

**Almanac:
Society for
Pacific Coast
Native Iris**

**FALL, 1990
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PUBLICATIONS AVAILABLE FROM THE SPCNI TREASURER

- Diseases of the Pacific Coast Iris**
Lewis & Adele Lawyer: ALMANAC, Fall 1986.
22 pages, 9 photographs. \$3.50 postage paid.
- Third Cumulative Check List**
Francesca Thoolen: 36 pages. Lists and describes Pacific Coast native iris and named hybrids through 1985. \$4.00 postage paid.
- A Guide to the Pacific Coast Irises**
Victor A. Cohen: The British Iris Society 1967. Booklet, 5.5 x 8.5, 40 pages, 16 line drawings, 8 color and 6 black-and-white photographs. Brief description of species and sub-species including their distribution. \$4.00 postpaid
- A Revision of the Pacific Coast Irises**
Lee W. Lenz: Photocopy of *Aliso* original. Booklet 5.5 x 8.5, 72 pages, 9 line drawings, 14 photographs, and 12 maps. Definitive work on the taxonomic status of the *Californicae*, with a key to the species and sub-species. Detailed maps and accounts of distribution. \$6.00 postage paid.
- Hybridization and Speciation in the Pacific Coast Iris**
Lee W. Lenz: Photocopy of *Aliso* original. Companion booklet to the above, 5.5 x 8.5, 72 pages, 30 figures, graphs, drawings, and photographs. Definitive work on naturally occurring inter-specific crosses of PCI, including detailed account of distribution. \$6.00 postage paid. If ordered together, both Lenz booklets may be obtained for \$10.00 postage paid.

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The Society for Pacific Coast Native Iris is a section of the American Iris Society; membership in AIS is a prerequisite for membership in the SPCNI. If you wish only to receive the ALMANAC (two issues per year), the annual subscription rate is \$4.00.

Membership	Individual	Family
Annual	\$ 4.00	\$ 5.00
Triennial	10.00	12.00
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Please send membership-subscription monies to the SPCNI Treasurer.

ALMANAC

ALMANAC deadlines are March 1 and September 1. Back issues are available for \$3.50 each, postpaid. Complete index arranged either chronologically, by subject matter, or by author. \$1.00, each or all 3 for \$2.00, postpaid. Please address the Editor.

PRESIDENT'S MESSAGE

Another spring and summer come and gone. Fall's cooler weather has arrived in the San Francisco Bay area. In another month it will be time to transplant the Pacific Coast Natives. My seed should already be in the ground (it isn't). Where does the time go?

Speaking of seed, we have a revised seed list, published in this *Almanac*. Once again I'd like to encourage anyone who has a difficult time with the natives to try growing them from seed. This is an inexpensive way to get started or to expand the collection with plants acclimated to your specific growing conditions.

Also in this issue is a report of the Society's outing this spring through Lake and Sonoma counties in California to see *Iris purdyi*, *I. macrosiphon*, and *I. douglasiana* growing in their native habitat. We had a smaller group than on the first expedition, but a good time was had by all. On the second day, even the bus driver

was climbing the hills with us and spying out all the variations in the clumps of iris.

It looks like the Society sponsoring an expedition is now truly an annual event. The third annual expedition is already scheduled for next spring, - look for information on the Oregon trek further on in this issue.

The Society remains in sound condition. Membership is continuing to grow, the funds on hand are adequate to cover our normal expenses (mainly the semi-annual publication and mailing of the *Almanac*), and most important of all - there are capable and conscientious workers in all the key positions of the society.

I hope each of you has the time you'd like to play in your garden this fall. Happy Irising.



FROM THE EDITOR

What's in a name? I know of people whose lives have been dramatically affected by a name carelessly bestowed by some unthinking parent. But what about flowers? Gertrude Stein once said, emphatically, "A rose is a rose is a rose"! Juliet, not so rigidly bound, suggests that "A rose by any other name would smell as sweet." Actually, both may be right. A rose is a rose, but changing its name would in no way make it smell any sweeter nor alter its appearance.

In the fall, 1983, issue of the *Almanac*, Jean Erickson discusses the results of a questionnaire in which members of SPCNI were asked to vote on a possible name change of our organization from Society of "Pacific Coast Native Iris" to something else. Suggested were: Pacifica, Pacific Coast Native, Pacific Coast Iris, Pacific Coast Native Hybrid, and Californicae. I was pleased when the membership decided to leave it unchanged.

