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| CONT ${ }^{\text {cNTS }}$ |  | Page \# |
| The Spuria Species IRIS BRENDZAE | SPURIA NEWSLETTER, f:pril 1968 | 27 |
| The Landscaping Value of Iris The Spuria Spceies IRIS MONNIERI | Bill Gunther | 28 |
| The Spuria Spceies IRIS MONNIERI | SPURTA. NLWSLETTER <br> January, 1968 | 30 |
| The Spuria Species IRIS NONMIERI | Dr. Lee Lenz | 31 |
| Species Notes | Lois Hale | 32 |
| A Message to all Irisarians Lverywhere Roy Davidson |  | 33 |
| Another Seed Season | Roy Devicison | 34 |
| Our Vanishing hmerican Species | Roy Davidson | 36 |
| Questions Please | Roy Davidson | 37 |
| Catalog of Species Sources |  | 39 |
| From the Birchouse |  | 40 |
| IRIS TIGRIDI $A_{4}$ |  | 42 |
| British Iris Society Species Group Report on the Evansia Section |  | 43 |
| Membership List |  | 47 |
| Editoral Comments | Bruce Richardson | 50 |

sdited and printed by Bruce Richardson.

## THE SPURIA SPECIES IRIS BRANDZAE

(reprinted, with permission, from the Spuria Newsletter, April 1968)

THE SPLIRIA SPECIES Iris brandzae HAS AN ATTRACTIVE BLOSSOM, USUALLY OF A SLATE-PURPLE COLOR, WITH FINE VEINING. THE FLORAL PETALS ARE NARROW BUT RIGID, WITH VERY GOOD SUBSTANCE. IN SIZE OF THE FLOWER AND IN THE HEIGHT OF THE FOLIAGE AND IN THE HEIGHT OF THE BLOOMSTALK THIS SPECIES is much smaller than the hybridized spurias with which we are familiar. SUPERFICIALLY, IN COLOR AND IN SHAPE AND IN SIZE, Iris brandzae SEEMS MUCH LIKE THE LITTLE BULBOUS Iris reticulata.

Iris brandzae is INDIGENOUS TO EASTERN ROMANIA, IN THE BALKAN AREA OF EUROPE. THIS SPURIA SPECIES WAS DESCRIBED BY A ROMANIAN BOTANIST NAMED IULIU PRODAN (1875-1959), AND WAS NAMED BY HIM AFTER PROFESSOR BRANDZA (1846-1895). BRANDZA ALSO WAS A ROMANIAN BOTANIST; HE WAS THE FOUNDER OF THE ROMANIAN BOTANIC GARDENS LOCATED IN BUCHAREST, THE CAPITAL CITY.


ROMANIAN BOTANISTS ARE PROUD OF THE FACT THAT MORE IRIS SPECIES ARE INDIGENOUS TO ROMANIA THAN ANY OTHER COUNTRY IN EUROPE.

THEY ESPECIALLY TAKE PARTICULAR PRIDE IN THE MANY IRISES IN THE BUCHAREST BOTANIC GARDEN . AND BECAUSE OF THE VERY SPECTAL LINK OF Iris brandzae WITH THAT GARDEN IT IS UNDERSTANDABLE WHY Iris brandzae WAS SELECTED TO DECORATE A POSTAGE STAMP WHICH COMMEMORATES THE 100 th ANNIUERSARY OF THE FOUNDING OF THAT BOTANIC GARDEN.

AN ENLARGED PHOTOGRAPH OF THIS ROMANIAN POSTAGE STAMP IS REPRODUCED ON THIS PAGE.

Iris brandzae IS INCLLUDED IN THE LIST OF SPURIA SPECIES NAMED IN THE SPURIA IRTS SOCTETY "CHECK LIST" , WHICH IS AN OFFICIAL PUBLICATION OF THE SPURIA IRIS SOCIETY.

BUT Iris brandzae IS NOT INCLUDED IN THE LISTING OF IRIS SPECIES WHICH IS PRESENTED BY CHAPTER 9 OF THE BOOK "GARDEN IRISES". THAT BOOK IS AN OFFICIAL PUBLICATION OF THE AMERICAN IRIS SOCIETY ; IT CONTAINS A MORE COIPREHENSIVE LISTING OF IRIS SPECIES THAN ANY OTHER AIS PUBLICATION.

THE FACT THAT Iris brandzae ALSO IS OMITTED FROM CHAPTERS 18,22 , AND 26 OF THAT BOOK, AND FROM APPENDICES A, B, C, \& D OF THAT BOOK, \& FROM THE INDEX OF THAT BOOK, CONCLUSIVELY SHOWS THAT Iris brandzae IS NOT RECOGNIZED BY THE AHERICAN IRIS SOCIETY OFFICIALS WHO EDITED THAT BOOK.

PURE SPECULATION, SUGGESTED AS A POSSIRILITY ONLY, IS THAT THE EDITORS CF THE BOOK "GARDEN IRISES" CONSIDER Iris brandzae TO BE A SYNONYM FOR Iris urumovie. (Iris brandzae HAS $2 n=20$ CHROMOSOMES ACCORDING TO THE REPORT OF TARNAVSCHI; Iris urumovii HAS THE SAME NUMBER OF CHRO:HOSOMES ACCORDTNG TO SIHONET.)

# The Landscaping Value of lrises 

by Bill Gunther

San Diesn-Imperial Comities
fris Societ?

WHEN ANY particular variety of iris is mentioned, any typical iris society member has a "built in" response or reaction. His re-action-almost invariably- is to think about the blossom of that iris. And his paramount consideration is the color of the blossom.

His thought processes have been "conditioned." He exaggerates the importance of the flower and be thus minimizes the importance of the foli. ase and of the landscaping value of the plant as a whole.

The fault for this distortion of perspective rests with the American Iris Society itself. This is because the society has a congenital affliction, seemingly incurable, which can be called "exhibitionitis." The chronic symptom of this affliction is that the societyand its members-evaluate every iris for the exhibition value of its flower rather than for the landicape zalue of the plant.

Fivery year the American Iris Society and its components award thousands of cups, trophies, certificates, and ribbons of assorted colors to various irises. About 99C; of these awards (most of them are ribbons) are awarded at various iris shows, and the vast majority of ribbons go to "specimen stalks." A specimen stalk is a single bloomstalk which bears one or more blossoms. Since these bloomstalks usually are naked of all foliage, it is obvious that all the awards which go to specimen stalks have no correlation with the landscape value of the plant from

which the stalk was plucked.
The very small proportion of American Iris Society awards which are not given at iris shows or exhibitions are awarded on the basis of guidelines which are prescribed by the society in its h.undbook for judges. These guide lines give fine lip service to the garden value of an iris plant-but they prescribe "weighting factors" for each award which without exception $s u b$ ordinate the plant to the flower.

There is an annual award of the American Iris Society for the tall bearded iris which has the best white Hower-but there is not an award to the tall bearded iris which has the most resistance to the ugly leaf-spot disease. There is an annual award for the iris of any class which has the best red flower-but there is not an award to the iris which has foliage which is the most evergreen the year around. There is an AIS "color classification" system by which every iris is classified; every
last factor considered in that classimcation system relates to the Hower. The type of foliage and the qualities of the plant seemingly are irrelevant.

The AIS awards system has stimulated hybridizers to work exclusively toward better Howers. In doing this. the hybridizers have neglected to work toward better garden plants- because there has been no stimulation for them to do so. As a result, a situation now exists in which hundreds of new hybrid irises introduced each year hase better Howers than any wild siecies. But the vegetative portion of the new introductions-on the average - is las attractive than that of the wild rpecien from which the hybrids were derived. The foregoing paragraphs are very purposeful. They lead up to-and they explain-a statement which is almont unbelievable, but which probably is perfectly true. IF ALL THE IRISES IN THE WORLD TODAY WFRE JUDGED ON THE SOLE (RITL.

RION OF YEAR-AROI ND.LAND. SCAPING VALLE, IT IS PROB. ABLE THAT THE TOP THREF AW ARDS WOULD BE TO SPECIES.

