastal forms. How has it fared with some of the rest of you?

Please let our editor hear from you, either your successes or failures.





## HYBRID STUDIES, AS OF SIR MICHAEL FOSTER

ROY DAVIDSON

The gardener-breeder is allowed the choice of selecting among the seedlings he has raised for the improvement of such qualities as constitution and vigor, hardiness and disease resistance, flower color, form or substance, all-the-while never violating the pristine qualities of the species represented; or he may choose to combine the best of his seedlings with the best of another species in what is called a hybrid.

The first alternate is termed improvement by selection, and all good gardeners practice it at least to some degree, and the hybridizing effort may or may not result in anything quite so innovative as a "really genuine" improvement, although that is as always an enticing possibility. Lynch in his Little Book of the Iris (1904) said it well that, "It may be important to point out that everything is not got by crossing."

The greatest value of most of the early results at such interbreeding of iris species was, of course, in the revelations of species inter-relationships. Certainly as much, perhaps more, invaluable knowledge came from the failures, and cytologists are now impressed with such breeding attempts to establish the "boundaries" of species, so to speak.

Michael Foster commenced his work in interbreeding irises in 1879 and continued to 1903, attempting in his curious pursuit to mate everything with anything. He meticulously recorded these results along with other observations of irises he grew in a series of notebooks, where the failures are indicated, and the results of the successful crosses are described and sketched. Dykes had access to these records, then in the possession of Miss Ellen Willmott of the then famous Great Warley Place garden (now in ruin) and he made use of them in his further experiments in cross-breeding species not known to Foster. These unpublished records were unexpectedly offered to Dr. Randolph at the archives of the Linnaean Society of London, and he referred to them in his report of the study of European pogonirises in the 1950 BIS yearbook.

Some few of these hybrids may be regarded as innovatively unique and individual; SINDPERS and PALTEC come to mind; JAPOWATT was the first of a line of similar evansia hybrids, and there are many others. It goes without saying that if any plant is to succeed it must be happy in a harmonious balance of its surroundings as were its parents, in an environment neither too wet nor too dry, too warm nor too cold, too shaded nor too exposed, and some are fussy about soil reaction. But before it can be expected to cope with its surroundings, the subject, hybrid or otherwise, must be in balance within its own self. Maybe this is the major difficulty of the thinking that a hybrid is a better plant. 'Taint necessarily so!

\* \* \* \* \*

## STEBBINS ON VARIATION AND EVOLUTION OF AMERICAN IRISES

ROY DAVIDSON

Dr. G. Ledyard Stebbins in his book "Variation and Evolution in Plants" [1950] touched specifically on the accumulated knowledge concerning irises. Some of these excerpts explain not only the basics but some quite explicitly detailed studies. "In any sexually reproducing, cross-fertilized species no two individuals or populations are exactly alike." (p. 13.) And therefore the number of categories used to classify the results could be limitless. Their numbers and their natures depend largely on convenience: how many such categories give a clear picture of the amount of and nature of the inherent variation in a specific colony or group, i.e. subspecies, variety, sub-variety, etc.

"Within Iris, as in Solidago and Ceanothus, the evidence that ecological isolation is the principal barrier between the species concerned is strengthened by the fact that a disturbance of this barrier causes the appearance of a large number of hybrids and hybrid derivatives, and thereby a great increase of gene-flow between the two species." The Delta irises are especially cited here, but we know also this is true among the Pacific Coast populations of Californicae, probably within subseries Chrysographae, and surely among the Oncocyclus especially. In the most extreme degree of this gene-flow between the species, both physiological and ecological boundaries, as well as those of cytological significance, are wiped out in what is called "convergence." The PCI were cited by Lenz as what is known as a syngameon, their members genetically inter-connected by a series of active hybrid situations in the wild. (p. 207)

"Since I. versicolor appears at present with I. virginica, but not with I. setosa, the plausible assumption is made by Anderson that at some time in the past I. setosa var. interior extended southeasterly to the north-central part of North America, where it overlapped the territory of I. virginica var. shrevei. There the hybridizing took place, resulting in I. versicolor. This was probably during the Pleistocene Epoch, because the range of versicolor in that territory in general was covered by the great Wisconsin Ice Sheet. The var. interior probably occurred along the moraines of the retreating glaciers and was able to hybridize with the shrevei which had moved up the Mississippi Valley in response to the warming of the climate. (p. 352)

"Iris versicolor as a newly formed polyploid was particularly well adapted to the colonization of the newly available habitat as the ice receded. I. setosa var. interior has apparently disappeared due to fierce competition for the territory in which it was engulfed. Anderson was to find traces of this relict in the driftless Yukon of interior Alaska, where it has managed to maintain itself, while the form known as canadensis was able to survive in the warmer eastern maritime sector of Canada. It seems to be quite incapable of adaption due to reduced variability of its genetic nature, called greater conservatism." (p. 348)

## IRIS POTANINII

JEAN WITT

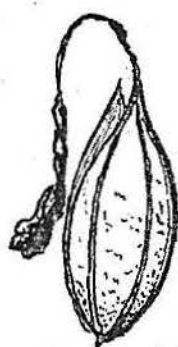
Since it may be quite a while before many of us will be seeing the flowers, here are drawings of pods and seed of Iris potaninii which were collected on June 30, 1979, in central Asia by Dr. Melinda Denton of the University of Washington department of Botany who spent part of the summer of 1979 in the USSR. The plants from which these pods came were growing on desert steppes above the west side of Lake Baikal, at about 1500 to 2000 feet elevation, in sandy soil and full sun. This is an area that is hot in summer and cold in winter, and very dry. Wind is said to blow most of the snow away, leaving the plants exposed to the bitter cold. Presumably the irises are spring blooming, to have ripened their pods by the end of June.

Iris potaninii Maxim. belongs to the Psammiris group of Subsection Hexapogon, along with Ii. bloudowii, humilis (arenaria), and mandschurica.

Herbarium sheets show a small tufted plant, with its base buried in masses of curly frizzled leaf fibers from previous seasons. The flowers, which can be either yellow or purple, bear more resemblance to pumila dwarfs than do the 1/8 inch wide round-tipped leaves. The long perianth tube shows clearly between the dried remains of the flower and apex of the pod. The seeds have a shiny wrinkled surface like dried prunes.

This species was unknown in cultivation when Dykes wrote The Genus Iris. He remarks that it grows "at a higher elevation (18,000 feet) than any other known iris."

The seeds arrived too late for our 1979 seed list, but we hope that those who received them as extras did get them going and have plants to share with the rest of us in due course. Please let us know.



*Iris potaninii*, pods and seed

\*\*\*\*\*

HELP!!  
I'M TRYING TO FIND SOURCES FOR IRIS SPECIES

I've been writing an extraordinary number of letters this year to England, Holland, the United States, and even New Zealand in search of iris species. My interest has been particularly in the area of bulbous iris: The Reticulatas, Junos and Xiphiums. But wherever there were leads to other types of iris, I tried to chase them down. This included going through all issues of SIGNA and writing to almost every one of the gardens that were listed as sources of species iris. I ended up with a lot of dead ends. Very frustrating, time consuming and expensive. (I doubt I've spent as much money on postage in the past 10 years as I've spent in the first 8 months of this year.)

After all that I've gone through and realizing how out-of-date some of the sources are that had been listed in SIGNA, I'd like to draw up a fairly complete list of sources for "non-standard" iris. By this I mean iris that are not easily available (so sources for Spuria, Louisiana and bearded cultivars would not be listed, but sources for species of these iris series would be).

In order to do this properly I need your help. I'd like to know where you've gotten your "non-standard" iris, specifically:

- a. Name of nursery/company
- b. What iris were purchased and the year
- c. What iris they sell
- d. Any comments such as "they don't ship to Canada," "I had problems with getting my plants," or "the nursery does not sell plants by mail."

Don't feel you have to tell me all of the details. Even if you feel you can only spend 5 minutes writing, please drop me a line. A quick way to supply me the information would be to photocopy the list of iris from the nursery's catalog, jot the name and address on the back of one of the photocopies, then pop them in the mail to me. My address is:

Alan McMurtrie  
22 Calderon Crescent  
Willowdale, Ontario  
Canada M2R 2E5

For my own purposes I would appreciate knowing of people who might have some of the less common (rare) iris, including wild forms collected from overseas. Specifically people who would not normally donate seed from these iris to the Seed Exchange. Please note: these people will not be listed in the "List of Non-Standard Iris Sources." I am just wanting to find out what species are being grown.

Assuming all goes well a complete list of nurseries will appear in the Spring SIGNA. This will be complete with addresses and information about what each nursery has for sale. A list of the nurseries I already have information on appears below.



Remember, the success of this project is dependent on you and your help.

CANADA

C.A. Cruickshank Limited

NEW ZEALAND

Winstone's Garden Centre

ENGLAND

P. J. Christian

Avon Bulbs

The Cottage Nursery

Walter Blom and Son Limited

U.S.A.

Melrose

Wayside Gardens

Rocknoll Nursery

David Sindt

Pleasure Iris Garden

The Aril Society International

International Growers Exchange

Northwest Hybridizers (Jean Witt)

Laurie's Garden

George C. Bush

Cooper's Garden

\* \* \* \* \*

THE MESOPHYTIC IRISES AT ROSEDOWN

ROY DAVIDSON

Hydrophytes are water-loving plants while xerophytes can survive even severe water shortages; those which take well to growing conditions neither very wet nor very dry are called mesophytes. This includes by far the majority of irises and here in the garden at Rosedown we have built two special gardens to accommodate a large number of them.

On berms raised a foot or more above the winter water table out beyond the North Pond we have established a large number of Siberians of all colors but none white. One section accommodates "guest irises" sent for the May viewing when the Iris Society comes to visit--and vote. In addition to the deep black alluvial soil of the meadow (which is too wet and cold for Siberians in our winter) we've hauled stream sand, glacial till from the slope above and lots of sawdust. Plants are established in "hills" of composted humus in this "basic mix."

This is planned to be a "quiet garden," set against the green-green background of the nearby deciduous woodland and interplanted with some golden-leaved and golden-variegated companion plants with an underplanting of gold violas--essentially a blue and green garden with a gold carpet set in a panel of grass.



Adjacent to this, but on the west side of North Pond in wet pockets of humus soil on the glacial till are the 40-chromosome *Chrysographes* Section of *Sibericae* and the Cal-Sibe wide-cross hybrids along with some other wide crosses such as *versicolor-laevigata* and *siberica-laevigata*. Here too are the smaller spurias and *Iris verne* along with the PCI (*Celifornicae*) which pop up all over the slope and the areas along the driveway where their first seedling beds were located. In the margin of a broad sandy path toward the newly enlarged East Pond several forms of *Iris prismatica* are spreading by their stolons to form large patches.