Elsewhere in this issue are two more articles discussing names, one about *Iris thompsonii*, and the other wherein our newest Honorary Life Member, Lee Lenz, discusses his thoughts on the species concepts in Series *Californicae*.

In the case of plants, there are usually two distinct types of names involved, one horticultural and the other botanical. Botanical names are strictly delineated by international rules. They can be altered, and occasionally are, but only within the framework of the international botanical regulations. Horticultural or common names are not bound by any rules except common sense and usage.

Sometimes common names are identical to or similar to the botanical name, for example iris and *Iris*, rose and *Rosa*. Sometimes they are quite different, like the botanically-sounding name, nasturtium, which is really *Tropaeolum majus*.

Sometimes one common name is used for several species, for example "Dusty Miller" is listed as the common name for five different genera of plants in *Hortus Third*. The advantage of botanical names is that there is just one that is correct. Taxonomists may argue about them, but must have valid reasons, not just whims, for any changes.

Some members have expressed displeasure with the name "*Californicae*". This may be a valid complaint from the people of Oregon and Washington, but botani-

cally speaking, there is nothing that any one can do about it. According to Lenz in his taxonomic history of the PCI, they were first separated into a group called "The Californian Group" by Dykes in 1913. Then, in 1930, Diels Latinized the name to "*Californicae*". So according to the international rules of nomenclature, unless someone can find an earlier term, it will remain *Californicae* (Diels).

So what will we call our irises? One member went so far as to suggest in Jean's survey that we use only the term, "*Californicae*". Recently someone else proposed that we use "*Californicae*" when referring to wild species and hybrids, and

"*Pacificas*" when referring to man-made cultivars. Realistically, however, we are not bound by anyone's suggestions, including mine, unless we are talking about the Series *Californicae* in a botanical sense, then we must use "*Californicae*". So, until someone bigger than I am convinces me otherwise, I'll continue to call them by one of their familiar common names: Pacific Coast Iris, PCI's, *Pacificas*, Pacific Coast Natives, PCN's, Pacific Coast Native Irises, or just Natives. I like them all!



BIG MONEY WINS MITCHELL AWARD

BIG MONEY, introduced by Joe Ghio in 1984, has been awarded the 1990 Mitchell Award for excellence in the *Californicae*. BIG MONEY received 28 votes, the highest number in eight years. First runner up was another Ghio introduction, NAPA VALLEY, introduced in 1985.

BIG MONEY is a deep yellow self selected from a cross between Short Order

and PR-309S: ((Corralitos x Banbury Princess) x (Greenbriar Contrast x California Native)) x Santa Rita.

This will be the tenth consecutive Mitchell Award by one of Joe's introductions, certainly an outstanding endorsement of his contribution to our fine selection of named cultivars. Again, congratulations, Joe!

LEE LENZ NAMED HONORARY LIFE MEMBER

Dr. Lee W. Lenz, Director Emeritus, Rancho Santa Ana Botanic Garden, has been named Honorary Life Member of the Society for Pacific Coast Native Iris by our Board of Directors. He is the fourth person so honored. George Stambach became the first Honorary Life Member at the time the SPCNI was organized in 1973. Marjorie Brummitt of England became the second, in 1977, and Marion Walker the third in 1984.

Dr. Lenz, a native of Montana, took his undergraduate studies at Montana State University and obtained his M.S. degree at Louisiana State University. After a four-year term with the U.S. Navy during World War 2, he obtained his Ph.D. at Washington University in St. Louis, Missouri.

His first work was with the Rockefeller Foundation, identifying the races of maize in Mexico. He joined the staff of the Rancho Santa Ana Botanic Garden as Botanist in 1948, and became its Director in 1960. His primary interests are taxonomy and cytology.

More important to our group is his work with the Pacific Coast iris which began shortly after he joined the Botanic Garden staff.

While he is probably best known to us for his taxonomic studies of the PCI, he has also introduced numerous named cultivars, the first of which, PACIFIC SPLENDOR, registered in 1949, was the first controlled PCI cross of record to be introduced. Probably the best known of his introductions are ALMA ABELL, CLAREMONT INDIAN, RIPPLE ROCK, SIERRA SAPPHIRE, and, more recently, CLAREMONT BIG SKY, and CLAREMONT BLUEBIRD.

Also vividly remembered by those privileged to have seen it, was his beautiful selection plots of PCI, notably his *I. munzii* hybrids which occupied a section of the Botanic Garden.