The three wild irises which would be very likely to win this very mythical award are Iris douglasiana. Iris ensata. and Iris pacudantu-not necessarily in the sequence listed. Information abrout these three species follows:

Hm dmulasiana (pronounced "douglas-ee-aye nuh") is native to (w.astal areas of California and Oregon. The Pacific Oce.m stabilizes the temperature and the humidity of this const so that lris douglasiona, in its native habitat, very rarely is exposed to hard freezing, to high temperatures, or to extreme dryness. Consequently this eris neter his reason for going dormant, and it probably is the most evergreen of all irises.

This species has glossy foliage of a dark bluegreen color, the growth habit of each individual plant is very compact, the height of the follage re:mains almost constant (about one foot) all year long. The phant is "tough," and almost completely revistant to attacks by insects, bacterial ror, fungus, and or virus.

Like all plants, IIis domin/abiama desires garden conditions similar to the natural conditions which pertain in areas where it grow's wild. When these conditions are provided, it is a beall. tiful plant 365 days of the year. And when springtime comes, the beautiful blossoms are a real extra bonus, rather than merely a justification for tolerating a plant which-for about halt the year-is a wretched looking eyesure in the garden.

Iris ensald (pronounced "en-s.yy" tuh") is a native of Asia. There are no hybridized introductions which include genes from Iors andata because nu hybridizer yet has been successful in attempts to cross $/$ ris ensalta with any other species to make a hybrid.

The foliage of lris chrala is about 18" tall, very dark blue green in color. and so slim that it appears almust grass-like. It has heavy vertical veins and is very tough. This foliage is very effective and is very long lasting when used in arrangements. The blossoms of lize ensata are relatively small; they most commonly are a slateblue color. but the form which is called "alba" is one of the very few beardless irises which has a white blossom without a yellow "signal" on the falls.

Like Iris douslatam, the individual domps of hri chath are dense and compact in habit. But unlike any


Iris douglasiana


Iris ensata
wther iris, the roots of l/m chal." head straight down. and deep down, to reach deep-under moisture. For that reason, its folhage stays healthy and green when the weather gets so dry and hot that every other iris would either die or go dormint.

Iris prethlatorn (pronounced "soo-dakoh-rus") is a native of nearly all of Europe and of parts of North Africa, Asia Minor and Siberia. As indicated by its wide natural habitat, it is a iery adaptable plant. In comparison with other irises, this species is extremely wgorous, ven large, and practically disease frec. it regures moire water than most irises: it often is adertised as a "water-mis" bectuse it will grow sery well in a wamp or poolside location.

The foliage of this iris is a rah green color; the individual leaves have
a tough central vein which series as a stiffener; in the summertime the folinge will reach to, a height of five feet with. out flopping. Ius pacudaiorus apparently is immune to leaf spot and to virus infection.

It is so versatile that when growing in an area of severe winters it goes dormant during the winter; when growing in an area of mild winters but dry summers it goes dormant during the summer; and when given mild and moist conditions the year around it remains evergreen the year around.
The blossoms of Iris piendatarzt do not have grand size or heavy substance or Alaring form-but they do have a delicate and iragile type of beauty which can be matched by no uther iris. (The judges of the 1967 iris show in Sacramento, California, must hate been he-men who were particularly sensitice to delicate and fagile types; they chose Inis piendacorns as the "Queen of the Show.")

The color of the blossom usually in a light yellow self, but a brown signal is prominent in some forms. The rhizome (root) of this iris attains the size and fleshiness of a sweet petatu In favorable conditions a clump of lris piezdacntur, if not restrained, will expand to the point where it will choke out neighboring plants. The best way to restrict the clump to the size desired is to chop off all rhizomes which grow outside the perimeter of this area which is assigned for this iris. The rhizomen which are chopped off can be given to friends for use as starts for their own clumps.

Anyone who has a moist spot in his garden for Iris pseudacorus may obtain a half dozen seeds of this plant by sending a stamped self-addressed envelope to the California Garden magazine. There is no charge.

These seeds should be planted abou: a half inch deep and kept moist until they sprout; the young plants should be kept moist until they mature and bloom; and the mature plants should be kept moist indefinitely:


## the spuria species IRIS MONNIERI



THIS IRIS IS THE SPURIA SPECIES Iris monnieri. THIS SPECIES WAS DESCRIBED IN 1808 BY DE CANDOLE: HE NAMED IT Iris monnieri BECAUSE HE FIRST SAll IT IN THE GARDEN OF M. LEMONNIER IN VERSAILLES, FRANCE.

THE PHOTO ON THE RIGHT IS THE SAME PHOTO WHICH APPEARS ON THE FRONT COVER OF THIS ISSUE. THE PHOTO ON THE LEFT IS OF THE SAME BLOSSOM - BUT WITH LIGHTING ADJUSTMENTS WHICH REVERSE THE CONTRAST OF THE BLOSSOM AND ITS BACKGROUND. THE PHOTOGRAPHY IS BY THURMOND, OF DEL MAR, CALIFORNIA - A PROFESSIONAL CAMERA MAN WHO RECENTLY HAS BECOME INTERESTED IN SPURIAS.

Iris monnieri NOW IS RECOGNIZED AS A TRUE SPECIES BY THE SPURIA IRIS SOCIETY (CHECK LIST OF 1963), AND BY THE AMERICAN IRIS SOCIETY ("GARDEN IRISES", BY L. F. RANDOLPH ). A QUOTATION FROM THE LATTER REFERENCE FOLLOWS:
"Iris monnieri IS DISTINGUISHED FROM Iris ochroleuca BY BEING WHOLLY OF A LEMON-YELLOW COLOR. AND FROM Iris crocea (Iris aurea) BY THE DIFFERENCE IN COLOR \& BY THE FACT THAT THE BLADE OF THE FALLS IS ORBICULAR INSTEAD OF OBLONG AND HAS NO FRILLED EDGES."

DESPITE THE FACT THAT Iris monnieri IS RECOGNIZED AS A SPECIES, IT DOES NOT SEEM TO MEET SOME OF THE ESSENTIAL PREREQUISITES OF A SPECIES. SPECIFICALLY: 1. IT USUALLY DOES NOT COME TRUE FROM SEED. I MOST OF ITS OFFSPRING LOOK LIKE Iris ochroleuca.)
2. IT DOES NOT SEEM TO GROW INDIGENOUS ANYPLACE; IT HAS NO TYPE LOCATION.

THIS SITUATION BRINGS TO ATTENTION A QUOTATION TAKEN FROM THE FORWARD OF THE SPURIA IRIS SOCIETY CHECKLIST: " NO TAXONOMIC WORK ON THE SPURIA SPECIES HAS RECENTLY BEEN DONE. IT IS BADLY NEEDED." lour underlining) WE AGREE. IT IS VERY LIKELY THAT ANY CONTEMPORARY TAXONOMIC STLUDY OF SPURIAS WOULD CONCLLUDE THAT THE BEALTIFUL Iris monnieri IS A HYBRID RATHER THAN A SPECIES.

THE INDIUIDUAL BLOSSOM WHICH IS PHOTOGRAPHED ABOVE WAS GROWN IN AUSTRALIA BY DR GORDON LOVERIDGE. HE SENT IT IN BLD STAGE VIA PAN AMERICAN AIRWAYS TO THE USA FOR THE FALL IRIS SHOW WHICH WAS HELD IN SAN DIEGO ON NOVEMBER 19, 1967. THIS BLOSSOM WON A FIRST PLACE BLUE RIBBON IN THE SPECIES CATEGORY OF THAT SHOW. THIS PHOTO WAS TAKEN ON THE DAY BEFORE THE SHOW, WHEN THE BLOSSOM WAS NOT YET FULLY OPEN. A PHOTOGRAPH ILLUSTRATING FULLY OPENED BLOSSOMS OF Iris monnieri - AND AN OFFERING OF SEEDS OF THIS FAMOUS IRIS - WAS INCLUDED ON PAGE 5: OF THE SPURIA IRIS SOCTETY NEWSLETTER FOR APRIL 1967.

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THE SPURIA LRLS MONNIERI by Dr. Lee Lenz
    ( extracted, with permission, from Aliso , Vol 5, No. 3)
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An interesting, but poorly understood yellow flowered , 40-chromosome taxon is Iris monnieri, aescribed in 1808 by de Candolle. The original plant was discovered growing in the garden of M. Lemonnier at Versailles, where it was called " Iris de Rhodes ", the name referring, presumably, to its place of origin. Dykes was of the opinion that it was probably not a good species as evidenced by the fact that the majority of seedlings raised from self-fertilized flowers resemble I. ochroleuca. According to him, Ihis monnieri is distinguished from both I. achroleuca and I. crocea by color differences, and in the case of Iris crocea also by shape of the sepals, which are orbicular in Iris monnieri and lanceolate with crimped edges in Iris crocea.

