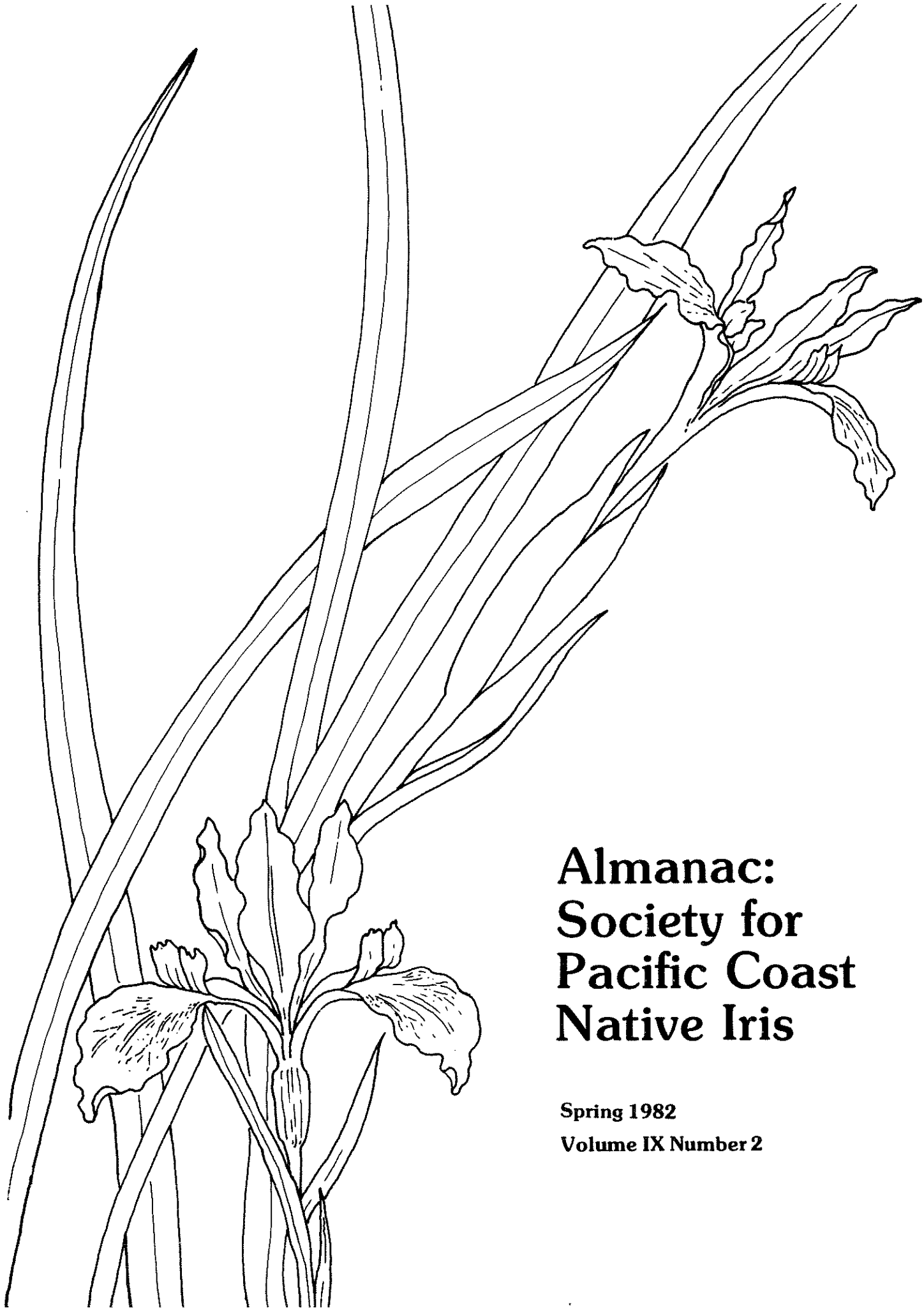

Almanac: Society for Pacific Coast Native Iris

Spring 1982
Volume IX Number 2

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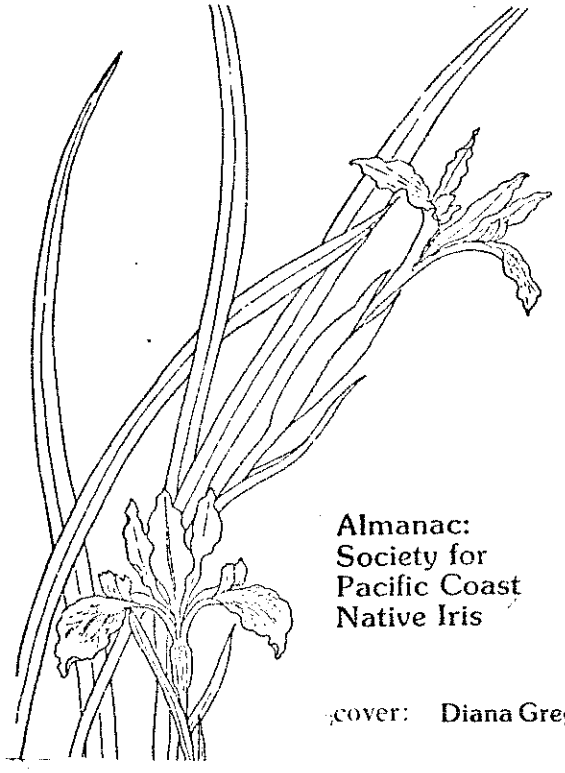

Almanac:
Society for
Pacific Coast
Native Iris

cover: Diana Gregory

Letter From the Editor

Dear friends,

"For Else Frye," in this issue, concerns a genetic dwarf form of *Iris douglasiana* which Roy Davidson is growing and proposes to register. He has graciously provided seeds which will be available in limited supply through the seed selling program this year.