Dr. Lenz's two taxonomic studies of *Series Californicae*: *A Revision of the Pacific Coast Irises* and *Hybridization and Speciation in the Pacific Coast Irises*, published in 1958 and 1959, are considered

to be the definitive work on the subject. First published in *Aliso*, and for some time out of print, they were recently photocopied and reprinted by SPCNI, and are once more available.

In 1969, in recognition of his work with the Pacific Coast irises, he was awarded the Foster Memorial Plaque by the British Iris Society.



SIERRA SAPPHIRE (Lenz '72)
Mitchell Award winner, 1987

Less well known is his work on the spuria irises. In the experimental garden at Claremont he brought together a large collection of species grown from seeds that had been collected in Europe, the Middle East, and Asia. Among the many collections was a particularly fine deep yellow-flowered form grown from seeds gathered in a salt marsh near Ankara. Suspecting that it might represent an undescribed species, he alerted Brian Mathews at the Royal Botanic Gardens, Kew, who later described it as *Iris xanthospuria*. Known originally only as "Turkey Yellow", it appears in the background of some modern spurias. Increasing administrative duties prevented him from conducting overseas research work, and the project was abandoned after preliminary cytological studies had been published.

Now a part-time resident of Cabo San Lucas, Baja California, Dr. Lenz is preparing a catalogue of the plants of the Cape Region, Baja California Sur, Mexico, and a natural history of the same region.

We interviewed Lee in his office at the Rancho Santa Ana Botanic Garden in mid April, to see how he arrived at his interest in flowers. He patted his dog, Bullet, a beautiful lean whippet, on the head and said, "I was raised in Montana, right on the border of Yellowstone Park, a miserably cold climate. When I was three years old I got tired of the snow and asked my mother to get some seed for me. I took an evaporated-milk can, one of the little ones, and crawled under the house and put a little dirt in it and planted the seed. It was cosmos. I would carry it from window to window so it would get plenty of sun, and it bloomed - about that [holding his fingers four inches apart] tall. So that was my first attempt at growing plants. Cosmos has been one of my favorite plants ever since.

"I was not many years older than that when I got my first iris, a tall bearded. I don't remember what nursery they came from, but I got two plants, diploid tall bearded, and they cost me 25 cents apiece. In Montana, there are very few things that will grow. Horticulturally, it's impoverished. Diploid irises are one thing that will grow there, and lilacs, herbaceous peonies and Oriental poppies, that's about the extent. My mother was a gardener, and we had quite a few peonies and Oriental poppies, and I had the iris. I don't have the slightest idea what the name was, but I remember that it was a sort of a tannish color. That was the last of the irises until I was in college.

"When I was at Louisiana State, I saw my first Louisiana irises. That was before I ever heard of the *Californicae*.

"I studied at Washington University at St Louis, with Dr. Edgar Anderson, and he's the one who devised the method of identifying hybrids, and depicting their characteristics with these little pictographs. Anderson, with this technique, had studied hybridization in the Louisiana irises. So, when I finished my degree and came out here and found that there was a whole section of iris growing here that was distinct, I started looking into it and began to recognize that there was hybridization going on here, too.

"I applied the same technique that Anderson had used in the Louisianas, here in the *Californicae*. So that's the whole story, That's how I got into irises again."

In answer to a question whether he had majored in plant sciences, Lenz replied, "Oh yes, in botany. And for my

Ph.D., my minor was in anthropology. When I worked for the Rockefeller Foundation, it was the classification of the races of corn. That was before I got my degree. Then, when I graduated, I came directly here to the Botanic Garden. That was about 42 years ago."

Asked about what other California plants he had worked on, he replied, "On the Brodiaeas, the yellow Brodiaeas, or Tritelias they call them now. I've done as much work with the Tritelias as I have with the Irises."

Adele mentioned that when we had come up the path, we had noticed a large Heuchera planting which had been introduced by the garden and which was quite beautiful. "Oh yes, that was one of my developments. Yes, the heucheras are very beautiful, and they are quite popular, too."

"One of my early developments was a strawberry ground cover, with the idea that using a native strawberry, *Fragaria chiloensis*, as one parent you would have something that would produce fruit as well as being a ground cover. So I hybridized *chiloensis* with some of the commercial varieties, and the whole mesa out here was covered with test plots one year. We would go out and taste them as one of the requirements. One of them was introduced as Variety 25, and it was one of the most popular ground covers in Southern California for many years. Nurserymen sold thousands of flats of them. Then it picked up some virus diseases of strawberries and so it is no longer in existence."