First generation hybrids between Iris ochroleuca and Iris crocea have falls somewhat tapered like those of Iris crocea and quite unlike those of Iris monnieri as shown in Pierre Redoute's painting which accompanied the original description.

Perhaps the most significant floral feature of the three is the shape and


Imis afonsitht
When de Candolle dereribed this species in 1808 he did not designate a type specimen but the description was aceompanied by a painting by the world renowned artist Pierre-Joseph Redonté. the most colebrated flower painter in the whole histury of potanical art. It is this painting which is here reproduced in hack and white. (Robort C. Frampton Photo, Claremont.) size of the style crests which are triangular and over a half inch long in Iris ochroleuca, and are small and deltoid in Iris monnieri (Dykes, 1913). For Iris crocea, Dykes merely says that they are deltoid. The original illustration of Iris monnieri shows the crests to be short and very recurved, quite distinct from those observed by us in Iris crocea or any form of Iris ochroleuca which we have grown.

In 1948 we received seed collected in the vicinity of Ankara , Turkey , by Haydar Bagda. Plants grown from this seed ( our "Turkey Yellow") produce deep golden yellow flowers with sepals varying in shape from lanceolate to rounded. The most striking feature of the flowers is the very short and strongly recurved style crests, which are distinct from Iris ochroleuca or Iris crocea but similar to, though more extreme, than those shown in the illustration of Iris monnieri.

There are , therefore, in Asia Minor deep golden-yellow flowered spurias which in the single collection grown by us , show very short and strongly recurved style crests unlike those of the more common Iris ochroleuca. A plausible explanation for the origin of Iris monnieri would be that it is a hybrid, possibly a natural hybrid, between the white-flowered I. ochroleuca and one of the deep yellow-flowered irises found in Turkey.

Such an explanation would fit all the facts now known about Iris monnieri.
(reprinted, with permission, Erom the Spuria Newsletter, July, 1968)

## SPECIES NOTES <br> by LOIS HALE

Mrs Lois Hale
6 Fourth Avenue Blacktown, New South Wales 2148 Australia

The spuria species Iris maritima was given to me only three years ago as a very small start of a plant. It liked my garden and responded by increasing. And this seasun I counted 23 bloomstalke on it , each bloomstalk with at least 4 blossoms.


I took a colored photo of the clump in bloom. In the colorslide the blue blossoms show up beautifully against the green foliage; there are at least 13 blossoms which show up very clear in the slide. I knew you could not use colored slides in the Newsletter so I had a black-\&-white photoprint made from the colored slide. In the black-\&-white print the blue and the green colors are not distinguishable so the blooms blend into the foliage and become difficult to see. But I decided to send it just the same, as a gift. To provide a comparison with the higher U.S. prices, the cost of getting the black-and-white negative made from the color slide - here in Australia - costs only $32 c$ US money. Photo prints cost only $9 ¢$ U.S , money.

This photo is good verification that Iris maritima grows well in Australia. But it is not native here; it comes from France. There is no species in the genus Iris which is native to Australia or to any other place in the Southern Hemisphere. Irises simply did not exist anyplace south of the equator until men brought them here and planted them here.

Iris graminea did not bloom during the regular spuria season, but now, December the 10 th , it is blooming. This species is noted for its reblooming tendencies but this year it is doing something which I never have seen before ; it is now blooming in rotation. The first bloomstalk came up on the western side of one plant, followed each successive day or so by a new stalk, next to the last one, proceeding around the plant. It never has done that before. This species also shows almost unpredictable variations in its vegetative cycle, even between the different parts of the same plant. On one of my big clumps, the foliage on half the clump died down completely, then new foliage in that sector came up and now is several inches high --- while the foliage on the remainder of the same clump still hasn't died down. Another nearby plant of the same species still has the old foliage, but it also has new foliage springing up between the old fans. Not far distant are two other plants of Iris graminea which were completely dormant for weeks on end, with no green showing, - but now they too have new sprouts up.

Iris spuria lilacina is another "species" which is not stable. I have both Iris lilacina and the spuria hybrid PREMIER in bloom now - but my lilacina is less a lilac color than is PREMIER . Lilacina is not standardized ; it varies greatly from garden to garden. In the USA, the Melrose Gardens distributes a "Lilacira" commercially -- but their catalogue description of it merits the first prize for undisguised hedging. It says 'This may be 'spuria lilacina', we don't know, but it is pretty..." !!!

## A MESSAGE TO ALL IRISARIANS EVERYWHERE

Roy Davicson

Recognition of the "minor species" of irises, protecting them in the wild, and bringing them into cultivation, all indicate a sustaining interest in these wildings. Through the cooperation that our species group affords we can exchange knowledge, seeds and plants and thereby come to know our subjects better.

We desperately need workers though, to help to keep the ball rolling, to contribute of their experience to our publications and to assist with the mild labors attending the success of our organization. If our newsletter SIGNA, which has been hailed as "worthwhile" by many kind persons, is to continue and remain of permanent value in the "Literature of the Iris", it must periodically issue a detailed cross-index as to subject, title and author. We need a volunteer to commence this index, which ideally should appear annually.

We need "scanners" in the species robins, their duties to excerpt the pearls of wisdom for our members to read in SIGNA. We need secretarial assistants to lighten the workloads of certain volunteers who devote an amount of their "spare" time to our cause that they seldom can enjoy the subject of their labors - the plants in their gardens.

HELP: If you can assist in any of these capacities or if you can think of other ways to contribute, by all means let it be known. One of the things we need the worst is the matierial to publish; write to the Editor of your own experiences with these, "our irises"; share your pleasures and experiences.

IF YOU HAVE ENJOYED THE MATERIAL PRESENTED IN SIGNA AND KNOW
OF A GARDENER WHO WOULD BE INTERESTED, LOAN THEM YOUR COPIES
TO READ hND URGE THEM TO JOIN THE SPECIES IRIS STUDY GROUP;
DUES $\$ 2.00$ PER YEAR, OR \& THREE YEAR RLTE FOR $\$ 5.00$, WHICH
WILL BRING THE STUDY MANUIL OF SPECIES IRISES AND VICTOR A.
COHEN ${ }^{2}$ S $\%$ GUIDE TO THE PACIFIC COAST IRISES: $4 S$ WELL.
BUT BE SURE TO PUT YOUR NAWE ON YOUR COPIES OF SIGNA AND
WRITE YOURSELF A NOTE AS TO WHOM YOU LOANED THEM:

## ANOTHER SEED SEASON

The very splendid response both from donors and customers made the first year of the seed exchange operation successful to an unpredicted degree. From more than 180 seedlots received, a total of 871 packets were sent to more than 80 persons, some of them overseas. Now that the glorious floral display of spring and early summer is but a pleasant memory, it is time to gather the harvest, to again share the bounty with others.

The right time to harvest seed is just as the capsules dry sufficiently to allow the first cracking, but not enough so the seed is scattered far and wide. Capsules may be harvested in the advanced-green stage (which is by way of saying before they are fully mature, but sufficiently so that the seed will continue to ripen plumply, not shriveling materially until after they are out of the capsules) and stored in paper bags in an airy, dry place, where they will continue to ripen. Some species of iris do not dehisce (the term for the splitting of the seed vessel) completely, and typically open only at the tops, while others suddenly and very completely do so. In order to be certain of catching this explosion, it is advisable to harvest in the advancedgreen state.

As the capsules open and the seeds spill out, it is time to shuck them and remove as much of the chaffy material as will blow away; to wait may mean loss of valuable seed, for often an interloper in the form of a tiny larva is feeding ravenously on the fruits of your labors: Package in tight envelopes aNd label as to donor and idenity.