We are grateful to LaRue Boswell for her work on the seed project. A look at our treasurer's report will attest to the success of the venture – in its infancy, really. May we ask you to make careful, planned crosses for us this spring?

The SPCNI meeting at the American Iris Society Convention in Denver will be held in the Denver Hilton Headquarters, Statler Room, at 7:30 to 8:30 p.m. on Friday, June 4, 1982. We hope to see you there.

As editor of the Almanac this will be my last issue. I wish to thank Phil Edinger for the help and encouragement he has given so willingly during the past two years. It has been a most pleasant association – downright fun, in fact. Phil has given many hours to the American Iris Society as editor of the *Bulletin* for four years and we are very fortunate to have him agree to edit the Almanac.

Our thanks to our willing contributors.

May all your Californicae bring you joy,

Jean Erickson

PUBLICATION STAFF

Editor	Jean Erickson
Associate Editor	Philip Edinger
Consultant	Jean Witt

REPORT OF THE NOMINATING COMMITTEE

The nominating committee submits the following to serve as officers of the Society for Pacific Coast Native Iris for the period of July 1, 1982 through June 30, 1984.

President	Jean Erickson Sebastopol, California
First Vice President	Duncan Eader Arcadia, California
Second Vice President	LaRue Boswell Concord, California
Immediate Past President	Virginia Del Judge Sequim, Washington
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Treasurer	Dorothy Foster Sonoma, California
Editor	Philip Edinger Cloverdale, California

August Phillips
Olive Rice
Glenn F. Corlew, Chairman
Nominating Committee

A NOTE FROM LA RUE

The 1981 sale of seeds was a great success. Thanks to everyone who donated the seed and helped in any way.

A total of 150 packages, with planting instructions, was mailed to eighty-five people from twelve states. This makes it evident that there is a definite interest in growing these beautiful little Pacific Coast Irises.

We are looking forward to the 1982 sale and hope everyone will make some planned crosses for us. Save all your bee pods too; we need seed. Thank you.

LaRue Boswell

The Society for Pacific Coast Native Iris is a section of The American Iris Society, membership in the latter is a prerequisite for membership in the SPCNI.

Dues:	Individual	Family
Annual	$ 4.00	$ 5.00
Triennial	10.00	12.00
Supporting Annual	6.00	
Life	50.00	

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Subscription price: $4.00/year

From The President

This will be my last message to you as president. In July you will have a new president and board; so before I bow out I have a few thoughts to pass on to you.

When hybridizers in Southern California send their guest irises to Carol Lankow for the 1984 AIS convention please state whether the plants bloom early or late in the season. This will help the convention committee to place them in the gardens with the best growing conditions for each type.

Jean Witt reports a successful cross of *Iris douglasiana* and *I. lactea* has been made by Dr. Tamberg in Germany and thinks it would be worthwhile for hybridizers to try for more crosses of the series ensatae with other species. She also suggests that we look for additional color forms of the different species with the exception, perhaps, of *I. munzii.*

Again I ask that each of you who is able send more PCN seeds to LaRue Boswell for the seed packets which the society will sell this year. The packets were so popular we are completely sold out.

I would like to thank the Executive Committee and Chairmen for all the help they gave me during my term of office. Living here in this rather isolated area it was only by the efforts of those faithful ones that I was able to function as president.

I wish for the new president and board a most successful and rewarding term and for all of you a lovely spring and wonderful year.

Virginia Del Judge

CONTRIBUTORS TO THIS ISSUE

Lewis Lawyer	Oakland, California
Dr. Tomas Tamberg	Berlin, Germany
Hattie Hubbard	Seattle, Washington
B. LeRoy Davidson	Seattle, Washington
Nancy Axelrod	Guerneville, California
Virginia Del Judge	Sequim, Washington
Dorothy Hujsak	Tulsa, Oklahoma
Frank Foster	Santa Rosa, California

The Roots of Iris Munzii

Lewis Lawyer

Until the national convention at San Diego in the spring of 1975, I hadn't even heard of *Iris munzii*. Yet here it was only six springs later, and I had become so involved in *munzii* breeding that I felt compelled to get out into the country to see for myself the place where this species originated, to search for its roots. Since Coffee Camp, on Coffee Creek in the Sierra foothills, is widely publicized as the location where R.C. Foster found and described the type species in 1938, Coffee Camp seemed to be the logical place in which to start the search.

The 1981 Regional spring meeting was to be held at Fresno. Obviously Coffee Camp was a lot closer to Fresno than it was to Oakland, so Adele and I decided that we should take time after the meeting to travel the added distance and look for those wild ancestors of our hybrids. Several people with whom we talked thought that the date, March 26, might be a little early for optimum flowering, but as it turned out, the timing was perfect.

So it was that shortly after noon on Sunday, March 26, we left Fresno and headed south. We arrived at Porterville in early afternoon, registered at a motel, and then drove to Jim Gibson's Iris Gardens a short distance away. He had collected *munzii* many times in the past, but had never succeeded in getting it to grow in his garden. For this reason, he hadn't been at Coffee Camp for years, but he was able to give us some advice on how to get there and where to look for the plants. Following his directions, we headed up the road toward Springville.