The Evansias are, by-and-large, woodlanders; yet they require good light to flower well. As they are so badly injured by our prevalent and persistent slugs, they are here established in large containers to be on display along the North Terrace. At last count there were a couple of dozen, all told, Asiatics, Americans and hybrids.

The only irises that really prosper in deep shade here have proven to be *Iris foetidissima*, and the shade induces really handsome dark green foliage which is glossy as polished satin and evergreen. There are several color forms under the conifers, one a good rich yellow and the one found in a cottage garden in Wales--a nice amethyst lilac color.

Out in the meadow beyond East Pond we have built the second special garden for the AIS to enjoy. A complete departure from the natural style of the rest of the garden, it is a rondelay or wheel--a round bed centered by a huge old cedar stump--treated as if it were a fountain with the heather at its base the water basin, and that surrounded by a circle of nothing but white flowers, featuring white Siberians but with certain other white irises and, of course, a great variety of companion plants--all of them white flowered or white variegated. This is enclosed within a bounding grass walk about which is a horseshoe of white azaleas--the open end of which fronts on the pond--all set in a background of native trees including the rich green of red-cedar, *Thuja plicata*.

There is a stroll-path returning the stroller to the house and the refreshments from which point the Rondelay Garden is doubled by its image in the pond. There are embankments in the pond-margin of pale *Iris pseudacorus* and the little variegated *Acorus* plus clumps occasionally of the larger *Acorus calamus* with leaves mostly white.

Back again to the berm-garden, there is as broad planting of the strange brown "water-iris" called HOLDEN CLOUGH under the golden Catalpa and elbowed by the stunning yellow Hostas.

We are confident that even dyed-in-the-wool TB fanatics will find something of interest in this beardless garden, for although bearded sorts were once of major interest here, they've been discontinued simply for the fact they're not so satisfactory in this cold garden and also because they are too much work for the reward returned--albeit they are the greatest of color spectacles when in flower. The irises we do grow are truly low-maintenance plants; we plant them where common-sense says they ought to dwell and then stand back and let them do it. Surely out of the nearly four-hundred kinds growing will be something for everyone. Enjoy.

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## CORRECTIONS: THREE WIDE HYBRIDS

ROY DAVIDSON

Three unusual and very worthwhile hybrid irises in the Checklists need some clarification/correction of their records: the first of these is GERALD DARBY (R. 1968) which Darby thought he had raised from the wide cross of Siberian and Hexagona apogons. It is, in fact, much like what was once in cultivation as Iris carolina. Parentage and description should read: "The plant now going by this name is of unknown derivation but it is an obvious ally of Iris versicolor; a very robust plant with eubergine stalks and violet-colored leaf bases that make striking garden effect. Appears by its larger standards to belong to Iris x robusta, E. Anderson, the cross of versicolor with virginica. Flowers blue violet. Sets few good seeds. Chromosome count  $2n=88-89$ , made by Ellis.

HOLDEN CLOUGH is news again for seedlings of it flowered by Ben Hager; these looked to be improved flowers of Iris pseudacorus, and it is assumed the bees were vectors of pollen from that species onto the brown hybrid-puzzler. At any rate the registration should read: "Of unknown origin but totally unlike chrysocarpes with which it was found growing. Resembles both pseudacorus and foetidissima and in many respects seems quite intermediate between the two. Foliage is evergreen in warmer climates. Occasionally sets seed with colored fleshy outer seedcoat. Flesh of rhizome pinkish as in I. pseudacorus. Chromosome count  $2n=37$  made by Ellis.

ELWOOD MOLSEED, a purely Evansia hybrid plant, is, of course, beardless. The description should be amended to read: "Light yellow lines deepen to small golden-yellow signal spot." [Surely, I didn't let my wits wander to give it a beard when I made out the registration.]

I was not, of course, the registrant of the first two: Both Mr. Coe and Mr. Patton, who did register them, are now deceased, as is Mr. Darby. As these are both meritorious garden subjects, not mere side-show curiosities, it is important that their records be as impeccable as is possible, even though each is a mystery in its own right. The third one, though tender, is a tidy cold-house or hanging basket subject of much charm.

\* \* \* \* \*

Add some more species to the list of useful irises--Marc A. Baker of the Department of Botany and Microbiology, University of Arizona, Tempe, AZ, reported that among the Karuk, Tolowa, and Yorok Indians of northwestern California Iris innominata, I. tenax ssp. klamathensis, and I. tenuissima were the only three species of plants used for cordage in the pre-white era, while some twenty-five species of plants were used in basketry.

## MUSINGS, RAMBLINGS AND RUMBLINGS

ROY DAVIDSON

Present day economics are playing havoc with many things including public iris gardens. We can hope that those in North America--both public and private-open-to-the-public--will fare better than European counterparts. Peter Hunt, writing in 1964 for the Shell Gardens Book, observed, "The iris has always had its devotees in Britain," and he goes on to cite the gardens of Miss Pesell and others, adding that even then some of them were no longer in existence. This last year saw the removal of the last of big iris gardens, the great formal planting at the Royal Botanic Garden at Kew. It was dismantled due to the ever demanding labor costs, which at last could not be met. I myself can testify at the enormity of the task involved here, for just as the first buds of the thousands of stalks were commencing to unfurl their glory of color in 1974, they were blown flat, most of them snapped off in a sudden and furious wind and rainstorm as I watched! It had been too much work to tie each of the stalks to a stake. This enormous and very prominent open area is to become the new site of the grass collection which should be very handsome there indeed. The water irises had always been alongside the streams of the near-adjacent rock garden, with the mesic species in smaller end-beds at the opposite side and the xeric ones in bulb-frames, recently set alongside the approach to the new alpine house. It now seems there may be even more concentration on other than the labor demanding bearded sorts, and to this end Tony Hall, who has been charged with overseeing this devastating change and the care of the irises, has been accumulating superior forms which ought to be an incentive to everybody to want to grow the better kinds of beardless irises that are not so demanding of staking, replanting and other detailed maintenance. Just plant them well and leave them alone is the best advice for growing most of the apogons.

\* \* \* \* \*

We made no past comment on the iris section of Hortus III when it came out a few years ago, yet it did not go unnoticed. We were disheartened to note discrepancies and outright inaccuracies, the most rankling of which was the retention of Iris kaempferi as a good species name, which in fact had never been correct, though well-enough intended. While it is true of course that this reference is for horticulturists, even horticulturists deserve to be kept informed! When we recently looked to see what the N.Y. Botanic Gardens Encyclopedia of Horticulture's editor had done for iris, we were none short of dismayed at the notation he had followed the taxonomy of Hortus III . . . and so it goes. We had made every effort to see that pertinent iris literature got to the compilers of Hortus III, when already that specific error was a hundred years with us; it may be another century before a similar opportunity to correct it is afforded us. Oh well, we ourselves won't be around, and maybe by then somebody will have changed the rules so that usage dictates the "right way." Meanwhile the rules governing nomenclature do not seem strong enough to be compelling.

An item of great importance is coming up for some sort of consideration shortly and we hope that it will be met more forthrightly. When Dr. Lenz was chairman for the AIS Scientific Committee he devised a system for registration of clones of species, presumably as the result of his own collections. Bulletin 165, p. 65-66 for April, 1962, tells us "AIS will bear the cost of such registrations, a service to be handled by the Scientific Committee. A special form for such registrations will include submitting a dried specimen of the plant." I wonder what ever happened to that? I wonder if Dr. Randolph's collections were recorded by this expedient? If so, I wonder where all this is stored? Were Lenz's Californicae collections recorded in this manner? Did anyone else make use of it? Is it worth trying to rejuvenate as a means of recording superior horticultural forms of any species? If so then it could be a real help in answering one of the requisite questions a judge is faced with: IS the entry correctly named?

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#### A NEW IRIS IN NEW ENGLAND?

'Iris unguicularis', WALTER BUTT

MAC SHIVERS, WILTON, CONN.

Something about its description in World of Irises intrigued me. So I ordered one. It arrived in late August, as a good strong rhizome, which I promptly potted, since I was undecided whether it would stand up to Connecticut winter.

Bee Warburton said no, it wouldn't, so in early December I brought it in, stuck it away in an odd corner, and occasionally watered it lightly.

One morning I detected a pleasant but pervasive fragrance in the area, and lol it was in bloom!

Forthwith I brought it out for display in the living room. Over a four-week period beginning in mid-December a total of four blooms occurred, delicate, light blue or pale lavender, each lasting only a couple of days.

All the while their fragrance put you on notice something was in bloom the minute you entered the room.

Botanically, an interesting feature is that what appears to be the flower stem is really an extension of the perianth tube. The ovary is way down at ground level among the leaves, a good six inches below the flower.

It may not be for everybody, but I kind of liked my "Winter Blooming" iris.



## GARDENING WITH WILD IRISES IN YOUR OWN BACKYARD

MARY DUVALL

If you are looking for something different in perennials for your flower borders, consider growing some of the beardless species irises. Although not as flamboyant as the tall-bearded, there are several wildlings that really are better suited to a perennial border. There are 200 or more different species of irises to choose from--a great many that are well suited to growing conditions here in Minnesota. The following irises have all been grown from seed by me for my flower garden. Although this is a very slow method for most gardeners, it is by far the most economical. Most irises take from two to four years before the first bloom, but once established, they provide you with interesting plants rarely seen here except in specialist's gardens.

A very fine companion plant for *hemerocallis* is *iris subbarbata*, a spuria species which gives a vertical effect contrasting beautifully with the arching foliage of the *hemerocallis*. The 3 foot bloom spike has deep violet strikingly veined blossoms which are spaced close to the stalk. If you want a plant in a lighter color, try *I. spuria* 'Lilacina' which slowly develops into a very floriferous clump producing a mass of airy light lavender blooms. If you are looking for a taller flower, spuria *ochroleuca* grows to 4 feet and has white flowers with a strong yellow signal area on the falls. A small spuria good for the front of the border is *iris graminea*, an excellent edging plant because the leaves give a nice grassy effect all season. When in bloom, the plant has an informal appearance as the bloomstalks lean outward so that the blossoms are mainly seen around the edges of the clump.

The spuria seeds are the slowest to germinate, very often lying dormant the first year or two if planted directly into the soil. I plant 2" deep to insure against drying out. The seedlings develop very slowly, requiring an additional two years at least before flowering under normal gardening conditions. Spurias are heavy feeders, growing well in my heavy clay soil. They all require full sun except *i. graminea*, which grows well in part shade.