## CORRECT LABELING IS IMPORTANT

Huch confusion, both to seed exchange operator and to those who will grow the seealings, will be eliminated at the outset if a few simple rules as to labeling will be observed. The matter of correct identification of seedlots is not really difficult, especially if one (1). DESCRIBE WHAT THE SEEDS WILL GROW INTO, NOT WHAT TEEY CAME FROFi. This will appear, on first though, to be a pretty obvious caution, but on careful reflection it will obviously be seen that one or more of several possibilities coulc conveivably influence the crop, circumstances quite evident to him who harvests the seed, but quite invisible to him who plants it; thus a few clues or tips on the seedlot will help the gardener figure out later whether what he got from a given lot was what he expected it to be。
(2). Where it is know, the species name should be indicated; if unknown say so; DO NOT GUESS;
(3). Indicate if the seed was open-pollinated - what we call "bee-set" as $O P$, or if it resulted from hand-pollination then $H P$. (4). Indicate if the seed was gathered in the garden (G), or if it was collected in the wild (COL); if the latter, give approximate location, county and state. This can help the identification committee in many cases.
(5). If the identy of a seedlot is unknown or uncertain, or if it is of hybrid origin; SEND IT ANYWAY, BUT TELL US UHAT YOU KNOW ABOUT IT. Here are some examples: If species uncertain, "Iris Virginica var shrevei(?)" which tells us what it is thought to be, but indicates the donor doesn't want to be hanged for a mistake. Species unknownis
indicated exactly that way，＂Iris sp．unknown＂，but colour，height etc．， can aid the ID Committee．In cases of hybridity，the pod－parent is given first，followed by an＂X＂to indicate a cross pollination was made，and then the pollen parent，i。e．，＂Iris fulva X Iris brevicaulis＂．If the hybrid was a registered named clone，it may appear by its registered name of course，as＂Dorothea K．Williamson＂（but indicate how the fert－ ilization came about，or if not known，then of course，＂Op：：（or this might appear＂Dorothea K．Willianson X unknown＂）。 In suspect but un－ proven＂hybridity＂，a line is substituted for the X ，since the pod－ parent is in question；example，seed from a hybrid colony：＂fulva－brevi－ caulis＂。

## FAND－POLLINATED SUED

Seed that is gathered as resulting from hand pollinations is in much demand，since a great deal of selectivity has gone into its pro－ duction，and superior progeny should result．Where parentages of hybrids are know，give them，remembering to advance the generation，which means， if the seed is from a hybrid plant of fulva $X$ brevicaulis，this design－ ation should read＂I。fulva $X I_{0}$ brevicaulis $F_{2}$ ；if harvested from the $\mathrm{F}_{2}$ generation，it should read $\mathrm{F}_{3}$ s and so forth．If a know hybrid is utilized in further breeding，it is indicated within brackets；example， （＇I，fulva X I。 brevicaulis）X Io fulva，to indicate a back－cross，or （I．fulva X I。brevicaulis）$X$ sib．to indicate a hand－polination to an individual of the same parentage，or（I。 fulva X I。brevicaulis）X self to indicate hand pollination to its own pollen．（This is quite diff－ erent from（I，fuiva X $I_{0}$ brevicaulis）$X$ ？or（ $I_{0}$ fulva $X I_{0}$ brevic－ aulis）$O P$ ，both of which give no clue to the pollen parent of the seed in the packet，and therefore omit one－half the information important to anyone interested in growing plants for breeding purposes．We are not essentially interested in hybridity；however the study of such can be of great value in understanding the species problem。

## ISOLATION FOR＂PURE＂SEEDS

Those who will posibly be working technically with the species problem and who will want uncontaminated species seed or those who will want uncontaminated hybrid seed will be interested in controls．For absolute isolation one may use a nylon mesh bag with drawstring，the sort used by rose breeders，to isolate pollinated blossoms．A small screen box of a fine enough mesh to keep out bees and larger insects can be devised to fit over an entire plant，or a sleeve of plastic screen with the end closed off has been employed ．．．．．．．．all these are effective for absolute control．However for the most part，this is not only a lot of trouble to go to，it may not be absolutely essential for our purposes，to say nothing of losses that can result from bacterial troubles within these isolation－mechanisms，in the increased humidity they afford．．Stripping and emasculation of the intended pod－bearer， while still in the plump－bud stage，and immediate fertilization with the selected pollen can give excellent and $99.44 \%$ pure results，if not greater．The stripped flower will consist of the ovary and style－arms， and from which the style－crests，in addition to the standards and falls have been removed．These parts attract bees and afford a place to light；emasculation removes the pollen brearing anthers．A particularly fine individual of a species may be self－pollinated and resulting seed－ lings may be expected to be equally as good，or two especially fine clones of the same species may be intercrossed，（this would be labeled
"tenax X tenax") with the expectation of equally satisfactory progenies, and possible greater variation among the individuals therein, or of course, the strip ed blossom may be fertilized with pollen of another species, the hope being an even greater variability (though this might not show up in its fullest expression until a further, inbred generation), and provided of course, that the two involved are genetically compatible, or "crossable".

## SEND SEED IN SEPTEMBER

The sooner seed can be received at the seed exchange, the sooner the seedlist can be readied, printed and mailed. If you have seed that ripens late or for some reason cannot be sent early, inform the seed exchange to expect it so that it can be included on the list. Some excellent seed could not be included in the listing last year because it arrived too late. Your good cooperation last season made for a successful seed distribution and some dollars toward supporting our publications, SIGNA and the SPECIES IRIS STUDY IIANUAL.

YOUR SEED EXCHANGE DIRECTOR IS:- Mirs. John R. Hardy 296 Hunsaker Lane Eugene, Oregon 97402, U.S.A.

## OUR VANISHING ANERTCAN SPECIES

Roy Davidson

While returning northward from California Iris Meetings some years ago, I detoured coastward from the main highways to traverse the seacoast route and some of the by-ways in north-central California, specifically to study Iris longipetala as it flowered in the broad grassy meadowlands of cattle pasturages of Marin and Sonoma Counties, and it was with some little reassurance I noted from several very extensive colonies and numerous small ones that this species was here safe from the urban spravil that was eliminating it further southward. And so while organizing a field trip for a group studying native irises a year or so later, it was imperative, of course, that we visit the area to note the similarities of this species to the well-known relative, I. missouriensis of the inland northwest.

Early on the glorious morming of April 30th, we set forth from Petaluma westward on the Point Reyes Road, where, at the intersection of the road coming northward from Nicasio, the largest stand of this iris was to be visited, but as we came to the place - WHAT KAS HAPPENED? There was a vast lake filling the valley from brim to brim: All but a scattering of the irises lay drowned at the bottom of a huge water storage reservoir. At the second station, once a large colony on either side of the highway at the intersection of the Two Rock-Fallon Road, only half remained, the opposite side having been treated with a weed spray, and a mere clump or two of distorted iris foliage remained in the fence-row of this pasture. These had been two of the larger colonies; the smaller ones had fared better, and though not in such favorable places, perhaps will continue the species, but only if man is willing。

Iris Longipetala is a most handsome plant, once found in seven counties centering about the mild climate of San Francisco Bay, from Monterey, where it was first collected by Herbert in the era of the Spanish Colonization, northward to the few stations in Sonoma county, and eastward to the east-bay counties, Solane, Contra Costa and Alameda. It is rapidly, VERY rapidly, becoming a depleted species to the extent that extinction threatens. The once blue-with-iris hilsides and valleys are now covered by the ugly cities of the burgeoning bay area. Even on Twin Peaks in San Francisco, where a small colony once held out over the city, a monstrous multi-apartment complex now sprawls.

## THE IRIS OF THE LAKES

Iris lacustris, whose name means "Iiris of the Lakes" is likewise threatened by man ${ }^{\circ}$ s everlasting destruction of nature. Once common on the shores of Lake Ontario, Huron, Erie and Michigan, it is now a difficult plant to locate in the wild. The States of Michigan, Visconsin, Ohio and the Province of Ontario could once boast this as a prized wilding; now the spreading summer developments have laid most of it to the devastation of the bulldozer.

What can be done to preserve at least one good reservation for each of these species for all time? Only official action by a legislative body can assure their continuance. It is not only for these two plants alone, but for all their associates in their habitats, both plant and animal life, that this should come about. IT IS LATER THAN WE THINK!