Coffee Camp, a few miles east of Springville, is divided into two sections, both well marked, with neatly tended parking areas. The lower half is a free day camp where several families were enjoying the wooded trails and the huge boulders on this pleasant Sunday afternoon. Up the road a short distance is an area with overnight camping facilities for which a fee is charged. Both are on the right side of the road as you are driving up, and lie along the edge of Coffee Creek which the road parallels. We searched both areas from one end to the other and were unable to find a single iris plant. Apparently we not only had arrived there too early to find any *munzii* flowers, but worse, we had arrived there too late to find any *munzii* plants. The "roots" for which we were searching had somehow vanished. Other types of wildflowers were there blooming in abundance, because the park was, after all, a "protected" area where no wild plants could be disturbed. But no iris.

Late in the afternoon we gave up. Not only had we looked in the areas where Jim Gibson had told us we would most likely find iris, but we had looked everywhere else too. I was beginning to get that queer feeling: "This must be one of those bad dreams where you are searching frantically for something, and nothing is where it should be."

Since there was still a little light left, we drove up the road a short distance and found a place where we could pull off the road and park. The surroundings were beautiful, and we clambered up a bank at the side of the road and headed back into the underbrush toward a clearing. Adele stopped suddenly and cried, "Look!" And there it was, a pale bluish white iris, the first wild *munzii* we had seen. Before dusk we had found hundreds of plants, most of which were in bloom, the flowers ranging from deep lavender to near white. Many flowers had the distinctive blue flush for which the species is famous. All were growing in the shade of the large oaks and the underbrush, and, much to Adele's dismay, almost all were surrounded with poison oak.

Now a few items of interest to those of you who are working with *munzii* hybrids: We found very few plants growing in large clumps such as you find in *I. douglasiana* stands. Most plants were very frugal, having at most one or two main branches and perhaps one or two side branches or shoots to carry them into the next year, reminiscent of the slow growth of SIERRA SAPPHIRE. By this, I don't mean that they lacked vigor – to the contrary most were extremely vigorous with tall sturdy dark-green leaves – they were seemingly just practicing family control. This trait seems to be genetic and I find many of my own *munzii* hybrid selections where the increase rate is less than 2X per year. My most frugal cross, SOQUEL COVE X SIERRA SAPPHIRE, with a total population of sixteen, had, at the end of the first year from seed, fifteen plants still with only the one original growing point, and one plant with a single side shoot (two growing points). Fortunately none of them even attempted a bloom stalk or I would have been

Adele calls this picture "Lewis in Heaven".

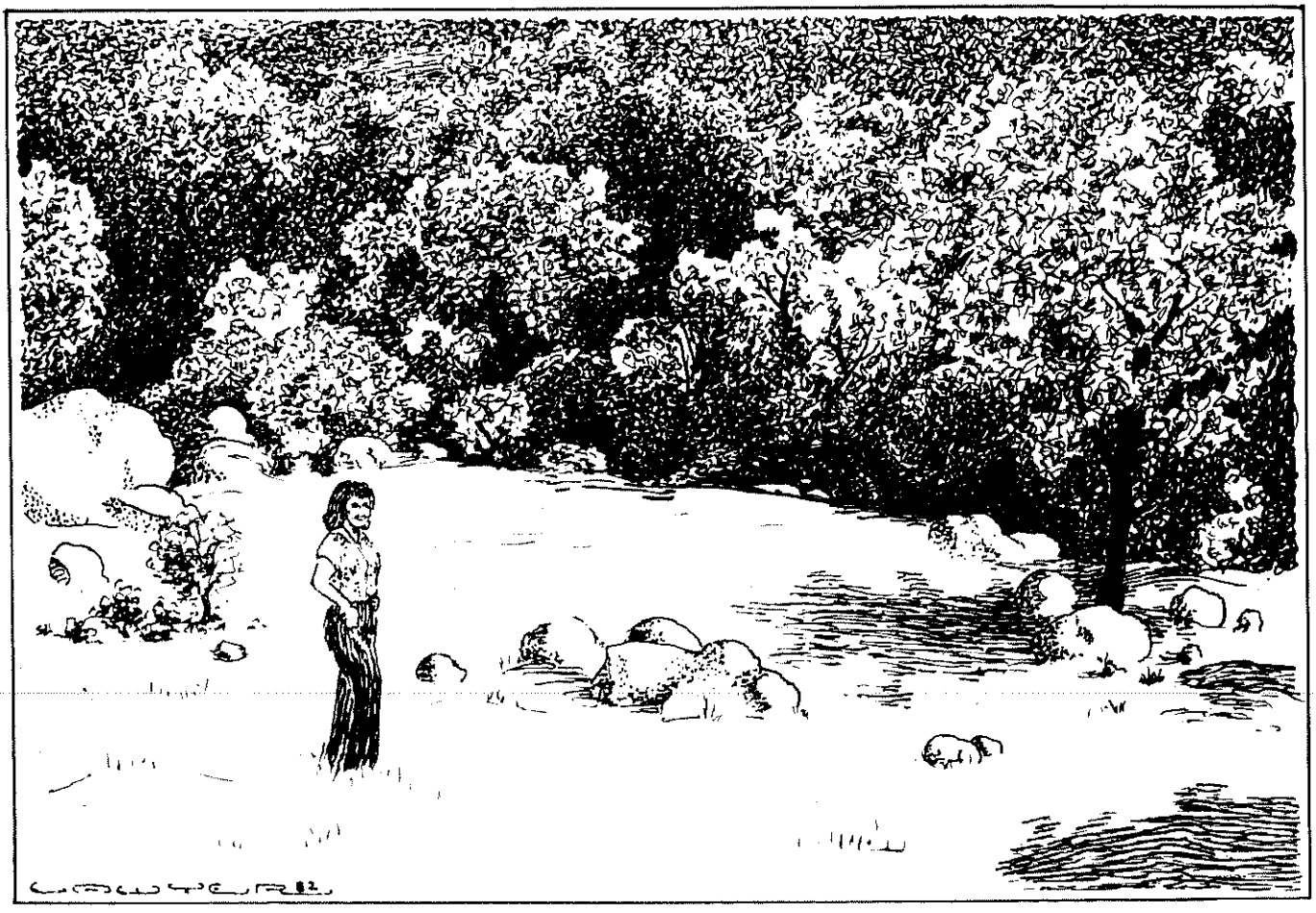
faced with fifteen bloom-outs. This can be contrasted to the other extreme in my own breeding where a single plant, FAIRY CHIMES X SOQUEL COVE, produced eleven 18-inch bloom stalks and thirty-seven growing points in thirteen months from seed. Another factor which needs improvement is the dominant narrow strap-like flower petal. A few plants had fairly wide petals, as did most of the plants we selected for our own breeding. But most are very narrow, a trait I find can recur with startling frequency in *munzii* derived crosses, even though both parents had broad petals. And one final reminder for you collectors: *munzii* plants seem to have an uncanny affinity for poison oak.