"I also worked on *Diplacus*, *Mimulus*, and produced a lot of hybrids. Some nice *mimulus* hybrids have recently been produced over at UCLA."

"Something I tried many years ago, and didn't succeed, but one of my students did, was to cross *Fremontia*, with the Mexican hand tree, *Chiranthodendron pentadactylon*. The hand tree has big bowl-shaped red flowers, and the stamens look like five fingers. For many years it was known from one plant growing in Toluca, Mexico, but since then they have found forests of it in Guatemala and Chiapas. They're in the same family, so I thought 'how about crossing those two'. As I said, I didn't have any luck. I didn't have very much pollen, but one of my former students did. He produced one seed and it germinated, and now it's everywhere. It was to have been named in my honor, *xLeelenzia ranchorum*. but the rules of botanical nomenclature have

recently been changed, and the names of intergeneric hybrids must now combine the names of the parents. Thus it is now known as *xChiranthofremontia lenzii*.

"The problem here is that the hand tree is very sensitive to frost. The hybrid will withstand the frost, but you lose the buds. We haven't had any flowers the last two years because of the cold winters. But the plant is very vigorous. I have one at home that is fifteen to twenty feet tall. It should make a large tree eventually. It has a very beautiful apricot-orange flower, about intermediate between the two parents."

In answer to a question about the fact that *Fremontia* tends to be short lived, and another about propagation, Lee responded, "*Fremontia* is sensitive to root rots, but so far the hybrid has been very reliable. It's propagated by cuttings. It doesn't produce seed, although if you stain the pollen, you find a lot of stainable pollen. My guess is that if you get enough flowers backcrossed, that eventually you would get seed."

Asked if he knew anything of the Pacificas before moving to California, he replied, "No I didn't. The first winter I was here, the winter of 1949, I went to Berkeley and met Mitchell, Sydney Mitchell. He took me out and we dug up plants. The ground was frozen."

Ever true to our beloved Bay Area, we protested that that was very unusual.

"No. Mitchell had cold ground. He was located on a cold spot, on the eastern slope of the hill. But anyway, that was the first material that I had. And then there was a man in Australia, Fred Danks. Danks sent me some seed. That was the start. Then, in 1950 I started collecting my own. By that time I had gotten interested in working the coast."

"I had some slides from Australia some years ago, and I couldn't believe what I saw." Lewis commented that Hargrave had done a lot with the Pacificas in Australia, and that as a matter of fact two of Joe Ghio's introductions, EMIGRANT and FOREIGN EXCHANGE, were from Hargrave's seed. Lenz continued, "The colors were beautiful, unbelievable. Jean Stevens, of New Zealand, also did some nice work with them. She came and visited me one year and I was able to take her to see *munzii*. It was the first iris she had ever seen growing in its native habitat, and when she saw the first plants she started to jump out of the car before I could bring it

to a stop. And of course, England had Mrs Brummitt, Marjorie Brummitt. I used to send her seed, and also plants. She got her *munzii* start from me."

Lewis asked Lee if when he first started breeding the PCI, if it was just from a scientific point of view: "No, not really, not particularly. I think I recognized right from the start that they had a horticultural interest. Of course, I wanted to try all possible crosses to see that they were all compatible. This was to back up the hybridization work that I was doing in the field."