## QUESTIONS PLEASE

"HE THAT NOTHING QUESTIONETH, NOTHING LEARIVETH." Th. Fuller - 1608
Q. In the Aprican section of the U,C. Botanical garden at Berkeley we saw many plants belonging (according to their placards) to Iridaceae, but which seemed more "lily-like" in appearance. Question is, is "Iridaceae" another word for "Genus Iris" or would Genus Iris belong to the larger group, Iridaceae?
A. Your Editorial committee is very grateful th have this question arise at this time, for it seems to answer for us the question as to how far and to what detail we should proceed in preparing the introductory portions of the forecoming Iris Species Study Manual. We now feel that besides discussing the Genus Iris, we need to mention its nearest relatives, which collectively constitute, as you correctly surmised, the Iris family, or Iridaceae. We shall also devote some explanation to the phylogeny (which merely means natural arrangement according to relationships) of such families as Liliaceae, Amaryllidaceae and Junaceae. A goodly number of the genera (Pural of genus) of Iridaceae do indeed have a very lily-like general aspect, the great separating factor between the two families being the position of the ovary in relation to the other floral parts, which in Iridaceae is said to be "inferior", while in Liliaceae it is "superior"; an inferior ovary is situated below the floral envelope, while a superior ovary is situated within it.

This point is observed most readily while an iris and a lily are still in bud; the ovary of the iris is plainly visible while that of the lily is enclosed within the bud. It is that simple:
Q. Could you give us some hints on saving seed for the exchange; I am falrly sure Noti irises will not be contaminated because they flower so far ahead of anything else here, and the missouriensis also because I do not grow anything it should cross with, but do you recommend crossing two tenax, for instance, and merely saving the tagged crosses, or do we have to cage plants to prevent contamination? Please elucidate.
A. Wow, here is a question with great potential as a lead for an article on the technicalities of isolation of seed plants and also of labeling. See the article on page 35 of this issue for elucidation. Thanks for the lead.
Q. I am not even an amateur at botany and find the information I have to "help" me identify my wild irises of this part of the west coast to be too technical to be of help. Is there anything written in simplest terms that you can recommend?
A. To my knowledge there is nothing in "simplest terms" that covers all the west coast irises or even your portion of them. The ten dollar book, "The Higher Plants of Oregon", might help, and for the Bay area, there is a little publication by Sharsmith, a paperback available at bookstores. But, by and large, your best bet for the Pacific Coast Irises is the Cohen Monograph, just released by the B,I.S., and being sent to the Species Study Group members as part of their subscription. (To others it is available for $\$ 1.00$, sent to me, Roy Davidson.) 1 or other parts of the country, there are mainly technical works, and the forecoming Study Manual seems to be your best bet. If you are a one year member of the Study Group, don't fail to renew your subscription, as the detailed portions of the Study Manual will not be issued within the first year's subscription.
Q. A current discussion in my robin puzzles me; it is relative to wild irises and hybrids of them found in nature, and frequently the word "introgression" pops up. Please explain what is meant by introgression and introgressive hybrids.
A. This interesting and complex question could lead to a full-length article; books have been written on the subject, and so in a few words, here is the gist of it: "Hybrids" are usually quite easily recognized, but only if one throughly understands the small but important differences that are taken as characterizing given species. Irises are firstly divided according to rootstalk; bulbs, rhizomes and others; then by presebce or absence of a beard on the outer segments, etc., and these are the fairly obvious differences; it is when we get dow to the shape and size of the cauline-leaves, and of the spathe-valves, and the relative length of the pedicels and perianth tube, and the details as to shape, size and colour of the seed, that we need to pay strict attention. Most often, a hybrid population in the wild is accompanied by the parent stocks and it is fascinating to observe the myriad ways individuals take in variations from their progenitors. In advanced generations, through recombinations and backcrosses, these distinct variations "blur out" until, in what is called a case of introgression, the population essentially resembles one or the other
of the parent stocks，but does not conform precisely to any prescribed characterization．Thus we speak of a given species＂showing introgress－ ion into＂another．This is a particularly common occurrence in the southesst，but，at the time of the early botanical expeditions there， it was not a recognised situation and thus we have a great number of ＂species＂names，which collectively illustrate introgression，each of them an＂introgressive hybrid＂perhaps．

## CATALOG OF SPECIES SOURCES

It has been suggested that in addition to the formation of a central seed exchenge，a similar nenner of distribution be also estab－ lished．This would be of some value，assuredly，but we are taking the attitude of not desiring to enter into competion with our good nursery－ men，who，probably through love of the iris，rather than love of money， continue to offer those kinds in lesser demand，under species names or， in some instances，under clonal names．The British Iris Society once undertook such a plant project；but soon abandoned it as the physical． task of growing on plants，their labeling，parceling and despatch proved impractical．We shall therefore continue to keep the membership inf－ ormed as to some sources，not only of plants，but also of seeds． （Individual members are quite free，of course，to arrange plant exchan－ ges or sales with other members in any manner they find agreeable。） The following is a source list of some commercial sources and a brief list of their offerings．

ACKERMAN NURSERIES，Bridgman，Michigan 49106 －＂Shilka＂the Siberian dichotoma．
NORTHWEST HYBRIDIZERS， 16516 － 25 th N．E．，Seattle，Wash。 98155 －Dwarf and median introductions．Cal－Sib hybrid introductions；some western sp． WALTER WELCH，Middlebury，Ind。－Pogan species and hybrids，esp．dwarfs． LESLIE＇S WILDFLOWER NURSERY， 30 Summer，Methuen，Mass． 01844 －Easterm Sp． UNIVERSITY HILLS NURSERY， 470 Delgado Dr。，Baton Rouge，La。 70808 － Hexagonae，both species and hybrid，pseudacorus；clones of virginica． WALTER MARX GARDENS，Boring，Oregon 97009 －Selection in their catalogue． MRS．L．M．McDONALD， 8416 Going，Portland，Oregon 97220 －Seed of west sp． PEARCE SEED CO．，Moorestown，N．J． 08057 －Seeds－Always a surprise here。 HhRRY E．SAIER，Diamondale，Michigan 48821 －＂Forty Kinds＂。 MELHOSE GARDENS， 309 Best Ri。S．，Stockton，Calif。 95205 －Many kinds． LAURIE＇S GARDENS， 17225 McKenzie Hyo，Springfield，Ore。 97477 －Seeds and plants；western species and others． ENGLERTH GARDENS， 4652 Division S．Grand Rapics，Mich． 49508 － 30 Siberian： GEO．W．PhRK SEED CO．INC．，Greenwood，S．C． 29646 －Seeds only． GARDENS OF THE BLUE RIDGE，Ashford，McDowell Co．，N．C．28603－SE natives． EARL ROBERTS， 5809 Rahke Rd．，Indianapolis，Ind． 46217 －Large collection． P．de Jf．GER \＆SONS INC．，South Hamilton， 190 Mass．Holland bulb irises． BEE WiARBURTON，Rt。2，Box 541，Westboro，Mass． 01581 －Kany dwarf species． THE WILD GARDEN， 8243 NE 119 th，Kirkland，vash。 98033 －Over 50 selections． from western，eastern，southern U．S．A．，evansias and pogan species． SISKIVOU R\＆RE PLANT NURSERY， 522 Franquette St．，Medford，Ore． 97501 Western species．
LAMB NURSERIES，E 101 Sharp ive．，Spokanc，Wash． 99202 －Cristata， tectorum，＂Paltec＂，etc．

40 .

## FROM THi BIRDHOUSE

Robins in the Species and Natives Division continue winging their routes, bringing conversations from far-away places, singing of things to do and things already done, something in blossom, great expectations for another tomorrow. There are eight robins ilying, under the Directorship of five capable persons, and a total of over sixty participants enrolled, some in more than one robin. One of these robins is now in its 15 th year: It has completed more than 30 flights and still has most of its original members out on the west coast, some of whom get together annually for an Iris Hunt such as the one described below.

## WILD IRISES OF THE UILLIAGITTE VALLEY OF OREGON

Take a clear warm spring day, a rocky mountain road climbing to an open, logged-off ridge, round a bend and see a hillside literally covered with thousands of wild irises in full bloom, and you'll never, never be the same aşin. It's breath-taking and awe-inspiring and as of that minute you ve contracted a disease called "Iris-Eyes". From then on, no matter whether you are traveling a mountain road, a counrty road, a farm road or freeway, you ${ }^{\circ} 11$ be forever searching for small straight spears of dark green and multitudes of those small bright flowers.