The next morning we again drove to Springville, but this time we turned left on the road to Balch State Park. When we arrived at what seemed to be the right altitude, we turned off on a private road where cattle were grazing. *Munzii* was abundant under the trees at the bottom of draws along the road, and was in full bloom. We obtained permission to roam the property, and to pick any flowers we might desire for their pollen.

The countryside is beautiful, with bright green rolling meadows surrounded by wooded areas, mostly oak. We found *munzii* in almost every shaded area, even down to the very edge of a stream where the roots would have to remain wet for at least most of the year. Only once did we find plants growing in full sun, and in this case there was evidence that trees had been removed from the area recently when building a culvert.

I had brought along a Nickerson Color Fan, and using it as a reference, we selected flowers which we felt would be an asset in our breeding program. It was amazing to us how blue certain purple flowers looked until you checked them out on the color chart. We would try to find a plant having a full open flower and also a second bud about to unfurl. The unopened flower was picked and placed inside a moistened lightweight "Baggie" sandwich bag. We had brought an ice bucket to keep the flowers cool, but the weather was such as to make this precaution unnecessary.

All day we searched and selected, obtaining in this way a total of twenty-two buds. These were carried home that night, placed in the refrigerator, and then removed the next day to allow them to open. As each flower opened, it was again graded for color and shape, and the pollen used on suitable flowers blooming in my garden. The end result of this operation is of course as yet unanswered, but we did obtain several hundred



Adele in a little meadow overlooking a tree-shaded ravine where we found many fine dark blue and violet *Iris munzii* flowers.

viable seeds which are germinating as this is being written.

Of course there are other ways to obtain seed from these plants without destroying them, one of which would be to tag blossoms of the better plants and to come back later for the pods. But, as we saw it, the most desirable plants were widely scattered, even miles apart, many in thick underbrush, and while coming back later to search for the marked pods might be fun, and challenging, it might also be quite frustrating.

We found *munzii* everywhere but at Coffee Camp, and the property owners quite cooperative. We found one small (one acre) shaded area of a pasture just across the fence along the edge of a main road so covered with *munzii* that it would have been impossible to walk through the property (excepting on the paths where the family cow had walked each day) without trampling on them.

So what has happened to the iris at Coffee Camp? Everything we saw at Coffee Camp seemed to be ideal for *munzii* to thrive as it had for hundreds of years before Mr. Foster collected that type specimen and published the location. Everything, that is, except one small item: the seemingly insatiable hunger we gardners have, to collect for our own little garden at least one each of everything that grows. The property owners we talked with elsewhere were mostly indifferent about the iris. One asked us if we had gone to the rodeo earlier that day at Springville. When we told him no, that we were primarily interested in flowers, he looked at us incredulously and said, "Well, I guess everybody's different."

But unfortunately the people who were the most likely to read about *munzii* and Coffee Camp were also the most likely to have become hooked on iris, and therein lies the problem. I'd venture to guess that of the hundreds of plants that must have been removed, each one lovingly, from the park, less than a handful have lived to bloom in someone's garden. But then, on the other hand we must balance this loss against the ecstatic rapture that must have surged through each person's heart as they carefully dug their plant and placed it in the trunk of their car, contemplating the exact spot where it would reside in their garden. Also it is comforting to speculate that even as I am writing this, some enterprising animal other than man is busily, although perhaps unwittingly, carrying seeds back across the highway and into the park, and that soon, even in Coffee Camp, we can search for and find the roots of *Iris munzii*.

ELSE FRYE

B. Leroy Davidson

Many rock gardeners here in Puget Sound Country grow a short-leaved, short-stalked iris with shiny green leaves that seems to trace back to the garden and Green Pastures Nursery of the late Else Frye.