Siberian irises germinate much more readily than the spurias, but do require more moisture, being native to damp meadows. They do well naturalized along stream banks as well as in the perennial border. *Iris sibirica* 'Grandis' is a graceful plant 2 to 3 feet tall carrying its blooms high above the foliage. The small flowers are medium blue violet with white markings. Low growing *iris sibirica* Nana is very showy with its mass of white blossoms scarcely a foot high. It can be used very effectively in front of a peony bush.

Seeds germinate readily and can be planted in 6" pots in the fall, watered well, then covered with plastic and set outdoors to freeze and thaw. Remove the plastic as soon as seeds begin to germinate in the spring. This method works well for all types of iris seeds, although very often it will be necessary to keep the pot for a second year before the seed germinates.



The method I use is slightly different. In January, I scatter the siberian iris seed on the surface of damp sphagnum moss in a covered clear plastic box, which I store on the refrigerator shelf for two to three months and then plant into a 6" pot. In this way I get earlier germination and consequently huskier plants. I like to wait until the plantlets are 6" tall before planting out into the garden, so occasionally I hold over until the following spring, storing the pots in a cold frame for the winter. All iris seedlings need to be extremely well protected the first winter. I cover early in October with at least a foot of marsh hay or straw, rather than risk winter losses.

Other water-loving irises that are native to Minnesota are the iris virginica found in the sloughs and marshes around here, and iris versicolor, which is found further north. Good color selections are now available from seed--pink or red versicolores being especially delightful additions. Iris versicolor can present a rather ungainly appearance later in the season so I grow mine in a natural area (massed near a culvert where they get abundant moisture in spring and early summer.) Iris virginica makes a very strong upright clump which remains in good condition all season; a very fine addition to the perennial border. These can both be readily grown from seed planted directly into the ground. Probably the most vigorous moisture-lover is the iris pseudacorus, a strong-growing plant from 3 to 6 feet tall which is available in various shades of yellow. This plant has adapted itself to most areas of the country, on the east coast as well as the western states.

Another easy wild iris for Minnesota is the iris setosa, a three-petaled variable plant which can be found in dwarf forms under 12", setosa var. canadensis, native to Canada. Setosa var. interior, native to Alaska, is somewhat taller and can be found in lavender-blue shades and in rose-pink, as well as in white. This iris can also be grown in situ, always remembering to keep the area well watered or heavily mulched until the seed germinates and becomes well established. All of the above will give you long lived trouble free plants which fit well into a mixed flower border.

Because iris seed is so difficult to germinate, I routinely soak the seed for at least one week in a very dilute Hilax solution. It is not necessary to do so, but I find I get more rapid germination by this method. I also usually plant the seeds in 6" pots because it gives better controlled germination. I have had the most success when I've used a wooden box 6" high x 10" x 14" filled with friable soil, the seed covered 1" deep. With a box this large, no supplemental watering is necessary during the summer months.

(Seed of any of the above can be ordered for \$.25 per packet.  
The 1982 list had 250 selections of species and hybrids.)

Published in the Wright County Horticulture Society  
HOTLINE, Jan. 1981, page 5. Mary Duvall is the Seed  
Exchange Director of SIGNA.

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# Iris of Louisiana

By Percy Vioseca, Jr.

(Reprinted from a pamphlet issued by Edmond Riggs of St. Martinville, La., some fifty or more years ago which was "reprinted by permission of 'The Flower Grower'." This and other pamphlets were recently donated to the King County, Wa., Iris Society and provided to us by Jean Witt. Obviously, most of this article is of primarily historical interest, Small's "splitting" of *Series Hexagona* long since discarded. Underlining is mine. Ed.)

The "Iris Center of the Universe" is the phrase applied by Dr. John K. Small, Head Curator of the Museums and Herbarium of the New York Botanical Gardens, to the region centering around New Orleans, Louisiana, when speaking about the rich fields of Water Iris which lie in the vicinity of that city. The greatest development of this Iris Center extends about fifty miles north, east and south of New Orleans, and about one hundred miles northwest, west, and southwest. Dr. Small, to whom we are indebted for a scientific study of southern plant life, refers to his discovery of these rich Iris fields in the journal of the New York Botanical Garden, in the following words:

"This remarkable local development of Iris in the tip of the Mississippi Delta is as yet inexplicable. Aside from its magnitude, the outstanding points are the often vast colonies of species, the great range and combination of colors, and the unusual size of the plants. Flowering stalks six feet tall are not unusual. Stalks seven feet high have been found during our explorations. In such cases a six-foot man has to look up in order to see the terminal flower. In view of these facts, the Lower Mississippi Delta natural Iris field constitutes the one most spectacular botanical and horticultural discovery in North America from the standpoint of a single genus within such a limited area."

The discovery of Southeastern Louisiana's truly remarkable Iris display by Dr. Small was more or less of an accident, for it was incidental to a botanical expedition from Florida to Western Texas, made during the Spring of 1925. Several plants were sent to the New York Botanical Gardens where they flourished and flowered the following Spring. Although commonly called Water Iris, it was found that the Louisiana plants were not only hardy in New York City, but in the soils and climate of New Jersey; Maryland, and Florida. In all a total of more than 8,000 plants were sent North for study, and they thrived in ordinary garden soils, whereas in their native home, many species actually lived in standing water.

The first of the new Iris discoveries to be named by Dr. Small was described in 1927 under the name of *Iris vinicolor*, the wine-colored Iris. This flower is a rich vinaceous or reddish-purple, with a single yellow crest or ridge down the center of the long, gracefully-spreading sepals. In 1929, Dr. Small described six additional forms as new species, *Iris violipurpurea*, *I. giganteaerulea*, *I. chrysophoenicia*, *I. miraculosa*, *I. chrysaeola*, and

I. atrocyanea. A brief description of these will give some idea of the wide variety and beauty of the new Irises.

Violipurpurea is about the same size and shape as vinicolor, but instead of being a reddish-purple it is a beautiful shade of violet-purple.

Giganticaerulea, the giant blue Iris, is perhaps one of the tallest Iris known, with its flower stalks as tall as six or seven feet. It is generally of a violet-blue or nearly-blue color, with spreading fan-shaped streaks of white. The crest is compound with several lateral ridges which spread outward. These ridges may vary from greenish-white to deep-orange and beyond them lies a zone of white which is streaked outward into the blue. There are many color varieties in this Iris, viz, shades of dark violet, violet blue, lavender, lilac and white.

Chrysophoenicia, the gold-embroidered Iris, is usually a dark violet-blue (plum color) with a crown-shaped golden crest zone at the base of the sepals. Chrysaepala, a related form, is a bright-violet with a yellow crest, on each side of which is a zone of greenish yellow, streaked with brownish veins.

Miraculosa is another outstanding Iris with its tall stalks each bearing several large pale-lavender or white flowers. A single prominent bright-yellow crest stands out in contrast to the light color of the sepals. Atrocyanea is a related form with somewhat smaller flowers, but of a dark violet-blue color.

In the two years following the publication of these original seven discoveries, Dr. Small and Edward J. Alexander, also of the New York Botanical Garden, have continued their studies and late in 1931 published their "Botanical Interpretation of the Iridaceous Plants of the Gulf States." In this publication a total of 96 species are described, 85 of which are native to Southern Louisiana. Including the color phases recognized up to 1930, which list has been continually growing since, already over 200 distinguishable forms are indicated. Mr. Alexander, in his color notes and descriptions summarizes these as follows:

"six various shades of violet-blue, with about fifteen different combinations of crest and color;

four various shades of lavender-blue, with about twelve different combinations of crest and color;

eleven various shades of violet, with about forty different combinations of crest and color;

seventeen various shades of red violet, with about thirty five different combinations of crest and color;

fourteen various shades of lilac, with about twenty-five different combinations of crest and color;

nine various shades of cerise and magenta with about eighteen different combinations of crest and color;

fifteen various shades of pink and old-rose, with about twenty different combinations of crest and color;

twenty-six various shades of red, orange-red, and orange, with about thirty-five different combinations of crest and color."

Dr. Small's technical classification is based primarily on the form of the crest which may be absent, single, double, triple, lance-shaped, crown-shaped, or radiating, and secondarily upon the color and other characteristics of the flowers.

Among the outstanding color forms recently discovered are a rich imperial purple, an ivory-white, a chrome-yellow, and a golden-yellow.

(It is suggested that the large number of Iris species, which may be called native to the Delta of the Mississippi, are the result of countless ages of the floating down of plant life from the upper reaches of the Mississippi river and its tributaries. It is well known that drifting bogs and patches of soil, and vegetation generally, have been floating down this great river system for many centuries. This inference is plain, therefore, that the large number of native Iris species in Louisiana may be called a natural collection of species from the vast territory drained by the greatest system of rivers in the world. In this connection note that it is stated that some of these Iris species when taken North seem to do well in a habitat entirely different from that which they find in the Delta of the Mississippi.) Madison Cooper

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#### IN MEMORIAM - JOHN C. WISTER

The summer BULLETIN paid tribute to the founding president of the American Iris Society whose enthusiasm and far-sightedness so advanced the Arts and Humanities of Horticulture in the world. Dr. Wister was one of SIGNA's honorary members and, although at his advanced age he was not a participator in our affairs, he expressed his appreciation at being so elected and continued his interest, largely through the Presby Gardens for which he had laid out the basic design and where the historical section continues as his monument.



## ROBIN NOTES

Lillian Bourne, Barberton, Ohio: "I find the borer likes nothing better than the old Louisiana, DOROTHEA K. WILLIAMSON. Two years ago it didn't bloom, so I dug it all up, and behold! 14 full grown borers in the ground and clump. Sifted the soil and replanted in the same spot. Last year it bloomed. . . ."

Colin Rigby, Penngrove, California: "The Louisianas loved every drop of rain and were really beautiful . . . . I. laevigata 'alba' was charming. Just a line of purple on the styles and a gold signal. I. laevigata semperflorens is a most rewarding plant, and if it has a fault, it is that it grows! Its neat tailored foliage makes it one of my favorite plants. The "dwarf" I. pseudacorus grew to over 5 feet and the flower substance was so poor judges at the show could not tell whether the flowers were newly opening or fading.

"My wife and I drove to the 1982 AIS convention in Denver via Idaho and Wyoming and returned through central Utah and Nevada. Everywhere I. missouriensis was in bloom. What variation in color and form. Plants in one rather small area just below a mountain pass in the middle of Nevada were particularly interesting--deep color and very good form. Wished for some seed but would never find it again in a million years. I had always thought I. missouriensis around Moses Lake in Washington state the nicest I had seen but I think this in Nevada has it beat. Those in the Swan Valley in northeastern Nevada also were very nice. Wish this iris were not so hard for me to grow. Will try it again this fall from seed, but I lose it in the spring after it has grown about 2 to 3 inches. Would appreciate any suggestions on growing this one."