Usually an iris exploring trip is started by someone with the disease saying "I wonder what"s on that road there," so all so-afflicted must drop everything and find out. It's a most frustrating and at the same time rewarding hobby; frustrating in that at the time you are just beginning to find very interesting things, there blocking the road is a locked gate: And revarding in that perodically something very unexpected turns up, and the opportunity to stand on the top of a high ridge with iris sweeping out in all directions below is something that ${ }^{\circ}$ s always a thrill, no matter how much you hunt iris or how many times you visit a place。

Iris tenax, one of the three sorts of the Willamette Valley, is spread from southwest Washington and southward far past Eugene over into the drainage of the Umpqua, to the east as far as Tombstone Pass in the mid-altitudes of the west slope of the Cascades and westward to places along the Pacific shores. Mixed and scattered through the southern half of this area is I。 chrysophylla at higher elevations, and occasionally in the northern half are "islands" of tenax var. gormanii. Though this is but a fraction of the total of the species of Californicae, there are no iris colours that cannot be found in these or their hybrids.

Vith tenax ranging from pure white through all shades of blue, lilac, lavender, rose and violet and into the deep purple shades, chrysophylla from pale creamy white to butter yellow, and gormanii in white, cream and yellow, there seems no end to the variations of colours, markings and eye-patterns. Areas of hybridization between tenax and gormanii and tenax and chrysophylla are numerous and more are being found all the time. The gormanii are from the Vernonia area west of Portland, Monument Peak near Nill City and a just-discovered occurrence in the Cobury Hills on the north edge of Eugene. Individuals of these areas vary from purest whites and yellows (gormanii is the yellow colourform of tenax) through all the pastel tints in peach, apricot and rose, some having contrasting eye-patterns. Tenax-chrysophyLla hybrids tend
to be in the creams, rose and lavender range, many having the darker colour veined onto a cream ground. Also many of the "Valley Banner type" are found: white standarcis, violet or rose styles, and white falls veined the same colour. So far this patterm has onily been seen in the hybrids and not in any of the species. There are no peach or apricot tints to be found in these hybrids, though a wide range of other pastels, as from the foothills on the east side of the valley at winberry Creek, Fall Creek, Lookout Point Resevoir and the south McKenzie, and on the west side of the valley near Swisshome and on the Deadwood Creek Road, to the south in the London Mountain and Cougar Bend areas, and at Camas Valley still further south.

Chrysophylla is of course found in all the above mentioned places and also on the Coburg Hills, eastrard on up the McKenzie River and as far north as Detroit Dam on the North Santian drainage: it may occur further, but that's as far as weive sighted it and as far as it has been recorded. A plant of the foothills, it is never to be found on the valley floor, whereas tenex, most profuse in the valley, goes up to meet it. Tenax is of course, the most abundant, is widespread throughout the valley, predominantly lavender, though there are colonies where only purple occurs, as in the Monmouth area, near Shedd on old Highway 99, near Cheshire, and Dorena Dam south of Cottage Grove and over into the southerly Umpqua; in general the further south one looks for it, the deeper the colour, and the further north, the more pastel.

West of Eugene in the Noti-Veneta area is found the small and early-flowering iris called "notiensis". This is considered to be a stabilized hybrid of tenax and chrysophylla and resembles an orchid coloured form of the latter, covering about 25 square miles of lowland.
it may seem that all the iris have been found and all the areas explored, but don ${ }^{\circ} t$ you believe it: I have the feeling that many more are yet to be discovered. Since a completely new area for gormanii has just been discovered right here in my own backyard, I feel we have a lot more looking to do. "What's on those high ridges and those mountain tops?:

Ruth Harcy.
I have I。 chrysophylla, both the fam-coloured and the cream-coloured right on my hillside (near Grants Pass, Oregon) and some near the house. They vary in width of falls and in size and in the amount of veining on them untill my neighbour tries to tell me they are different kinds, but I think the variation is all within the species.

## F.orence Champion

Although no "type" was named by Howell when describing this as a new species in 1902, it is know the material he wrote his description from was collected near Grants Pass and could very well then have been from near this same hillside: In that portion of the range of chrysophylla the ground colour is much more yellow than in the northernmore, and there is a much intensified golden flush on the falls with far redder vein colouration; in fact, whereas those of the Cascade and Coast Range foothills are spoken of as "cream or white", from hereabouts they vould be best called "yellow or orange", so definite is the colour pattern. Southeastward of Grants Pass, in the Applegate River drainage, the ground colour is a pastel apple-green, the veins rosy, the effect
being quite different from any other I．chrysophylla，though all of it is delightfully＂midget＂。

A most humorous letter arrived in the office one day in late spring；it was an invitation from the KONFUSED IRIS SOCIETY，and though they may have been too confused to spell，as they admitted，their enthusiasm for searching out the native irises of the northwestern portions of Oregon in drenching rain was admirable．We hope to present their Konfused Findings soon．

## IRIS TIGRIDIA－SONETHING NEN TO GARDENS？

The bulletin of the American Rock Garden Society（26：2 p． 42 April 1968）carries an account of＂PLANT HUNTING IN MONGHOLIA＂，in which the author，Ing．Vladimir Vasak，recalls＂On the dry and stoney slopes and screes I collected plants and seeds of Iris tigridia Bunge，in Mongholian simply called＂Bay－Cachildag；＂（small iris）。 It has very narrow leaves up to 10 cm 。 long，thick horizontal rootstalks，adpressed in crevices，and only one large purplish－violet flower．This iris inhabits the Mongholian mountains and the nearest mountains to the USSR． It is a plant of early spring，flowering in the wild in April and May． I was so happy to find one plant with a retarded flower，though the seed harvest was very poor．But I collected living plants and will have to wait，hoping they will be content with our conditions．＂Thus a＂new＂Iris species may be－precariously－in cultivation．Such a possibility quickens the pulse，even though the writer is a resident of Czechoslovakia？We turn immediately to＂the literature＂to learn what is known about this small bearded species from Asia，hopeful that should we ever be fortunate enough to acquire it，we might not only recognize it for the real thing，but make it a happy and permanent addition to our gardens．

A member of the Pumilae Series of Pogoniris（Dwarf Bearded）， Dykes says of it（Handbook of Garden Irises，p．19？）：．．．．．：＂occurs from the Altai Range to Manchuria．．．．．a curious little species ．．．．．dense close masses with the base of the leaves wrapped in short membranous sheaths and the fibrous remains of old leaves．The stem is only a few inches in length and bears a single head of one or two flowers．The tube is about an inch long in the fully developed flower，of which the colour is either a blue－purple or yellow．The leaves are narrow and less than six inches in length．They taper gradually to a fine point and this readily distinguishes I。 tigridia from I potanini a floriferous little species，suited to the rock garden．＂

## BRITISH IRIS SOCIETY SPECIES GROUP

Bruce Richardson

Continuing the policy as outlined in the April issue of SIGNA on page 7 of bringing to our members the articles of wide general interest as published by the Species Group of the B．I．S．，the following pages continue the discussion of the EVANSIA SECTION with additional notes． received after the meeting．The first of these are somewhat unconnected， although of intense interest to those of us attempting to grow these species．We are most pleased to be able to publish the account of Evansia species by our own good member，Mrs。 udith Cleaves，as written for the British Group．

REPORT ON TIE DISCUSSION OF THE IRISES OF THE EVANSIA SECTION （continued）

Additions to notes on Group 1 received since the first report was issued．
Mr．Christie－Miller writes of $I$ 。 japonica＂The type is not hardy； I saw it growing in the hills in Japan，and the plants sent to me by a kind friend in Miyanoshita never survived．One can see splendid plants in Italy and the Riviera．There it is known as＂Il Pellegrino＂because it wanders from garden to gsrden．Mr．Redbrook brought a plant from Capri and bits of it grew with me in the ground of an unheated conser－ vatory and flowers well．Is is the early formation of bud which is the main cause of failure in our climate．
${ }^{\circ}$ Ledger ${ }^{\circ}$ s variety was given me by Sir Arthur Hort：according to him it came from the British Embassy garden in Iokyo，and though it has not the quality of the type，it gives generously of its beauty of form＂，