Mrs. Frye was well known in her time for her contributions to horticulture for both her plants and her writings, both here and abroad. I propose naming this iris for her as it has a different personality, tenacity, and durability.

The flower is nothing special, being the usual lavender blue of so many Pacific Coast Native Iris. It is the plant which is the attraction. Fans of leaves are crowded in huddled clumps, each leaf with a little twist to it that gives the clump an attractive aspect. They are about seven to eight inches long and one-half inch at the broadest, with the twist revealing a slight contrast of the obverse side, slightly silvery. Stalks at flowering are not above the foliage so that the effect is of a mat-iris. By seed time they have elongated to a length of six to eight inches. There are two, occasionally three flowers at the summit.

While there is little to indicate this is anything more than a "runt" among *Iris douglasianas*, there are certain discrepancies of minor significance; for one example, the seed is not typically ovoid.

In my iris hunting years I once found on the cliffs and fells of Langlois Hill, Curry County, Oregon, small plants that resembled this and I suggest it may have come from such a place. Its value may be in its potential for adding a good stalk and foliage qualities to short growing plants. The Langlois Hill population marks one of the outlying stations (or discontinuities) of *I. tenax*, in fact the most southerly known within typical subspecies of *I. tenax*. Yet there is scarcely a plant in the area of several acres that does not show strong *I. douglasiana* characteristics and some of the larger individuals may well be purely of that species.

Several very small graceful plants I pried out of rock crevices did not stay small, and ELSE FRYE (if it is of this hybrid persuasion) represents a true ideal in scale; the flower, though perfectly acceptable, does not attract much attention if there is any competition at hand, its only shortcoming as a garden plant.

Our Members Say...

Last fall I sent to Joe Ghio for seeds and decided not to plant them outside this winter. Some I froze in damp Michigan Peat for a month, some were refrigerated in damp peat for a month, and the remainder did not get any pre-treatment. All three batches were planted 1/2" deep in pots of plain African Violet soil and placed on a window sill.

Those not receiving any cold pre-treatment have germinated faster than the others – in less than a month. Those germinating will be potted up in Styrofoam cups, some to be placed outside and some in my small glasshouse.

I always thought seed needed cold but now know they don't. If things go well, I believe I will discontinue planting outside in the fall awaiting germination in the spring.

Dorothy Hujsak

On the Northern California coast, Highway 1, near the entrance to Sonoma County Goat Rock State Park are large colonies of *Iris douglasiana* growing on the windswept hills on sheep grazing land. They appear as darker patches on the close cropped lighter green of the wide expanse of pasture. A few colonies appear to bloom more profusely than others. Light bloom begins in December and the season extends into mid-April. Some blossoms have rather narrow petals reminiscent of *I. chrysophylla*, while others – most of them – have wider parts. Color ranges from dark blue to pale blue with some evidence of bi-tone combinations. Ovaries appear to be of different lengths usually from three-quarters to one and one-half inches long, some being shorter and more rounded than the usual *I. douglasiana* type.

Frank Foster

New from Germany:

Colchicine Induced Tetraploids

Tomas Tamberg

In response to a letter from Francesca Thoolen.

Berlin
6 December, 1981

Dear Francesca,

This is a rather late reply to your friendly letter of May 22 this year. In the meantime we have seen the first flowering of our second generation tetraploid Calsibes and I enclose a note concerning these and some other plants for your bulletin. A similar thing will be sent to the Society for Siberian Irises who also asked me for it.

Until this flowering season I had not registered any Calsibe, diploid or tetraploid, but I have now registered one of the second generation plants for priority reasons as STARTING CALSIBE. The plants have multiplied quite well and it should be possible to introduce the first clone for fall 1982 planting.

Principally spoken, the cross which yielded STARTING CALSIBE: *(Iris delavayi* X *I. clarkei)* X *I. fernaldii* is a rather curious one, since the mother plant is a four and a half feet tall thing which is registered as BERLINER RIESEN (Berlin Giants). It grows like a weed and has three to four rather large flowers per stem. Compared to this, the form of *I. fernaldii* (light yellow) I used was a graceful pigmy. I am quite sure that the combination of PCNs of more advanced hybrid type having larger flowers on taller stems and a more robust growth habit would yield Calsibe plants of even more spectacular qualities. The trouble is, however, that the cultivation of modern PCNs is a difficult thing in our climate. Until now I have had a few flowers of Mrs. Brummitt's creations in my unheated greenhouse, but the plants are always at the weak side and will perhaps not flower next year. I have therefore decided not to cultivate the PCN-parents of my future Calsibes myself, but try to get fresh pollen of good hybrids from specialized PCN sources. I have once got some pollen from Mrs. Brummitt and this has worked quite well on 40 chromosome Siberians flowering some weeks later.

So I can only hope that you or some other members of the Society for Pacific Coast Native Irises can be persuaded to send some pollen of outstanding PCN cultivars or seedlings to me next spring. Plants of special interest to me as pollen sources are CANYON SNOW, RIPPLE ROCK and other wide petalled cultivars as well as *I. munzii* hybrids of clear blue colour. I would send back Calsibes I have grown after use of this pollen.