Cherie Lowe, Calgary, Alberta reports she had bloom on I. clarkei, I. pseudacorus, and siberian CAESAR'S BROTHER among others, as well as all the bearded classes. She did not get any flowers on her Spurias and would welcome suggestions on how to make them bloom.

Florence Stout, Lombard, Illinois: "I have never seen this in print, but it seems to me that one of the main differences between I. cristata and I. lacustris that is overlooked is the obvious difference in the way the petals are held, I. cristata both S and F being horizontal, and I. lacustris has cupped standards. Also the crests are so much more in evidence in I. lacustris. The size difference is not always the main thing since in Door Co., Wisconsin, the I. lacustris is as big as most I. cristata and leaves are broad. I'd like to run a chromosome check on the ones from Door Co. to satisfy myself that it's not some hybrid. I am growing several forms of I. cristata from lots of places, as well as the two forms of I. lacustris. I have never been able to set seed on any, though . . . I have to water these two copiously during July and August when it may be quite hot and dry for several weeks--they don't like to dry out then."

Jean Witt, Seattle, Washington: "Last year I moved my I. milesii around to the east side of the house so it would get more sun. It promptly became a cabbage and bloomed beautifully. The slightly pinkish orchid flowers are quite attractive, but they are rather small for the height of the stems, and the leaves are overly vigorous."



I bloomed the first of a set of CAMBRIDGE x setosa seedlings this spring. The flower is a very pretty medium blue, of excellent shape--in fact, almost identical in shape to the siberian-setosa hybrid that came from Eckard Berlin in Germany. The flower on his was slightly darker blue than mine, but stalks on mine had 5 flowers to 4 on his. I can hardly wait till next year for the rest of them to bloom. Meantime; I tried a few more crosses of this type, as it appears to give a very good garden hybrid with extra vigor."

Joan Cooper, St. Paul, Minnesota: "There is as big variation in the hardiness in the Louisianas, but old DOROTHEA K. WILLIAMSON is as hardy as anything I know of--a bit exuberant, in fact, and some others are showing promise of being very hardy too, including some species. I. brevicaulis, and a small form of I. fulva have been with me through many winters without any special care, and the first I. brevicaulis that I had was said to have been grown in Minnesota for 50 years."

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Weather woes have taken up more than their share of Robin space this past year or so. Here are a few examples, showing what iris can take and what they can't.

Dr. Virginia Winkler, Deerfield, Illinois: During July in 1982, Deerfield suffered extensive flooding, and Virginia's garden was under several feet of water for several days. "I lost all of the pumilas in my little rock garden . . . and about 80% of the SDBs are lost. Their roots just rotted off standing under water and then in the soggy ground for the extended period of time. No TBs left including some of my own seedlings which had bloomed this year for the first time. All the I. cretica rotted as did all the various I. tectorum. But interestingly PALTEC survived. It looks puny but it is alive. I. graminea came through in great shape and matured seed. I. brandzei standing right next to I. graminea, but the least subjected to the flood popped out . . . I. cristata made it through and flourished. The Japanese and Siberians loved it--they are looking better than I have ever seen them. One piece of I. dykesii made it through the winter and the flood. The flood probably helped it . . . Iris laevigata variegata gave up the ghost and one I. laevigata colchesterensis gave up but the other plant is still hanging in there . . . I. tenax, which had hung on for two years, went by way of the flood."

"An observation on I. graminea: Many people believe that since it is a Spuria Iris it has to be grown on the alkaline side. I have three clumps. One grows in just a couple of hours of morning sun in a dry spot in back of some lilies. The second one is in with the Siberian irises and gets almost full sun with more acid soil and more water. The third and best clump is growing with the Japanese irises in far more moist acid soil. It would appear that the lovely little graminea iris is capable of adapting to just about any situation and therefore could and should be grown and enjoyed by many more people."

For Trevor Nottle of Stirling, South Australia, the problem has been drought. His area had had no rain for 22 weeks, prior to January 25, 1983, with no germination on the wheat crop. "We flowered three

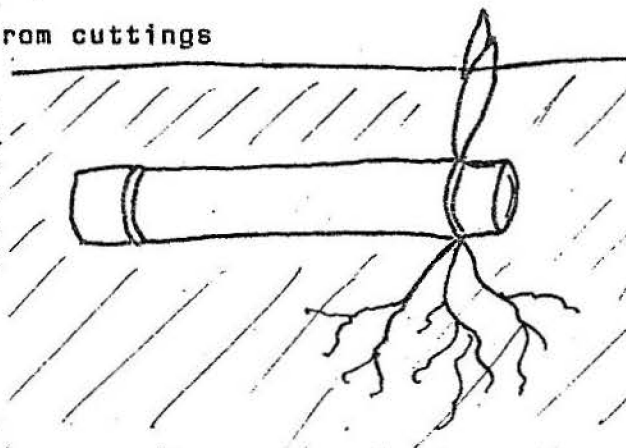
clumps of I. helophila, but had nothing on I. delavayi or 'Mirza Citronella.' These are all late flowerers and things got very dry and hot here very quickly . . . my seedlings seem o.k. I put out a row of I. bulleyana which though small on top growth have made good root systems. A row of I. graminea even managed a few flowers.!"

David Heikamp of Metairie, Louisiana describes his methods of growing some of the irids: "I have planted my Sphenostigma coelestinum in the open ground in a sandy well-drained site. It had produced beautiful flowers, 2 3/4 inches across in early spring, and with all the rain last month (15 inches) they are all blooming again . . . I planted seeds and already have some more up . . . I also put my Herbertia in the ground--many in pots rotted even though they were in well-drained pots . . . I have them in with my Pinewoods Lilies (Alophia drummondii) and cannot tell them apart by the leaves. My Pinewoods Lilies are blooming again now, probably because of the heavy rains last month, since they already died back earlier in the summer even though they were watered regularly. They like a dry soil in the winter, and will rot for sure if they are too wet in winter dormant period."

"I'll probably divide my Louisiana irises sometime in September. Most people recommend August, but I find it is better to wait as it is usually too hot for that in August and the plants suffer no matter how much you water."

#### Iris Wattii from cuttings

Trevor Nottle, Stirling, South Australia writes: "My Iris wattii were grown from stem cuttings of the bamboo-like flowering stems. I made cuttings with two nodes and buried them completely in leaf-mould and pea gravel like this:"



\* \* \* \* \*

Iris tectorum has a rival as a "roof iris!" Irises, apparently bearded, possibly I. pallida, are grown on the ridgecombs of thatch roofed farm houses in Normandy, to judge by some travel pictures of France that we saw last month.

JGW

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Alata to Alata  
CONTINUOUS BLOOM THROUGHOUT THE YEAR  
Edith S. Cleaves

Returning from a tour of an iris garden in Modesto, conversation gravitated to iris species. Suddenly, out of a clear blue sky, this disdainful remark "Weasels! Give me the tall bearded irises--you can see them!"

Humbleness is never gaudy and can be gentle and beautiful. While the pogons hold enjoyment for me, I cannot forget that the patience of men who located, who grew and who wrote about the various species, is truly responsible in many ways for the size and beauty of today's bearded irises. Please, I'll take the lovely irises, the "weasels."

In this Santa Clara Valley, growing some of the iris species has been fun as a hobby; of course, the moderate climate probably makes it easier for good growth if the soil and locations are well planned.

BRAVES WIND, COLD, RAIN

Where is the brilliance of the tall-bearded in December and January? At best, only a few inches of future fans are showing above the soil. But one of the "humble" irises braves the cold, wind and rain, persistently blooming. *I. unguicularis* (winter *stylosa*), will be a spot of colour--lavender, dark blue, white or possible the so-called pink. If foliage is cut back sharply in late August you will be able to see the blooms more easily. Picked, while in bud, they will open nicely in the house for arrangements. Pollenizing isn't always easy--weather conditions may hamper. Too, the seedpod, almost tucked into the ground, may easily be overlooked in a large clump. There are several sub-species, but the usual ones are *I. unguicularis*, *I. unguicularis alba* and hybrid IMPERATRICE ELIZABETTA--a dark blue, with shorter, finer foliage.

The truly lovely Juno, *I. alata*, has been successful--if potted, slightly ruffled, a dainty blue with an orange ridge--it rises from the sheathed "corn-stalk" type foliage. At the base of the bloom are three blue appendages which give the species the name "winged Iris." After blooms have faded, no more moisture. Put the container where it can dry, dry, even protected from evening moisture. In late September or early October new growth begins. Now you feed and water--putting it where there is some sun but protected from frost. When good growth has been made, the *I. alata* can be brought indoors where you can enjoy the bloom and you will be repaid for all the attention given it. Did you know this iris is one of two in which the spherical grains of pollen are covered with minute spines.

MORE AND NEWER COLORS

February will bring more and newer colors. Possible some of the dwarfs are ambitious, certainly *stylosa* is still in bloom. In your border, rock garden or in pots, members of the *Reticulata* family suddenly put forth their rather formal flowers. The tiny gen, *I. bakeriana*, one inch and dark blue-purple, *I. hystrio*, *I. hystrioides*

major, the bright yellow of little I. Danfordiae, the hybrids Hercules, J.S. Dijt and the not-so-formal pale blue of Cantab may start their blooming period, which can last well into February with planned planting. Easily grown, after their blooming period, allow these iris to dry thoroughly, storing the netted bulbs carefully until Fall, when it is time to replant. This is of course potting procedure.

#### RETICULATAS MULTIPLY WELL

Reticulatas multiply well, thus the need to replant at least every two years for better results.

Anyone fortunate enough to have the Junos--I. persica or I. rosenbachiana--also should be enjoying their bloom, now.

A month of winds, March blows in more rainbow colors, for now the Xiphium section, the Dutch Iris, in a sunny part of the garden, can have a nodding acquaintance with the Evansia, I. japonica blooming in a shady area, with good growth in a slightly acid soil. In a north exposure they bloom profusely, often compared to orchids.

Nearby, in filtered shade and again, slightly acid soil, the many Californians are adding their graceful beauty, from the white I. douglasiana alba to the brilliant deep blue of I. tenax. For height and background, I. munzii is perfect. On 24 inch stems, from a pale blue to a fairly dark blue, this iris gives a myriad of continuous bloom well into May. And it self-sets seeds galore! Easy to pollinize, I have crossed it with I. tenax hoping for a taller, deeper blue hybrid.