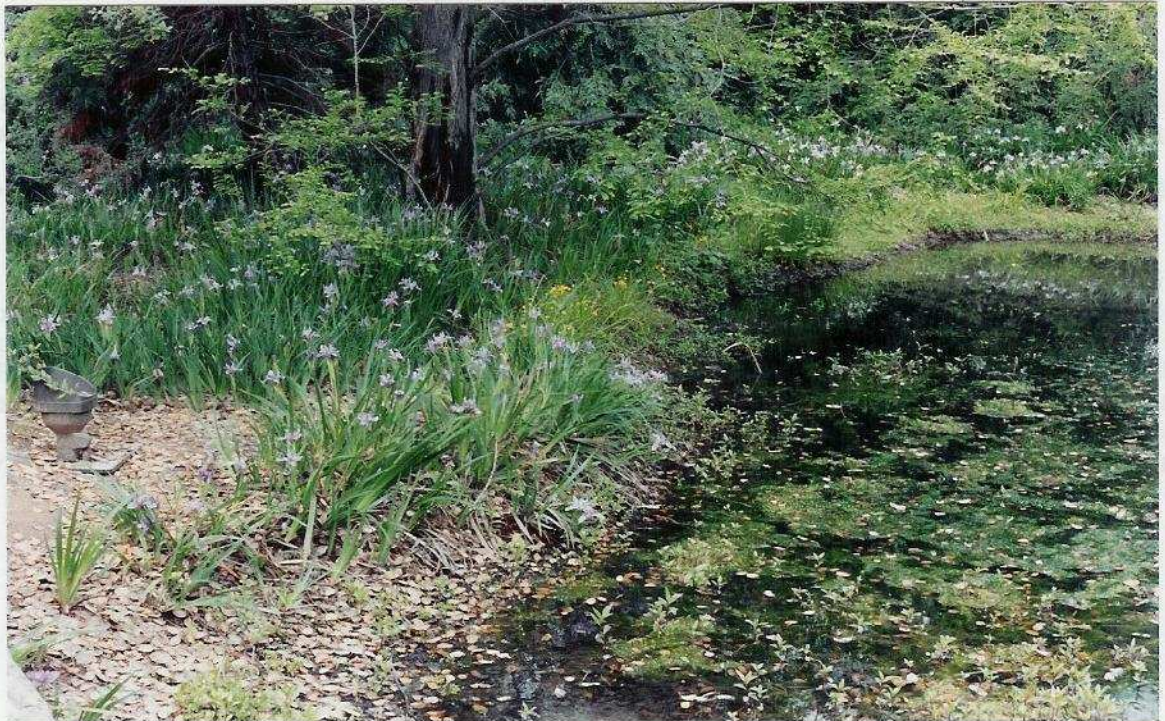
Lewis asked him how he could justify calling them different species when all of them intercrossed: "Oh, that's just a matter of definition of species, that's one of those difficult things. The most extreme example that I've seen, if you want to use crossability as a test of being a species, is in the orchids. You can take two orchids that are so remotely different that they couldn't be called the same species, and yet you hybridize them and they're perfectly fertile. And the same way with cacti, those two groups. No one in his right mind would say that they were the same species and yet they are perfectly

fertile. What has happened is that they have differentiated morphologically, without changing genetically."

Adele asked if there were two schools of thought on how to classify such things: "Oh yes, these irises could probably all be put in one species, with sub species and varieties, but you're really not changing anything. You're recognizing each one as an entity. So it's just what you want to call it, and meaningless to argue about."

We mentioned that we were going to go by Santa Barbara on our way home and try to interview Dara Emery. "Their Director, at Santa Barbara, is one of our former students. He finished here and then went to Cornell. Then he took the job at Santa Barbara. The director at the Botanic Garden at UCLA is one of our former students, and the Director of Education at the Missouri Botanical Garden is one of our former students. We've turned out quite a few students who have gone on to directorships at botanic gardens.

Asked if these students get a degree, he answered, "Not a degree having to do with the administration; they get a degree in botany. But having the experience here



Naturalized planting of *Iris douglasiana* at the edge of a pool in the Rancho Santa Ana Botanic garden at Claremont. One of the many iris plantings established throughout the garden during the Lenz administration.

and seeing the operation over a period of years, they get a feel for it. The same way for me at the Missouri Botanical Garden. I was there for four or five years. There's no course in it, but I got the feel of how everything works. That makes it much simpler for a person to take over."

Adele asked Lee if when he came here, he had substantially changed the thrust of the Botanic Garden. "No, the plan was pretty well laid out by the founder, and we just developed it as we went along. There have been more changes in recent years than we had during my administration. Munz was the first Director. I followed him, and our administrations were very much the same.

"We were much more restricted for money. The endowment was not as great as it is today, in fact since I retired the endowment has doubled, and it's now over 22 million. The budget this year is over 2 million, about double my highest budget."

When asked if a "Friends of the Botanic Garden" organization, similar to the one at the U C Berkeley Botanical Garden, played an important roll in the garden's fund raising, Lee replied: "We have a new, a

very strong development office, and they have their sights set high. There is a very large Friends of the Garden group now.

"The whole thrust of the garden is different, now. It is more 'public' oriented, whereas before it was more 'research' oriented. Where the earlier research was more oriented toward monographic and floristic studies, it has now shifted to the currently popular field of molecular biology."