Still from Mr．Christie－Miller－＂I．wattii．This was collected near Tengrich on the Burma－Vhina border，by Lawrence Johnson：and then shown（I think by Lord Aberconway）and was awarded an A．M．The question then arose，what vere the plants previously known as $I$ ，wattii to be called？Sir Arthur Hill suggested the name of I，bambusa，a horrible name，and eventually＂confusa＂was substituted．

Ii，confusa and wattii are grown in the temperate house at Kew． I．wattii is a miserable plant there，and I have given them some of mine， derived from a bit given me at Menton by Lawrence Johnson．

I。 confusa flowers resemble I．japonica．I。 wattii flowers are quite distinct．I hope that I shall have a spike to show on May and if the season is not too early．Normally，there are $40 / 50$ buds on every flowering stem。＂

Swyncombe House，Henley－on－Thames．
M，Ruffier－Lanche writes：－＂I．japonica Ledger＂s－very floriferous here（Grenoble），at the foot of a wall facing west，apt to suffer when temperature is under $+10^{\circ} \mathrm{F}$ ；increases tremendously by stolons，but never sets seeds．Never tried the type var．：savi it on the Rivera flowering abundantly in half to full shade．：

## EVANSIA SPECIES IN SANTA CLARA VALLEY，CALIFORNIA

In this valley which has a mild climate（low $32^{\circ} \mathrm{Fo}$ ，a．ltho：we do have snow for a few days on Mt．Hamilton（Lick Observatory）），the average temperature ranges from $68^{\circ} \mathrm{F}$ ．to $75^{\circ} \mathrm{F}$ ．most of the balance of the year－even getting as high as an uncomfortable $102^{\circ} \mathrm{F}$ 。 to $104^{\circ} \mathrm{F}$ 。 sometimes．Living on the west side of this big valley there are heavily wooded mountains studded with oak，pine，reciwood，bay and many other kinds of trees and only 30 miles from the Pacific Ocean，this area is usually a bit cooler of course．

EV．ansias－always a delight，have been more than successful with the exception of $I_{0}$ gracilipes and $I_{\text {。 }}$ cristata。 It seems we are a bit too far south for these two irises．However．I planted some＂very：＂ dormany rhizomes in Decmber and hope the warmer sun will coax their desire to bring forth new foliage and bloom sonn．

The soil is slightly alkaline，thus must be prepared for all acid loving plants．This means lots of leaf mould，some peat moss，plenty of old manure，soil sulphur，and all dus deeply into the soil．After planting in a permanent position location，a mulch $3^{\circ}$ to $4^{\prime \prime}$ deep of pine sawdust is applied．Some evansias planted in a redwood box $-18 " \mathrm{x} 4^{\circ}$ $x$ 12＂deep，is first filled with the prepared acid soil，a layer－ $3^{\prime \prime}$ to 4：7 of garden sand moistened，and after planting the evansias a mulch $3^{3 \prime}$ to $4^{\prime \prime}$ is applied．The plants are kept comfortably damp．This seems to make lusty growth．The location is such that they get the morning sun at this time of year．Later they will have filtered shade from a big walnut tree，the foliage is such a help later in the season．Plenty of moisture during the year up to rainfall season．They are refertilized in January and again in early fall．Snail bait every month is tucked under the leaves．I do have a pest service every month plus any time during the regular monthly service that I require for ants，ear wigs， aphis，gophers，moles，mice and any other spraying or pest control that I may need－all for $\$ 6.00$ a month．This is truly worth every penny．

I．nada grows vigorously and must be curbed from taking over the garden．In 1963 a freeze followed a snowfall，most unusual in tow， which killed all the buds on the long stems of I．nada．Not getting around to cut back the frozen stems，you can imagine my surprise to see new branches with buds starting up from the apparentily dried stems． Bloom they did，lasting well beyond the last of June after pruning off the frozen stems dom to the new branches．Never before had I。 nada branched．

Hybridizing in the evansias has been unsuccessíul except for one time．Putting pollen of $I_{0}$ naria on $I_{\text {．tectorum procuced one pod．These }}$ Were planted last December and have not yet germinated．Selfing I．tec torum alba has always been successful．If seeds of I。 tectorum aIba are planted immediately they will produce bloom within one year，while I．tectorum takes two years to produce blooms．

I．japonica is a tempermental lady．One year，some rill bloom， others refuse，but the next year it is just the reverse．When I moved I prepared special soil and put them in one gallon cans，for I knew it would be some time before the evansias could be put into their perman－ ent location．（It took 3 weeks and a man working steadily to clear this
place). Not worryingabout them, everyone bloomed:
I. Baltec - knowing this is listed as an IMB, I cannot help but include it here because it resembles Tectorum in gronth habits and colouring so much. Gives no trouble and is a gentle flower.

About nine years ago when visiting the cemetary here, I found a dried stem that I know was an evansis. Took it home, tucked it into moist soil, keeping it damp. Next spring I was delighted to have a most exciting large ( $3 \frac{1}{2}$ " across) lovely deep lavender bloom, ruffled and of smooth substance. Everyone admired it, but so far no one has identified it. Gave some away, but when I transplanted it in 1960 on moving, it didn't malee it. Now I cannot find another one. This is a real loss. Moving in June 1960, it was an exceptionally hot month and I lost several iris that are not too well knom on this coast

Telephoning Ben Hager, who has a nursery in Stockton, a very warm belt in the San Joaquin Valley, to ask about his success in hybridizing the evansias and his answer was most surprising. He stated he had had no time to try pollinating them BUT they had seed pods from open pollination: He has his plants crovded in a lath house and had not had the opportunity to get them planted in the garden. Apparently the bees, wind and close proximity did the work. Mr. Hegor heis planted the seed in milled (ground) sphagum moss. After germination he will transplant them into sand and mulch with the pine sawdust.

Elwood Molseed, a teacher in the University of San Francisco, is the only successful hybridizer of evansias I know and never did give out his secret to us. I have tried so many ways and will keep trying.

Oakhurst Gardens, Arcadia, California has one which I hope to get this year. I. uwodi* which is described as a distinct and hardier form of I. japonica. I, Fairyland is a cross of I. . Wrodii" and I. wattii. By the way, do you grow I, wattil (bamboo iris) as high as five feet?
I. milesii, planted from seed took forever to prociuce bloom. Seven years. I was a bit disappointed in the size of the flower, but the colouring was pretty.
I. Fairyland, Darjeeling, I. confuse, I. Wattii and I. Aprodite have not bloomed yet - just got the plants last year. All growing vell.

The others I have growing are I, nada, 2 : flower, white, altho some have pale lavender dots similar to I. japonica. $\frac{I}{2}$. tectorum and I. tectorum alba heve 3 咅" flowers. My collection still is lacking I. formosana, I, pscucorossii and I. speculatrix.

Mirs. Edith Cleaves
676 Downing Ave. San jose, Calif.

* or Uwudu, probably (Ed.)

ED: The above completes the excerpts from Bulletin \#2 of the B.I,S. Species Group of the meeting held on March 22nd, 1966. The material on the following pace is taken from Bulletin \#3 and was presented at a meeting held on April 19th, 1966 at Cleland House, London.

Selected comments on certain rare or unusual species.