Yours sincerely,
Tomas Tamberg

For a number of years we have produced Calsibe hybrids which all have proved to be beautiful, but sterile. We therefore tried to induce tetraploidity by the use of colchicine and finally were successful in 1978 when two survivors from colchicine treatment flowered for the first time. Both plants came from *(I. delavayi* X *I. clarkei)* X *I. fernaldii* (light yellow). They had flowers of the sectorial chimaera type, i.e. some of the flower segments were tetraploid and produced lots of pollen. Both plants were selfed and one developed seven seeds from which five seedlings were grown by use of the embryo cutting method. Three of these plants flowered in 1981 for the first time. Their flowers were rather large and almost identical (Fig. 1). They all produced big quantities of pollen, but were only shyly seedfertile. We got three seeds after sibbing two of them and four seeds with pollen of a new tetraploid Calsibe we had grown in the meantime.

Another line of breeding we have followed for a decade has yielded Calsata hybrids. They come from crosses of PCNs with different forms of centralasiatic *I. ensata*. They are hardy and tough plants with rather small, but charming flowers (Fig. 2). Since they are all sterile we have done some colchicine treatments again and have got a number of survivors. One of them flowered in 1981, but did not set seed in spite of some pollen production.

Figure 1

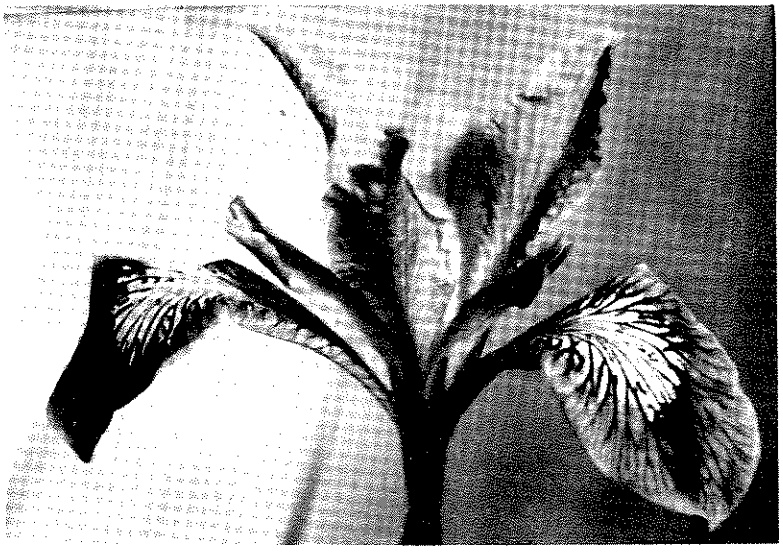


Figure 2

Editor's note: Accompanying photos were taken from color transparencies. Figure 1 registered as STARTING CALSIBE, the color being rose lavender with darker veining, and Figure 2, medium violet.

Early Observations

A COMPARISON OF DIFFERENT SPECIES OF NORTHWESTERN NATIVE IRISES

Adapted from the *American Iris Society Region 13 Bulletin*, April, 1965

Mrs. W.R. (Hattie) Hubbard

As many of us are better acquainted with our own western Washington native, *Iris tenax*, I will start with it as my standard of comparison. *I tenax* is deciduous although sometimes the old leaves still cling to the plant all winter. It does start new leaves each spring and at this time of year they are just coming out with small spears about an inch high. The leaves are tough and are often as much as eighteen inches in length and are lax – I mean not erect. The flower stems are also limber and bow down oftentimes to the point of being soiled with the rain's splashing the dirt onto them. This is a fault which we who are hybridizing with them are striving to correct by breeding with a stronger stemmed variety.

Here in western Washington the only colors are shades of lavender and a very few white ones. The white is apparently recessive, for I have seen places where there has been only one white in a huge colony of the more common lavender color. When seed from a lone plant of the white has been planted, the first year's plants to bloom were all lavender. Those coming in the next generation showed fifty-fifty division of the lavender and white. *I tenax* is found in most sections of southwest Washington, that is in the inland areas, not on the coast, and it prefers soil that has some clay in its make up and, therefore, is rarely seen in the gravelly prairie sections. It is short lived when transplanted to gardens with this type of soil.

In northwestern Oregon, around Vernonia, we find a yellow form of *I. tenax* which has previously been called *I. gormanii*. The true color of this species is a pale yellow but where there are natural hybrids with the lavender color – and there are many – we find shades of pinks, buff pink, yellow, and white. The plants have all the appearance of *I. tenax* but bloom at least two weeks later and higher up on the hills, while in the same area in the lower elevations there are many lavender and no yellow. The rarest color forms found here are white with blue lines on the falls and sometimes with blue spots. A yellow has been found that had a brown spot, and so I am still hoping to find a white with brown spots. It is not impossible, for there are a number of pinks that show brown spots and markings. So I continue to go there each year even after eight or nine years of looking.

In the valley section farther south in Oregon the *I. tenax* blooms are much darker, some even as dark as our bearded iris SABLE. Some are a solid color without any signal spot but most have at least the gold lines that we have in them here.

Iris douglasiana

The coastal iris in Oregon and northern California is the *I. douglasiana* and the most common color is lavender, in various shades. And, as with our *I. tenax*, it shades out to white in some places and to dark blue. There are also shades of buff pink but so far I have never seen a good yellow. Some have darker spots on the falls. This iris has stiff upright bloom stalks, some as high as two feet and others only eight to ten inches tall. The leaves are broader than the *I. tenax* and are a darker green color. They are evergreen in frost-free areas, but are damaged here when we get real cold spells. Because of this fault, they do not make attractive garden subjects here in our colder climate. They are considered the most widely spread species of all the western natives, appearing along the Pacific coast all the way from Coos County, Oregon, south to Santa Barbara County, California.