#### BLOOMS IN SUNNY WINDOW

I. bucharica, another Juno, with white and yellow flowers, does well potted and blooms nicely in a warm sunny south window. Many have had excellent success with it outside. Gophers seem to favor it, too!

The Arils, Oncocyclus, Regelias and Onco-gelias should be drawing interest now and into April.

Showers of April towards the last of the month may bring consternation! Will your species be undamaged for that annual Iris Show! After the middle of the month the tall-bearded pogons will be the center of attraction, of course. But take time and enjoy the dwarfs, too! I. pumila, I. mellita, the gold of I. reichenbachii and also I. chameeiris--if you are a fortunate owner of one.

The Evansias in bloom should now be, I. confuse, I. wattii, the delightful Japanese roof irises, I. tectorum, and I. tectorum alba and the dainty hybrid PALTEC. These last three grow and bloom profusely in acid soil, well fertilized, and with shade after midday. Moving the clumps about every two years helps to keep them in good condition. They draw a great deal of nourishment out of the soil and it is therefore essential to feed them often. Has anyone I. henryi or I. minuta? As they bloom at this season, it would be so nice even to SEE one!



The Xiphiums, Junos, Oncocyclus and Regelias fill out the early part of April. How regretful it is that their blooming period is not longer!

Some of the Hexagones and Louisianas are now starting. Sometimes, the entrance of May brings a real hail storm, and our hope for show irises falters again. But somehow, it all works out nicely and you find your pogons, your late Californians, a few Evansias, and Xiphium are still colorful. By now, the spurias have come into full bloom and I. ochroleuca, I. monnieri, and I. aurea form a background for the smaller sub-species of spuria section: I. kerneriana, yellow, 10 inches; I. sintenisii, lovely deep blue, 10 inches (how well this does in a normal border and it sets numerous seed pods--also blooms again in September!); I. graminea, of plum color and fragrance, only six inches tall.

#### YELLOW AND GRAY FLOWERS

Iris foetidissima, though it has dull yellow and gray flowers, can be used for hybridizing. Crossing a yellow spuria with the I. foetidissima pollen has brought forth plants with lovely tall, shiny green foliage; graceful, too. The foliage has not turned brown in two years and this year, when the plants bloom, should give the answer to the garden value of the cross.

I. hyacinthiana [ensata] in the rock garden has proved to be a heavy and long blooming plant, setting many seed pods, after the lovely blue flowers have faded. (now I. lactea, Ed.)

I. kumeonensis [pseudoregelia] will bloom this May, I hope! Planted from seed, only one survived. A new planting last August, 1956, is more hopeful for there are three plants, 2 inches tall already, from the three-year-old seed.

AS June comes on, the Japanese iris are ready to carry on the color. The exquisite I. kaempferi (now I. ensata, Ed.) and the Higo strains, planted in a richly prepared acid soil bed where they will have filtered sunshine, are exciting. Please, no lime conditions, if you want them to live. Flood them gently and deeply with water on the hot days. They thrive best with their "toes cool." Others to bloom are I. laevigata, I. pseudacorus, I. versicolor and I. shrevei. [I. virginica Shrevei. Ed.]

#### XIPHIODES NOT OFTEN SEEN

I. Xiphioides (English Iris) is not too frequently seen. Having lost a number from my first planting, I found out they too, do well in a slightly acid soil. There seems to be a challenge for their success here, so this year there's hope for about fifty plants to fill in this month.

I. "acuta" (Sibirica section) has a most unusual hairy or furry-looking root stock. This and other Siberians should do well if planted in slightly acid soil and kept well watered. (I. sibirica ACUTA. Ed.)



Irisess are now slowing down, but for July and for August there is one--I. dichotoma (of the Pardanthopsis section) that will be welcomed. (No longer in the Genus Iris. Ed.)

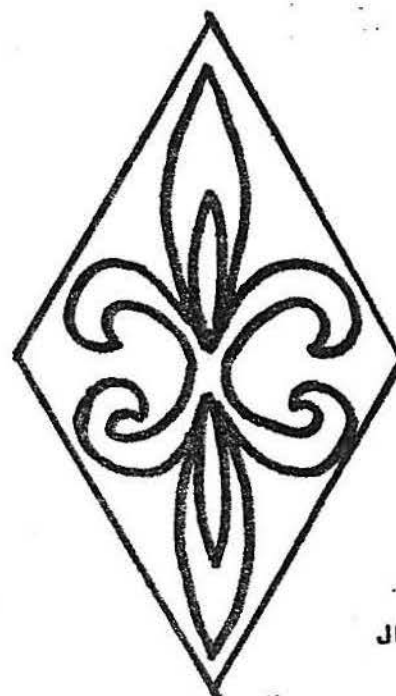
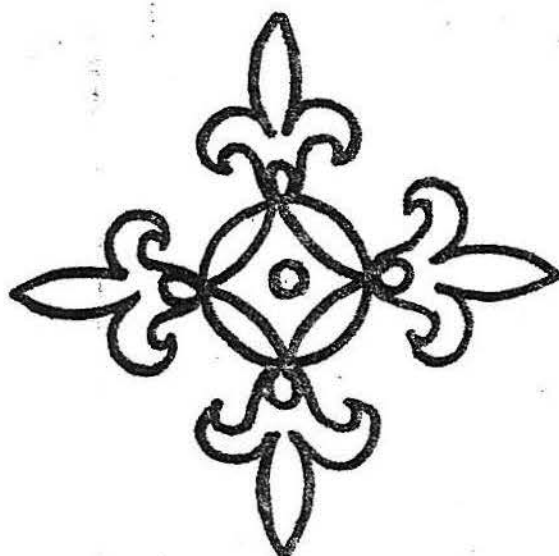
Somehow there are always a few dwarfs or a white table iris that also enjoy these months for some reason. September and October are the months for the remontants to start their cycle once again and even ungicularis has started blooming in September.

November and December--and now we start the year all over. I. elata has bloomed on Thanksgiving Day, also on Christmas and New Year's Day.

(Reprinted from Region 14 Bulletin, Spring, 1948.)

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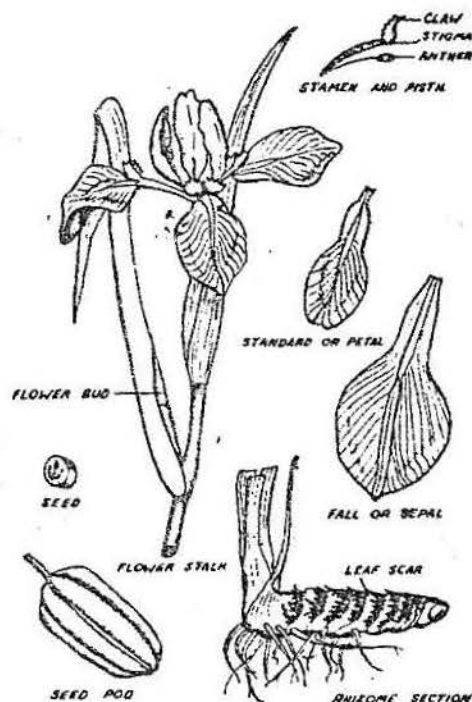
Here is yet another example of iris-like designs from antiquity. These come from an account of a classic archeological discovery made in the USSR in the 1920's, "Frozen Tombs of Siberia, Pazyryk Burials of Iron Age Horsemen," by Sergei I. Rudenko, translated and edited by Dr. M. W. Thompson, University of California Press, Berkeley and Los Angeles, 1976. The tombs date from about 400 to 400 B.C., and belonged to a people described as being "like the Sythians"--bold horsemen known to the ancient Greeks--but not certainly identified with them. The occupants seem to have been chieftains, buried with their wives, numerous horses, and extensive grave goods. Permanently icy conditions have allowed the rare survival of fabrics and leather work, with elaborate appliqued, embroidered and woven designs still brightly colored. Animals, lifelike and full of action, were favorite subjects for decoration. Plant designs were more stylized. The four fleur-de-lis with the circle differ little from modern examples. The figures in the diamond-shaped design, however, actually suggest an iris flower . . . certainly these people lived in an area where irises still grow.



# Louisiana Iris

by JOE G. RICHARD  
Member of Baton Rouge Men's Club.  
Asst. Director and State Agent  
Agricultural Ext. Service  
Louisiana University.

(Another of the heirlooms received by the King County Iris Society though probably more recent than the Viosca article: page 1082. The page we have was apparently reprinted from an Extension Bulletin by the Baton Rouge Men's Garden Club. Descriptions are of four "good" species but not including the type species, *I. hexagona*, and including one that does not belong in Series Hexagonae--the "Louisiana" species--but in Series *Laevigata*. Ed.)



Parts of the Iris Plant

The Louisiana native Irises have gained national acclaim and are becoming more popular with the amateur collectors and gardeners, both for their variety of color and beauty of flower. The blooming season starts in March on the Gulf Coast and moves northward with the season. The low areas of Louisiana along the edges of its numerous streams have been planted with a wide distribution of the floating native Iris seeds.

As a garden flower, the wild Irises do well under a wide variety of soil and garden conditions and landscapes. They will thrive on highlands and on lowlands. Bog culture is ideal if landscape permits. The shallow edge of a lake or pond is a most naturalistic spot for Louisiana Irises.

Following is a brief description of five groupings of types found in Louisiana:

1. Rust-Red (Fulva) Small flowers with many blooms of rust red shades on erect stem about 30 inches in height. Both petals and sepals droop and have no signal patch. It occurs in color values of crimson, pink, and even clear yellow.

2. Abbeville Types. The Abbeville Red or "Super" Fulva is found in southwest Louisiana near Abbeville. These giant reds are in a class all their own. The color range is from red to yellow and brown to deep purple. The wide overlapping petals and sepals are sometimes marked with a long crest or signal patch. Sometimes they are void of any signal markings. Most blooms have a wonderful substance and may be of crepe-like

texture or a velvety sheen. The style arms are short. The foliage is broader and the rhizomes are larger than the regular *fulva*. (Now *I. nelsonii*. Ed.)

3. Dwarf (Foliosa) (Including *Flexicaulis*, *Brevipes*, and *Mississippiensis*) Medium size flower of much substance with a color range from blue shades to white. Blooms may occur on zig-zag or fairly straight stems low in the foliage. Plants and rhizomes are much smaller than other forms. Also, it blooms later and usually grows in shadier places than others. (Now *I. brevicaulis*. Ed.)

4. Giant blues (*Giganticaerulea*) Large, recurving flower parts ranging in color from blue and purple to white. Flowers with vertical petals (standards) and horizontal sepals (falls) are borne at different levels on very tall, erect stalks.