46。
Ambertellon：Stem 15－20 cm．tall，unbranched，2－flowered，red－purple with yellow beard．Chromosomes $2 n=24$ ．Said to be collected by Rudolph Hanselmeyer wild in Roumania．No authority for name，which． was not formally published．

Statellae（Todardo）Baker．Stem 22 cm ；2－flowered；flowers ivory or greenish white with tucked－in falls．April．Spathes green－ membranous，clasping，not keeled． $2 \mathrm{n}=40$ or 44 ．Fertile for pods or pollen．

Origin is obscure，alleged to be a seedling from Palermo Botanical Garden，but reported vild in Sicily．Possibly a natural hybrid of I．pseudopumila．A hardy free－flowering garden plant．widely grow， and of easy culture in any sunny well－drained soil．Meets with general admiration and approval．No record of fertile seed from its ow pollen， by growers who would play Pandarus．

SPECIES UNKNOIN TO MEMBERS AT THE MEETING．
Printed for reference in case any of these should present themselves． In U．S．A．，or in the wild？（Collectors and holidaymakers please note）．

Aequiloba，Ledebour
Stem 2－3 cm，long，leafy；flowers lilac or yellow，the six segments have long hafts；leaves slender，sickle－shaped；spathes long and slender， mostly green－herbaceous，perianth－tube 7．5－8 cm．Closely allied to I．pumila．Crimea and Volga region of South Russia．

Barthii
Unpublished name，attached to a dwarf bearded seedling obtained by Hanselmeyer from the Cluj Botanic Garden，Roumania． 15 cm ．tall，flowers yellow，lavender blue beard， 10 days later than pumila．Origin considered to be（I．aphylla $x$ I，pumila）back crossed to pumila．Pod parent to the variety＂Laurin＂，yellowish－brow flowers．

Bosniaca，Beck（reichenbachii complex），
Stem 10－25 cm．unbranched，usually one－flowered，variable． $2 n=24$ diploid．April－May．Yugoslavia and Bulgaria on granite formations．

Chalkadiki or Chalcidice．
Unp：．ublished name，collected in Greece，growing in contact with I。 attica．Stem $20-25 \mathrm{~cm}$ 。flowers yellow，purple，variegatas，blends． $\overline{2} n=24$ diploid and $2 n=48$ tetraploid forms．Flower forms and spathes resemble those of reichenbachii complex．Synonymous I．macedonica Nadj。

Griffithii，Baker
Stem 15－20 cre one－flowered，flower purple．April－May．Spathes long，slender，herbaceous．Rare，endemic in Afghanistan．

Kobasensis，Proden
Stem 12－14 cm one－flowered，flowers yellow．Said to be inter－ mediate between large chamaeiris forms．e．g．virescens and bosniaca． Doubtful validity as a species．Bosnia，Yugoslavia．

Panormitana，Todardo
Similar to I．pseudopumila，only larger．No description available。
ED：This article is continued on p .49 ．

The first membership list，published in the April issue of SIGNA has proven to be nost incomplete，with perhaps as many as one third of the members left off，so it was deemed advisable to reprint it and you will find this list is just exactly twice as many as the original one． Your Editor is still hearing from subscribers who did not receive the April issue of SIGNA and if any of the below listed members should have received this issue and did not；then please contact the Editor and a copy will be sent．There were so many of these omissions that it has become necessary to reprint 50 copies of this issue，as the original supply has become exhausted．Since the job is done here，and the original stencils reused，the only real problem is the time involved－four hours of scarce time to set up and re－run the issue．The October printing will be 200 copies and it is sincerely hoped this will prove sufficient．

The number preceeding the name indicates a one year or a three year membership．

1 Allen，Dr．R．C．
3 Atchison，Miss Alice
3 Austin，Fr。W，P。
1 Barnes，Mr．Clifford
1 Bowers，Mrs．Bonnie
3 Brooks，Mr．Robert
3 Brown，W．F．
1 Bussell，Mirs．Lee
3 Carter，Mrs．Grover C．
1 Central Valley Iris Society。c／o irs．Olive McMullen，President．
1 Champion，Virs．Florence
3 Chendler，R．S．
3 Cleaves，Mirs。Edith
1 Cook，Ferna C．
1 Cooney，Emmett $A$ 。
3 Dabagh，Mrs．Peg
3 Darr，Mr．William H． 3 Davidson，Mr．B，LeRoy 3 Dennis，Mrs．Zeh（Jro）

3 Dukes，Wm。J。
3 Dugan，Mirs．Daniel Fischer，Mr。Hubert Flintoff，irifo Jerry J， Gabler，Dr．Fran P。

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| 1 | Thaxter，Maynard K。 |
| 3 | Tiffney，MrsoW．N． |
| 11 $\frac{1}{2}$ | Trommer，Mr，Charles H． |
| 1 | Twin City Iris Society |
| 1 | Vaughan，Kevin |
| 3 | Venables，Mr．Bernard |
| 1 | Walther，Mrs．E．P． |
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| 3 | Whitehead，Diane Wilkes，Mr．Thomas M， |
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British Iris Society Species Group－continued from p． 46 ．
Pluriscapis，Prodan
Stem 5 cm ，leafy，flowers yellow，spathes long，green，the outer keeled；perianth－tube $7-8 \mathrm{~cm}$ ．The young extremity of the rhizome pro－ duces laterally about 10 flower－stems．Origin unknom．Cultivated in Cluj Botanic Garden，Roumania．Closely allied to I．pumila．

## Reichenbachii，Heuffel

Stem 18－27 cin ，leafy，unbranched：1－2 flovered：flovers lemon－ yellow or browish－purple：April－May：Spathes distinctive green－herb aceous，long－pointed and acutely keeled：Plant deciduous．Diploid $2 n=24$ 。 Tetraploid $2 n=48$ 。 Variable－central to a complex．Dis－ tribution essentially Balkans．Distinct varieties：athoa，tenuifolia， davisoffii．

## Sarajevoensis，Prodan

Stem less than 2 cm ，leafy．Flowers violet．March．Capsule large and elongated， 7 cm long．Outer spathe－valve large，mostly green－ herbaceous；inner valve membranous．Perianth－tube $5-6 \mathrm{~cm}$ ．Leaves glaucous．Bosnia，Yugoslavia close to I．pumila．

Scariosa，Willdenow ex Link．
Stem 15－30 cm，simple，leafy。 2－flowered；flowers lilac to red－ violet，veined bronze or red－brom；beard white tipped violet．April－ May．Spathes long－pointed，pale green and membranous，keeled。 Leaves sickle－shaped，glaucous．ilestem Siberia，Soviet Central Asia，Sinkiang and Mongolia．

Serbica，Pan
Stem 24 cm ，simple，leafy．1－2 flowered．Flowers lemon or green－ ish yellow，beard orange．April－May．Spathes herbaceous，slender 4 cm long．Diploid $2 \mathrm{n}=24$ ．Distinct，of the reichenbachii complex． Serbia，East Yugoslavia，on limestone formations．
50.

Suaveolens, Boissier \& Reuter
Of doubtful validity, as some collected species have been identified as pumila or mellita: within pumila variation? Described as a very dwarf plant with small flowers scented like Asperula adorata, butter-yellow with darker spot on the falls. Stem usually one-flowered; spathes herbaceous, outer valve keeled. Dobrudscha, East Roumania.

Timofejewii, Voronov
Stem 15 cm , not leafy。 One-rilcwered. Flowers violet, hafts of the segments are yellow. April. Spathes are long, green-membranous With violet veins, keeled. Leaves glaucous, sickle-shaped. Diploid $2 n=24$. Daghestan region, Last Caucasus.

## EDITOR'S PAGE

Bruce Richardson

In launching a new Society there are bound to be some pitfalls, some turning up in the most unexpected places. We have had quite a problem in obtaining a complete membership list (and there are grave doubts in $y$ mind that it is complete even now), however, the list as printed in this issue is as up to date as it is possible to obtain at this time and is twice the number printed in SINGA \#1. Some are new members just joined but certainly not all, so I am very much afraid some members will not have received the first issue. Any paid up member should have received SIGNA \#1 and the Cohen booklet "A Guide to the Pacific Coast Irises:". If any still has not received theseltwo items nlease write to me and I will send them.

One year members are reminded that dues become payable Jan. 1st, and we hope all of you will see fit to renew. Not all vas done in the way of publishing this year that was hoped for, but at least a start was made, and certainly a lot more will be accomplished in 1970. The new Study lianual will be issued and somewhere between two and four issues of SIGNA. The actual number depends on the amount of material your Editor can lay his hands on and the state of our finances, which in turn depend on how many nev members we can get and the success of the seed exchange. Please try and help by contributing material for SIGNA, soliciting new members and patronizing the seed exchange.

You will notice that the first six pages of this issue do not follow the usual format and this is solely due to the kindness and cooperation of ir. Bill Gunter in supplying not only the copy, but sending it already printed ready to use. A few more like Bill and life would be a lot easier for your Editor. liany thanks Eill, and I do hope you have started something.

A financial statement should have been included in this issue, it being the last for this year, but none was ever received from our Secretary, so that is one item that will have to ait another issue. It is hoped the next issue can come out Jan.1st, 1970, as surely during the winter there will be some spare time. Here we are right in the uiddle of the main part of the apple harvest and time is indeed precious.