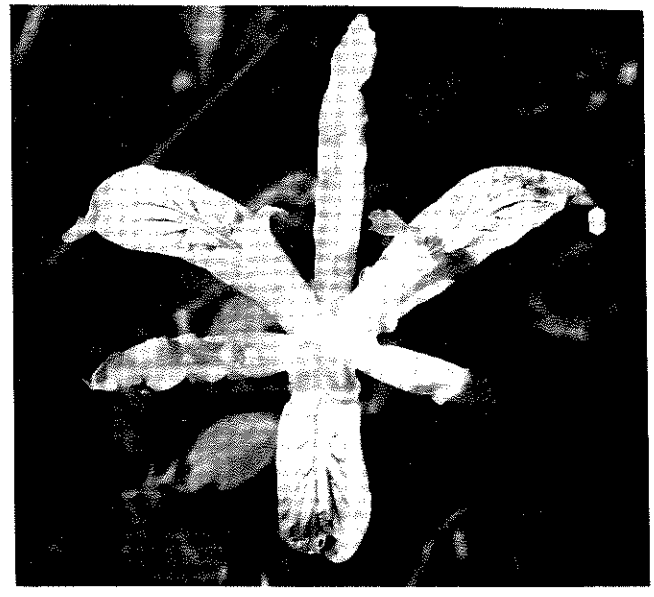
I. douglasiana is the most variable of all species, very short ones appearing on windswept, rocky hills along the seashore, and taller ones in the lush valleys and on inland low hills. They hybridize readily with all others of the native group and many beautiful hybrids have resulted in both the wild and in the cultivated gardens. Their chief values to the hybridizer are their stiff bloom stems and the fact that they are practically the only natives iris that has branched stems. Many of the hybrids have attractive attributes not found in the species.

Iris innominata

To me the most beautiful of all natives is the *I. innominata* which is found only in a small section of southwest Oregon, in the hills a short distance back from the coast. They have the most brilliant colors: deep golden yellow variously veined with darker colors or occasionally clear golden yellow with no veins, to lavender and deep purple. White was unknown in this species until about four years ago when one was found up in the hills along the Pistol River, and this was among a large area of deep purple ones. Then, after years of work among them, Dr. Matthew C. Riddle of Portland, found a white one in his seedling beds. So now we have two separate clones of white ones. Some true variegata types have been collected and these are truly beautiful and highly prized. The best of this type were found near the Powers to Agness Road in the South Umpqua and Rogue River areas.

I. innominata is the nicest garden variety, as it is evergreen and not subject to the browned leaves as in the *I. douglasiana* when hit by freezes. The main fault is the weak flower stem. So when working with them we try to hybridize with varieties that have the desired strong stems. The *I. innominatas* have small dainty flowers and so crosses between them and *I. douglasianas* give many choice varieties. Many of this cross have been registered both here and in England where work on them has been going on for many years.

Another choice variety, also found in southwest Oregon, is *I. bracteata* which is the only species coming only in shades of yellow, although a white one has been found. They are of medium height with sparse, lax foliage, but the ten to twelve inch flower stems are quite erect with two flowers to the stem. The flowers are the most beautifully shaped to be found. One was located that measured seven inches across. They are found in drier sections and in the high, light shade of pine trees although they are not confined to this shade. They also grow in cut-over areas around O'Brien, Waldo, and Cave Junction and along the Illinois River in Josephine County, Oregon. *I. bracteata* is a very distinct species and is not likely to be confused with any other species.



Iris chrysophylla

The leaves are broad and stiffer and thicker than other species and are distinctly two-sided. Because of the scant foliage, they are not too beautiful in the garden, but because of the near perfect flowers they are much sought after.

I. chrysophylla, another species, is native to southeastern Oregon in the open coniferous forests, and is found as far north as Lane County. Excessive moisture seems to be the limiting factor in distribution of this species. It will tolerate more shade than does *I. tenax*. This species varies, as do some others of the native iris, in that there are some forms having almost no stems while others have taller stems. The short stemmed ones are most beautiful as rock garden plants. *I. chrysophylla* is remarkable in that it has long, narrow style branches with the style crests which are longer than the entire style branch. They have been found only in the creamy yellow to white colors and all with darker veining.

One other species of iris is found in the Northwest and that is *I. tenuis*, a tiny little one found only along the Clackamas River in Oregon. It is an entirely different species from the above mentioned natives, being more related to the Evansias, and has lately been classified with them. No hybrids have ever resulted from controlled crosses with other natives of the Northwest. The flowers are fine, narrow petalled of creamy white color.

The only other native iris found in Washington and Oregon is *I. missouriensis*, which is found in the eastern portions of both states. Its native habitats are the wet-in-winter and dry-in summer areas like stream beds and swampy areas. It is taller than our other species with strong erect stems having two or more flowers per stem and in appearance is much more like the Siberian Iris, although they are not related. It is not related to our coastal species either and no hybrids are known to exist. Although a native of areas known to have alkaline soil, they make good plants for the garden in this area. The flowers come in shades of dark blue to white.