5. Pine Flat Types (*Virginica*, including *Versicolor*, *Shrevei*, and *Carolina*) Medium size flowers ranging in color from deep blue to white with heavily veined fragrant blossoms on lateral branching slender stems. The dark green foliage has a decided mid rib. This characteristic is not found in any other Louisiana native Iris. It is not known to cross pollinize with other forms of Louisiana native Irises. (These species belong to Series *Laevigata*, not *Hexagona*, or "Louisiana" Section. Ed.)

Hybrids found in the wild, as well as those produced in the garden by hybridizers, number into the thousands. As these hybrids make good, they may be given a variety name. Some of the best Irises have no name, while others have several names. Many of the named hybrids have been registered and the descriptions are recorded with the American Iris Society.

You will be interested in increasing the quantity of your best varieties.

There are two practical methods of perpetuating or increasing Iris stock via vegetative and seed propagation.

**Rhizome Separation:** Under natural conditions, single rhizomes usually multiply two or threefold in a year, but have been known to multiply 21 fold, spreading radially. When a single rhizome forms a bloom stalk, it usually produces also two side shoots. These shoots form new rhizomes and continue the process of natural increase.

Seed pods will develop on most wild Irises. If pollinated, each pod produces from several to about 60 cork-like seeds. This method of increase is very important to Iris hybridizers in developing new forms and colors, but it is slow. All the seeds in a pod may not germinate the first year.

If Iris seeds are left on the stalk to fully mature and harden, they germinate very slowly. The fully matured, late harvested, dried-out seeds will go into what is known as a "rest-period" and it may take several years for all of them to sprout. However, you can hasten

germination of Iris seed by harvesting them when the seed pod is still partially green. Planting at harvest time (June and July in Louisiana) will produce a higher percentage of seedlings by fall and early spring.

Soil and cultural requirements of the native Irises are opposite to those of the bearded Iris. Natives thrive best in slightly acid or sour soil with abundant moisture, whereas the bearded do their best in alkaline or sweet soil and extra good drainage. Highlands, lowland, or even bog conditions are satisfactory.

Plenty of organic material such as animal manures, compost, or green legume crops turned under with the soil, plus commercial fertilizer are necessary for a good Iris bloom crop. Poultry yard manure is the most effective for Iris.

The well-rotted organic material should be mixed or worked into the soil while preparing the beds and also spread lightly over the rhizomes just after planting. Use at least a good wheelbarrow load per 6 to 8 square feet.

Supplemental plant food in the form of commercial fertilizer should be applied in several applications both in early fall when roots start developing and very early spring, about two months before blooming. A nitrogen fertilizer, such as nitrate of soda, sulfate of ammonia, or ammonium nitrate is recommended.

Moisture is most needed during early fall when plants are getting established and in early spring for about two months prior to blooming. This usually coincides with rainy seasons in Louisiana.

During these periods, if weather is too dry, it may be necessary to irrigate thoroughly. One thorough soaking of the Iris beds is better than an occasional light sprinkling. Soils high in organic matter store more moisture for dry seasons. This is why Irises do so well in a fertile soil where a lot of humus and liberal mulch has been added.

\* \* \* \* \*

The Garden Journal of the Royal Horticultural Society vol. 107 part 10, October 1982, page 386, has a photograph of Iris ensata in color.

\* \* \* \* \*



MAJOR ADDITIONS TO THE LIST OF PUBLISHED COLOR PHOTOS OF IRIS SPECIES

Compiled by: Homer Metcalf

A number of major publishing events in iris literature have enabled the preparation of an extensive list of published color photos of species irises, comprising a total of 121 taxa. These photos represent around half the species recognized in the genus *Iris* L. Readers with access to the references listed below will be able to gain a much better concept of the great variability in flower and plant form among irises than heretofore.

The list presented here is restricted to color photos and does not include references to black and white photos or line drawings that may appear in the publications cited. Most interspecific hybrids of garden origin have been omitted.

The list is presented in a taxonomic framework since a number of new species have been described recently and their placement in the genus would not be familiar to many readers. In general, the arrangement of the genus used by Brian Mathew (Royal Botanic Gardens, Kew) in his recent book has been followed, but there has been no hesitation to depart from that arrangement in minor ways when it seemed preferable. Only partial synonymy is given.

Each entry in the list is followed by one or more code symbols at the right hand margin of the page. The key to these code symbols will be found in conjunction with the list of references. Since only six references are involved, the code should prove not too complicated for the erudite readers of SIGNA.

Eventually, all the species of *Iris* may be expected to be illustrated in color in some publication. While those from some parts of Asia may be among the last to be so illustrated, readers are reminded that not even all the North American species have appeared in published color photos. It would be appreciated if readers will call to my attention color photos of species not yet mentioned in this series of notes.

REFERENCES

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|--|------------------------|
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Genus IRIS L.Subgenus IRISSection IRIS (Bearded irises)

- |  | Source<br>Code |
|--|----------------|
| <u>I. albertii</u> Regel   | K              |
| <u>I. albicans</u> Lange   | K              |
| <u>I. attica</u> Boissier & Heldreich                                  | M              |
| <u>I. germanica</u> L., 'Florentina' (syn.: <u>I. florentina</u> L.)   | K              |
| <u>I. imbricata</u> Lindley  | M, W&M         |
| <u>I. pallida</u> Lamarck, spp. <u>pallida</u>                         | K              |
| <u>I. pallida</u> Lamarck, spp. <u>cengialtii</u> (Ambrosi) M. Foster  | M              |
| <u>I. reichenbachii</u> Heuffel  | K              |
| <u>I. schachtii</u> Markgraf   | K              |
| <u>I. suaveolens</u> Boissier & Reuter                                 | K              |
| (syn.: <u>I. mellita</u> Janka, <u>I. glockiana</u> O. Schwarz)        |                |
| <u>I. variegata</u> L.   | K              |
| (syn.: <u>I. flavescens</u> Delile, <u>I. reginae</u> Horvat & Horvat) |                |
| <u>I. x sambucina</u> L. ( <u>I. variegata</u> x <u>I. pallida</u> )   | K              |
| <u>I. varbossiana</u> Maly (probably a form of <u>I. germanica</u> L.) | K              |

Section ONCOCYCLUS (Siemssen) Baker

- |   |           |
|---|-----------|
| <u>I. acutiloba</u> C. A. Meyer, ssp. <u>lineolata</u> (Trautvetter) Mathew & Wendelbo    | W&M       |
| (syn.: <u>I. helenae</u> Barbey, <u>I. ewbankiana</u> M. Foster)                          |           |
| <u>I. atrofusca</u> Baker   | K         |
| <u>I. atropurpurea</u> Baker  | M         |
| <u>I. barnumae</u> Baker & M. Foster  | M, W&M    |
| <u>I. barnumae</u> , spp. <u>barnumae</u> , f. <u>uruiensis</u> (Hoog) Mathew & Wendelbo  | W&M       |
| <u>I. barnumae</u> , spp. <u>barnumae</u> , f. <u>protonyma</u> (Stapf) Mathew & Wendelbo | W&M       |
| <u>I. barnumae</u> , ssp. <u>demawendica</u> (Bornmueller) Mathew & Wendelbo              | W&M       |
| <u>I. gatesii</u> M. Foster   | K         |
| <u>I. iberica</u> Hoffmannsegg, spp. <u>elegantissima</u> (Sosnovski) Fedorov & Takhtajan | K, W&M    |
| <u>I. iberica</u> Hoffmannsegg, spp. <u>lycotis</u> (Woronow) Takhtajan                   | M, W&M    |
| <u>I. lortetii</u> Barbey   | C&L       |
| <u>I. meda</u> Stapf (syn.: <u>I. fibrosa</u> Freyn)                                      | M, W&M    |
| <u>I. paradoxa</u> Steven   | K, M, W&M |
| <u>I. samariae</u> Dinsmore   | K         |
| <u>I. susiana</u> L.  | K         |

Genus IRIS L.Source  
CodeSubgenus IRIS (cont.)Section REGELIA Lynch

<u>I. afghanica</u> Wendelbo	M, W&M
<u>I. heweri</u> Grey-Wilson & Mathew	W&M
<u>I. hoogiana</u> Dykes	C&L
<u>I. korolkowii</u> Regel	K, M, W&M
<u>I. kuschkenensis</u> Grey-Wilson & Mathew	W&M
<u>I. lineata</u> M. Foster ex Regel	W&M
(syn.: <u>I. karategina</u> B. Fedtschenko)	
<u>I. x regeliocyclus</u> 'Dardanus'	C&L

Section PSEUDOREGELIA Dykes

<u>I. kamaonensis</u> Wallich ex D. Don	K, M
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Subgenus LIMNIRIS (Tausch) SpachSection LOPHIRIS (Tausch) Tausch (The *Evansia* irises)

<u>I. cristata</u> Solander	M
<u>I. japonica</u> Thunberg	M
<u>I. milesii</u> M. Foster	K
<u>I. tectorum</u> Maximowicz	C&L

Section LIMNIRISSeries CHINENSES (Diels) Lawrence

<u>I. minutoaurea</u> Makino	M
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Series RUTHENICAE (Diels) Lawrence

<u>I. ruthenica</u> Ker-Gawler	K
<u>I. uniflora</u> Pallas	K

Series TRIPETALAE (Diels) Lawrence

<u>I. setosa</u> Pallas ex Link	M, K
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Series SIBIRICAE (Diels) LawrenceSubseries CHRYSOGRAPHES (Simonet) Lenz

<u>I. chrysographes</u> Dykes	McE
<u>I. forrestii</u> Dykes	McE
<u>I. wilsonii</u> C. H. Wright	K

Subseries SIBIRICAE (Diels) Lenz

<u>I. sibirica</u> L.	K
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Series CALIFORNICAE (Diels) Lawrence

<u>I. bracteata</u> S. Watson	C
<u>I. fernaldii</u> R. C. Foster	C
<u>I. innominata</u> L. F. Henderson	C, K, M
<u>I. macrosiphon</u> Torrey	C
<u>I. tenax</u> Douglas ex Lindley	C, K
<u>I. tenax</u> Douglas ex Lindley, spp. <u>klamathensis</u> Lenz	C
<u>I. tenuissima</u> Dykes	C, K

Series LONGIPETALAE (Diels) Lawrence

<u>I. longipetala</u> Herbert (prob. a form of the following sp.)	M, K
<u>I. missouriensis</u> Nuttall	K

Series LAEVIGATAE (Diels) Lawrence

<u>I. ensata</u> Thunberg (syn.: <u>I. kaempferi</u> Siebold)	K
<u>I. laevigata</u> Fischer	C&L, M, K
<u>I. pseudacorus</u> L.	C&L, K
<u>I. versicolor</u> L.	M, K