Since Alaska is of our Northwest section, mention should also be made of their only known species, *I. setosa*. It is variable as to size but all are shades of blue and no white has ever been mentioned*. The distinctive point of this species is that it has practically no standards. The color is more blue than is that of many of our native iris. Authorities say that *I. setosa* is the species that once must have extended clear across the continent from Labrador to Alaska. The forms of *I. setosa* surviving today in Labrador, on the Gaspe Peninsula, and northern Maine are more dwarf and less varied than the Alaskan remnants of the species. Although their natural habitat is very wet, they will thrive in our gardens, given enough moisture. Although they have a different history and locality of origin than does our native iris, hybrids between the two species have been known to exist. One such originated in Olympia and has been shown in our show and is growing in Roy Davidson's garden. The four sister seedlings of this cross all have more distinct standards and are more lavender than the *I. setosa* parent. The other parent of this rare cross is *I. gormanii*, or yellow *I. tenax*.

Note: *White has been known since this writing and was in cultivation, but since has been lost.

Iris tenax X I. innominata (Duane Meek)

Hattie Hubbard, with a vital interest in PCNs over many years, lives in Seattle, Washington.

Duane Meek, Concord, California, at a gathering of irisarians in January, reported having Joe Ghio's PESCADERO in bloom. It had been flowering on short stems for a month.

In Duane's opinion PESCADERO is the cleanest, most attractive hybrid Joe has introduced. It has mid-violet standards and blackish violet falls with a hairline light violet edge.

ON GERMINATION OF SEED

Volume VIII Number 1 of the *Almanac* which deals with germination of seed is available through the Editor for $2.00 postage paid.

We Get Letters . . .

Dear Editor,

I am not happy about having white flowers among the Pacific Coast Natives called "albinos." I believe the term "albino" refers in its strictest sense to an abnormal or pathological condition whereas the lack of pigment in white flowers of the Pacific Coast Natives is instead a genetically recessive trait, perhaps with more than one gene involved. Should any recessive trait that gets expressed be called "abnormal"?

Here are some definitions:

Columbia Encyclopedia

Albino – an animal or plant lacking normal pigmentation.

Random House Dictionary

Albino – an animal or plant with a marked deficiency in pigmentation.

The Oxford Dictionary

Albino

3. Sometimes said of plants in which no chlorophyll is developed in the leaves.

Webster's New International Dictionary Unabridged 2nd & 3rd ed.

Albino

3. Bot. A plant lacking pigment or chromatophores, as:

a. One marked by pathological (esp. total) absence of pigment both yellow and green; also an etiolated plant.

b. One whose flowers are white because of the undeveloped chromoplasts.

I have always used the term in Webster's 3a sense: seedlings with no chlorophyll, which soon die. The 3b sense sounds like a specific condition. Chromoplasts are discrete bodies in the cytoplasm contain fat soluble pigments commonly called carotinoids. These are the red, yellow, and orange pigments found in tomatoes, carrots, etc., and which give us the yellow of many of our irises as well as the shell or tangerine pinks. (*Chloro*plasts are the plastids which contain the green chlorophyll and the apparatus for converting sunlight into organic compounds which can release energy. Plants lacking these plastids soon run out of energy for the life processes).

I do not think *Iris douglasiana* flowers have any plastid pigments in them. Their pigments are from the anthocyanin pigments (purple, violet, and blue) or possibly flavones for the cream colored flowers. The anthocyanin pigments are all water soluble in the cell sap. (See the chapters on 'Pigments of Irises' and 'Iris Genetics' in *'The World of Irises'*.)

Yellow *Iris innominata* may contain plastid pigments in the flowers. Apparently, white flowered *I. innominata* is very rare and such plants are found only among populations of blue violet colored forms of the species. (See 'Albino Californice in Nature' by B. Le Roy Davidson, **Almanac**: Society for Pacific Coast Native Iris, Fall 1980 Volume VIII No. 1:6.) If the yellow and violet are inherited separately, whiteness is more apt to appear in flowers where the yellow is already absent. A recessive trait? If so, the blue violets must all be homozygous for absence of yellow. A recessive for the absence of the violet anthocyanin pigment therefore can be more readily expressed as white. Could the absence of yellow chromoplasts be called abnormal and fit the b. sense of Webster? What about the blue violets? Are they abnormal because of the absence of chromoplasts?

Come spring I must remember to pinch and squeeze flowers of the Californicae to see if yellowness runs out on my fingers or only solid yellow particles appear – a crude method but, perhaps, a clue as to whether the pigments are in plastids or cell sap.

To summarize: I do not like the term "albino" for white flowers of the Pacific Coast Natives; I think it should be reserved just for pathological conditions.

Come forth, you real geneticists and express your views!

Nancy Axelrod

Treasurer's Report

FEBRUARY 28, 1982

CASH ON HAND SEPTEMBER 30, 1981		$ 564.60
DUES AND RECEIPTS:		
Dues Collected	$386.00	
Dues Collected by A.I.S.	72.00	
Sale of Cohens	60.00	
Sale of Seeds - LaRue Boswell	152.06	670.06
		$1,234.66
DISBURSEMENTS:		
Postage - LaRue Boswell	$ 1.00	
Envelopes - Cohen	5.19	
Postcards and Stamps	11.50	
Fall '81 Almanac		
Great Graphics	133.00	
Printing	117.55	
Postage	75.07	343.31
Balance on hand February 28, 1982		$ 891.35

DOROTHY E. FOSTER, Treasurer

Contents

RESTLESS NATIVE, winner of the 1981 Mitchell Award was registered in 1975 by Joe Ghio and is listed as a red bitone. Drawing by Virginia Del Judge.

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