Genus IRIS, subgenus LIMNIRIS, section LIMNIRIS, (cont.)Source  
Code

Series <u>HEXAGONAE</u> (Diels) Lawrence	
<u>I. brevicaulis</u> Rafinesque	K
<u>I. fulva</u> Ker-Gawler	K
<u>I. giganteaerulea</u> J. K. Small	K
Series <u>SPURIAE</u> (Diels) Lawrence	
<u>I. crocea</u> Jacquemont ex R. C. Foster	K
<u>I. kerneriana</u> Ascherson & Sintenis	K
<u>I. pontica</u> Zapalowicz	K
(syn.: <u>I. humilis</u> M. Bieberstein, <u>I. marschalliana</u> Bobrov)	
<u>I. spuria</u> L., spp. <u>carthalinae</u> (Fomin) Mathew	K
<u>I. spuria</u> L., spp. <u>halophila</u> (Pallas) Mathew & Wendelbo	K
<u>I. spuria</u> L., spp. <u>musulmanica</u> (Fomin) Takhtajan	M, W&M
<u>I. spuria</u> L., spp. <u>notha</u> (M. Bieberstein) Ascherson & Graebner	K
<u>I. spuria</u> L., spp. <u>spuria</u> , var. <u>subbarbata</u> (Joó) Dykes	K
Series <u>FOETIDISSIMA</u> (Diels) Mathew	
<u>I. foetidissima</u> L.	K
Series <u>TENUIFOLIAE</u> (Diels) Lawrence	
<u>I. songarica</u> Schrenk	M, W&M
Series <u>ENSATAE</u> (Diels) Lawrence	
<u>I. lactea</u> Pallas (illus. as <u>I. ensata</u> )	K
Series <u>SYRIACAE</u> (Diels) Lawrence	
<u>I. grant-duffii</u> Baker	K
Series <u>UNGUICULARES</u> (Diels) Lawrence	
<u>I. unguicularis</u> Poiret (syn.: <u>I. stylosa</u> , <u>I. cretensis</u> )	K
<u>I. unguicularis</u> Poiret, 'Cretensis'	M, K

Genus IRISSubgenus NEPALENSIS (Dykes) Lawrence

<u>I. decora</u> Wallich (Syn.: <u>I. nepalensis</u> D. Don, <u>I. yunnanensis</u> Léveillé)	M, K
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Genus IRISSubgenus XIPHIUM (Miller) Spach

<u>I. latifolia</u> Miller (illus. as <u>Xiphium latifolium</u> )	K
(syn.: <u>I. xiphioides</u> Ehrhardt)	
<u>I. serotina</u> Willkomm	M
<u>I. xiphium</u> L. (illus. as <u>Xiphium vulgare</u> , var. <u>lusitanicum</u> )	K

Subgenus SCORPIRIS Spach (The Juno irises)

<u>I. aitchisonii</u> (Baker) Boissier	W&M
<u>I. albo-marginata</u> R. C. Foster	M
<u>I. aucheri</u> (Baker) Sealy (syn.: <u>I. fumosa</u> Boissier & Haussknecht ex Boissier, <u>I. sindjarensis</u> Boissier & Haussknecht)	M, W&M
<u>I. bucharica</u> M. Foster (syn.: <u>I. orchioides</u> of gardens)	K, W&M
<u>I. cabulica</u> Gilli	W&M
<u>I. carterorum</u> Mathew & Wendelbo	W&M
<u>I. caucasica</u> Hoffmannsegg	W&M
<u>I. cycloglossa</u> Wendelbo	W&M
<u>I. doabensis</u> Mathew	M, W&M
<u>I. drepanophylla</u> Aitchison & Baker	W&M
<u>I. drepanophylla</u> Aitchison & Baker, ssp. <u>chlorotica</u> Mathew & Wendelbo	W&M



## Genus IRIS, subgenus SCORPIRIS (cont.)

Source  
Code

<u>I. fosteriana</u> Aitchison & Baker	M, W&M
<u>I. hymenospatha</u> Mathew & Wendelbo	W&M
<u>I. kopetdagensis</u> (Vvedensky) Mathew & Wendelbo	W&M
<u>I. kuschakewiczii</u> B. Fedtschenko	M
<u>I. magnifica</u> Vvedensky	C&L, K
<u>I. microglossa</u> Wendelbo	W&M
<u>I. nicolai</u> Vvedensky (prob. = <u>I. rosenbachiana</u> Regel)	K, M
<u>I. odontostyla</u> Mathew & Wendelbo	W&M
<u>I. persica</u> L.	W&M
<u>I. planifolia</u> (Miller) Fiori & Paoletti (syn.: <u>I. alata</u> Poiret, <u>I. scorpioides</u> Desfontaines)	K
<u>I. platyptera</u> Mathew & Wendelbo	W&M
<u>I. porphyrochrysa</u> Wendelbo	W&M
<u>I. pseudocaucaasica</u> Grossheim	M, W&M
<u>I. rosenbachiana</u> Regel	W&M
<u>I. stocksii</u> (Baker) Boissier	W&M
<u>I. wendelboi</u> Grey-Wilson & Mathew	W&M
<u>I. xanthochlora</u> Wendelbo	W&M
<u>I. zaprjagejewii</u> N. Abramov	M

## Subgenus HERMODACTYLOIDES Spach (The "Reticulata" irises)

<u>I. bakeriana</u> M. Foster	K
<u>I. danfordiae</u> (Baker) Boissier	M, K
<u>I. histrio</u> Reichenbach, f.	M
<u>I. histrio</u> Reichenbach, f., var. <u>aintabensis</u> G. P. Baker	K
<u>I. histrioides</u> (G. F. Wilson) S. Arnott	M, K
<u>I. pamphylica</u> Hedge	M
<u>I. reticulata</u> M. Bieberstein	C&L, M, W&M

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## SPECIES IRISES AS A LEARNING TOOL

SIGNA member Michael Wynn of Canton, Ohio, has been sharing his iris hobby with school children in his area, giving slide programs and helping with plant projects, most recently with the 4th grade class of Woodlawn School. With his assistance, the children have planted seed furnished by the SIGNA seed exchange, using little greenhouses made from plastic jugs. When Michael borrowed the SIGNA slides, we made up a special set, each species with a little bit of geographical or historical lore connected to it. Seeds and slides together really fired up their enthusiasm, and just before school was out last spring, we received a check for \$15.00 from the class, through their PTA, in support of our activities. We are pleased to make these 4th graders our first junior members. We are sending them a group membership, and back issues of our publication. High teacher interest in the project promises continuity, and we'll be hoping for further reports on their progress and results.

JGW

## IRIS SEROTINA -- A LATE-FLOWERING XIPHION

Vernon H. Heywood, B.Sc.

IRIS SEROTINA was published by Willkomm in Willkomm & Lange's *Prodromus* (1870). He based it on specimens he had collected in the Cerro de Javalcon (Province of Jaen, Andalucia) and gave it a short description differentiating it from *I. xiphium*. The main features were its late flowering (August, September), 2-3 flowered stem, reddish, elegantly striated spathe-valves, oblong-lanceolate limb of the fall produced into a short linear claw, and short linear-setaceous upper stem-leaves. The value of these characters, *per se*, in affording *I. serotina* specific rank was doubtful, although nowadays late flowering is recognised as an important isolating mechanism (seasonal isolation); in fact Dr. Anderson considers difference in flowering season as one of the main factors in isolating certain iris species (v. Dobzhansky (1941) 260).

Foster (1893) in his review of bulbous irises included *I. serotina* as a species with the comment -- were the plants found in good condition? Dykes (1913) in his monograph relegated Willkomm's iris to the synonymy of *I. xiphium*. The iris had, by then, been collected in two new localities by Reverchon: the Sierra de Cazorla and the S. del Pinar. Dykes saw Reverchon's specimens in the Edinburgh Herbarium, but his only allusion to *I. serotina* was as follows: -- "I have had in cultivation some bulbs (...) named *I. Taitii*(...) and I cannot distinguish the plants either in growth or in the flowers from slender forms of *xiphium* except in their habit of flowering late in June or even in July. Willkomm's *I. serotina* was probably a similar form (Cf. Reverchon's specimens from the Sierras de Cazorla and del Pinar at a height of 5,400 feet and 5,100 feet which flowered in September and August respectively)".

Dykes's ruling on *I. serotina* seems to have been accepted by most Iris authorities. However, the Spanish botanist Cuatrecasas (1928) collected bulbs of an iris in the Sierra de Magina (Prov. of Jaen) and these were flowered in the garden of the Museo de Biologia, Barcelona, and determined by Cuatrecasas as *I. serotina*. In August, 1929, Cuatrecasas (1930) again found the iris in the Sierra de Magina, "in perfect state of flowering". And there the matter rested until another Spanish botanist, Dr. Pio Font Quer published in 1932 a paper of considerable importance concerning this late-flowering species. He related how bulbs of an iris brought back by Cuatrecasas from the Sierra de Magina, in 1929, had flowered in July at the Botanic Garden of the Museo de Ciencias Naturales, Barcelona, and how he was surprised to find that the three inner tepals (the standards) were reduced to minute linear processes, so that the perigonium appeared to consist entirely of the three outer tepals.

I have examined the specimens of *I. serotina* in the Edinburgh Herbarium from the Sierra de Cazorla and found the same reduction of the inner tepals. So far we can follow Font Quer, but he goes on to say "...but it was evident to me that it could not pertain to that specific entity of Willkomm (*I. serotina*), because that the author included it in the section Xiphion and separated it from the type of that section by secondary characters". Font Quer, indeed, places *I. serotina* in section Juno although I am at a loss to understand why; but this aspect is discussed later.

In order to settle the question of the identity of the "Iris of the Magina" beyond doubt, Font Quer obtained the type of *I. serotina* from Willkomm's own herbarium. This enables him to "confirm in an unequivocal manner that Cuatrecasas had defined exactly the Iris of the Magina although the characters of *I. serotina* do not completely agree with that species". As a further check, he examined bulbs from the Cerro de Jabalcuz (locus classicus) and found that, although they had no flowers, their vegetative characters were the same as those of Willkomm's type and of the plant of the Magina; he then had not "the least doubt about the inexplicable error of Willkomm in taking such a distinct species, as this is, for a form akin to

*I. xiphion* (i.e., *xiphium*)". According he re-described it as below.

It should be added here that del Amo y Mora (1871) in his *Flora of the Iberian Peninsula*, published one year after Willkomm & Lange's *Prodromus*, included *I. serotina* with quite a full description: he noted the inner tepals as "erect, violet, obovate". This was, however, not based on a specimen but on the assumption that the characters of *I. serotina*, other than those used by Willkomm to differentiate it from *I. xiphium*, were the same as in that species.

Recently Prof. A. Caballero, Director of the Jardin Botanico, Madrid, included *I. serotina* Wk. in his *Illustrations of the Spanish Endemic Flora* (1943) but although his figure portrays the reduced inner tepals accurately, he made no reference to this remarkable condition in the text. Obviously he was not aware of Font Quer's study, but to have figured such a unique feature without comment is astonishing.

It is rather surprising to find in Col. Grey's volume on the *Iridaceae* (1937) a shortened translation of Font Quer's description under the name *I. Cuatrecasaii* Font Quer. Font Quer did regard the plant of the Magina for some time as *I. Cuatrecasaii* in mente but after proving satisfactorily that it was in fact *I. serotina* Willk. he abandoned this idea.

As noted above, Font Quer stated that the plants from the Sierra de Magina do not completely agree in certain characters with Willkomm's type, but, fortunately, he does not say what these characters are. I have not been able to see Willkomm's specimens but on comparing his description with Font Quer's the following discrepancies are revealed: Willkomm describes the spathe-valves as reddish and elegantly striated; Font Quer makes no mention of this feature, but it is certainly true of the specimens I have seen from the Sierra de Cazorla. A second point is Willkomm's description of the outer tepals (the falls) as "oblong-lanceolate, attenuated into a short linear claw". This may at first appear very different from the "ovate-rotund limb, 1.5cm. long contracted into a claw, 2.5cm. long and 7mm. broad" given by Font Quer; if however, "oblong-lanceolate" is interpreted as meaning from apex to base of the tepal (not from base to apex), and if it is remembered that the point where the limb becomes the claw is often difficult to specify, the two descriptions can be reconciled.

#### *Taxonomic Position*

In the light of Font Quer's discovery of the reduced inner tepals in *I. serotina* its taxonomic position needs to be reconsidered. As already mentioned Font Quer places it in subgenus *Xiphion*, section *Juno*. I can find no justification for this action as the characters of *I. serotina*, apart from the inner tepals, agree perfectly with those of section *Xiphion*. The rootstock is a bulb with smooth membranaceous outer roots and does not have thick fleshy roots attached to it as found in the *Juno* section. Moreover, I have examined the pollen grains and found them quite normal and without the finely sculptured bosses characteristic of the *Junos*.

It is possible that Font Quer regards the reduced standards of *I. serotina* as equivalent to the small spreading (horizontal or hanging down) processes that represent the inner perianth segments of the *Juno* Irises; he remarks that *I. serotina* occupies a singular position in the *Juno* section because the inner tepals are erect.

*Iris serotina* is, however, so closely allied to the *Xiphion* section that the best treatment would be to establish a new sub-section of *Xiphion* for it based on the reduced inner tepals and late flowering.

*Distribution*: Endemic to the Andalucian province of Jaen occurring on the three calcareous massifs--the Cerro de Jabalcuz, Montes de Cazorla, and Macizo de Magina. I collected the species in 1948 in the Barranco de Guadalentin, Montes de Cazorla, where a few plants of it were growing in shady pine-woods accompanied by *Helleborus foetidus*, *Scabiosa tomentosa*, *Ballota hispanica*, *Hippocrepis comosa*, *Verbascum*, *Saponaria* spp., etc.

Ed. Reprinted in part from the 1949 Year Book of the British Iris Society



## THE NATIVES ARE NO LONGER WILD!

Jose C. Rivera

The natives are no longer wild. Through hybridization, which has produced a tremendous improvement in color, size and variety, they are now available to all iris growers. Far from their natural habitat, gardeners are selecting from seed-raised plants to develop strains suited to their climates.

Hybrids are best called California Iris or Pacific Coast Iris. The term *Californicae* is best reserved for discussions of the species found in the foothills and at higher elevations of the western mountains--mainly in Washington, Oregon and California.

Early in April of 1978 I visited the Rancho Santa Ana Botanic Garden at Claremont California, where Dr. Lee W. Lenz has done so much for the advancement of the Pacific Coast Native Irises through his hybridizing program.

The seedling patch, or experimental grounds as it is called, was ablaze with all the colors of the rainbow. The different shades of blue, the yellows, the blended colors, together made a sight to behold.

The experimental grounds were closed and I couldn't read the identifying labels through the fence. My disappointment was only momentary, for I had had a peek into the future.

While walking through the gardens, a botanical wonderland with countless specimens and a great variety of plant life, I came face to face with *Iris longipetala*, which I recognized from Mrs. Copley's description in the Fall 1977 *Almanac*; and blooming profusely was *Iris douglasiana*. One species I wanted to see was not blooming. *I. munzii*, which is being used to bring clear blue into the breeding of hybrid Pacific Coast irises.

At one spot I saw a hybrid that I did not know was possible: Caesar's Brother, a siberian, crossed with *I. douglasiana*. The result is a Cal-Sibe called Royal California. Its leaves are slender, medium green, and it is about ten inches high. I saw no flower, but the idea is most intriguing, certainly worth a special trip to the gardens next spring to see what it is like.

My interest in the native iris of California began in the early sixties when I was given some seeds of *Iris douglasiana* hybrids by the late George Stambach, who had worked with them for a long time. Most of the seeds germinated and three of the seedlings were kept. Unfortunately when I was away in Mexico looking for wild-flowers, my plant-sitter mistook the seedling for wild grass and dug them up. When I returned they were beyond hope. My first reaction was unprintable; however, on his own, my friend surprised me later with a peace offering of Ripple Rock and Ojai. Later I acquired Amiguita which has certainly proved a winner through the years. Its colors never cease to delight visitors to my garden and attract newcomers to the ever increasing number of devotees of native iris.



## EDITOR'S COMMENTS

JOAN COOPER

Well, here, for what it's worth is my first issue of SIGNA. I feel very inadequate to do the kind of job that Bruce has done, but I would appreciate your comments--constructive criticism? Let me know what you like, what you don't like and what you would like to see added. And, please, add something yourself. We would like to have your material here by Feb. 1 for the spring issue and August 1 for the fall issue. As you may know, I am editing SIGNA with much capable help from Mary Martin of Fridley, MN and Stan and Dorothy Rudser of Minneapolis. When we finish our job; it is still up to Bruce to run the stencils, assemble and mail them to you. So, you see, he hasn't really retired at all! But with so many involved the deadlines do become more important than ever.

We are excited about another SIGNA publication in the offing. Bobbie Whitehouse has taken on the job of indexing SIGNA from beginning to present. We aren't sure when the publication will be available, but we think it will add immeasurably to the value of what has been a most valuable publication. SIGNA, unlike many Iris publications, is timeless--no outdated, obsolete varieties here (though keeping up with the nomenclatural corrections can be a problem). We are wondering how many of you, given a new and complete index, will be interested in the back issues. Some of them are in very short supply. If there is enough interest, perhaps, they can be reprinted. Let us hear from you. Incidentally, most of the back issues are still available at \$1.50 each from our new publications chairman, Alan McMurtrie.

Alan has also taken on the job of updating our sources list. Please be sure to read his appeal for help on page 1074. Don't, whatever you do; think that he knows all about your favorite source of species--send him the pertinent facts or a copy of the species section of a catalog or price list. Or, if a source has been unsatisfactory, let him know your problem too. If he gets several complaints, we can be sure that is going to be considered too. (Of course, you should probably let the grower/dealer know too).

Other special requests to you the reader--what have you tried in wide crosses and what happened? What species grow well for you wherever you are and what are your special problems that might have interfered with some others. What didn't do well for you. I. missouriensis grows like a weed through a large part of the U.S. but few people have succeeded with it in their gardens from what we hear. Have you?

We are pleased to have reached an agreement with the Aril Society International that we need not ask for permission to reprint material from their publications and we grant them the same privilege. In addition, Sharon McAllister, their editor has sent copies of quantities of material on Aril Species. We are going to be pursuing the same kind of agreement with other groups/sections. It does simplify the editor's job, you know.

Roy Davidson's article on Mesophytic (there, we learned a new word) Irises at Rosedown makes the Seattle Convention a real temptation. Jean's garden will not be on tour as I understand it, but she is a gracious lady who would be pleased to try to fit some of us into her busy schedule.

And isn't it a treat to have Homer's list of pictures, in color yet, of species. By spring we hope we can give you some information on where these publications are available. We wish we had time to do so now, but--deadlines are a bore!

In addition to Alan's commercial sources, we are considering a "service" column--like "wanted" or "where can I buy?" If you are looking for a species iris or a near-species iris, write--it may take time but we may be able to put you in contact with a SOURCE. (We may need an assistant editor for this, but we think it will be useful.) We'll also continue the Q & A section though it is missing in this issue. Didn't anyone have any questions? Bye!

We hope you all noticed in the Spring BULLETIN that our President, Jean Witt, received a richly deserved DISTINGUISHED SERVICE MEDAL from AIS. We are all, I'm sure, pleased and proud, both for her and for SIGNA. We are glad the rest of the iris world has recognized her many, many contributions during her 35 years of membership in AIS. As one of the originators of the Species Iris Study Group which evolved into The Species Iris Group of North America, we have appreciated her competent efforts in our behalf. Congratulations, Jean!

**NOTICE YOUR ADDRESS LABEL:** If it is marked in red, your dues are overdue (or they were at the time of printing the labels). The numbers indicate the expiration date of your membership: 8401 meaning January, 1981; 8307 meaning July, 1983. There have been some mix-ups lately with people who paid through AIS--your editors dues show overdue! Be sure to contact Florence Stout, 150 No. Main St., Lombard, IL 60148 if you have any questions or, of course, if you want to pay your dues. Dues remain at \$3 per year.

**PUBLICATIONS AND BACK ISSUES OF SIGNA:** Back issues are \$1.50 per issue for all those still available. The Species Iris Study Manual is \$5 per copy. Order these from Alan McMurtrie, 22 Calderon Crescent, Willowdale, Ontario, M2R 2E5, Canada.

**OOPS!** We thought we had more pages than this. We could have had, but we counted wrong, I guess. We hope that is the biggest problem, but we aren't sure until we get the repercussions. Maybe it will never again be as large as Bruce has made you accustomed to--you will need to provide help and guidance.

**SEED EXCHANGE:** We think it is not too late to send your seeds to the Seed Exchange Director: Mary Duvall, Route 1, Box 142, Dassell, MN 55125. We know it isn't too late to order--we think the list comes out in November. Besides providing lots of exciting irises for all of us, the Seed Exchange is what keeps our dues reasonable.