When questioned about his present work in Baja California, Lee held up a photograph of a beautiful mountainous area. "This is the Sierra de la Laguna. See that high peak in the distance? I'm going up to the top of that next week. It's a three-day pack, and no botanist has ever been on it. I have a friend, and former student, who teaches at Cal State, Los Angeles, who often goes with me, and a friend down there who arranges for the mules." Lewis looked at the photograph for a moment and commented on the beauty of the scene. "It's big country, - beautiful, but very difficult to get around. Very difficult."

EXPEDITION, 1991 IT'S OREGON NEXT YEAR

Claude and Joanne Derr, Chairmen of arrangements for next year's Expedition, have set a date of Labor Day weekend, May 25, 26, and possibly 27th, 1991, as prime-time for a visit. The emphasis will be on *I. tenax* and *I. tenuis*, with many other types of wildflowers as frosting on the cake.

Claude and Joanne have already spent a lot of time exploring the area to locate the best routes and the most spectacular colonies for our bus trip. Since this should be a rich area to see *I. tenax* which we have not visited on previous trips, two buses are a possibility.

The area around Sandy is mentioned, and Goat Mountain near the Clackamas river. "We've made a couple of trips over to Goat Mountain, not too far from where we live. We talked to a man from the forest service who lives around here. He told us about a place where there were more iris than he had ever seen in one spot. We went up the hill and down the other side, near the Clackamas River. There were about 8 or 9 acres of *tenax*."

They mention Monument Peak, south east of Mill City, as a targeted area where many variants and possible hybrids of

IRISES
FOR 1991

A
GARDENER'S
COLLECTION

1991 IRIS CALENDAR

It's time to order our sixth annual iris calendar. Make check to AIS: for single copies, send \$5.00. Quantity purchases come in packets of ten or multiples of ten: the price for packets of ten is \$50.00. Order from C. J. Lack, AIS Sales Director, 718 West 67th Street, Tulsa, OK 74152.

tenax can be seen in the company of other flowers. Claude tells us that a marvelous area here had acres of calypso orchids. As he puts it, "We found one area that was full of calypso orchids. There must have been acres of them, smothered in yellow violets. It almost took your breath away it was so beautiful. When you come to a spot like that you always feel like you're closer to the Big Man, and it's just kind of a joyful feeling. You feel like you should wait for some angel to walk out from the trees with a watering can. It was just a fabulous area. I never imagined so many calypso orchids growing in one place!"

Although this was slightly in advance of the iris bloom, the Monument Peak area is famous for wild flowers. Claude continues, "We went back later on with Dave Silverberg, and we did find acres and acres of various different-colored *tenax*. And we found a hybrid in there that Silverberg just couldn't get over. He was just shook up over finding a hybrid in there."

Detroit Lake, close to Monument Peak, was also cased as another good iris locale. "We also found a lot of iris growing up around Detroit Dam and Lake. Last year I went up to a lake up there fishing, and saw quite a lot of them on both sides of the road."

Well, it certainly sounds as if there will be plenty to see. The Derr's own gar-

den, recently cleared from an undergrowth of salal and iris, both native to the area, should also be on the tour. The itinerary is not definitely fixed, but it looks as though the location will be principally in northern Oregon.



Iris tenax

Photograph by the Derrs
of a clump growing in their garden.

Please write to Claude and Joanne Derr, 36488 SE Log La Barre, Estacada, OR 97023, to indicate your interest in participating, and you will receive particulars when the plans are finalized.

A NEW STATUS FOR IRIS THOMPSONII?

Roy Davidson has sent us a clipping from an article entitled "An Investigation into the Status of *Iris thompsonii* (Iridaceae)", from *Madroño*, vol. 37, no. 2, 1990. The article, authored by Carol A. Wilson, Alfred Levinson, and Richard Petersen, Portland State University, concludes that *Iris thompsonii* is a valid species of the series *Californicae*. If this work is accepted we will have 12, rather than the 11 species previously accepted. The complete abstract, and excerpts from the article follow.

Abstract

Within *Iris* series *Californicae*, experimental hybrids between species are readily produced and natural hybrids have been reported as common. *Iris thompsonii* from the northwestern slopes of the Klamath Mountains has been de-

scribed as a natural hybrid between *I. douglasiana* and *I. innominata*. The purpose of this study was to investigate the relationships of these three species and in particular to determine the status of *I. thompsonii*. Methods used were discriminant and cluster analysis of morphological characters and a chemotaxonomic analysis of flavonoid pigments using thin layer chromatography. The thirteen populations studied were found to represent three species: *I. douglasiana*, *I. innominata*, and *I. thompsonii*. This study does not support the current taxonomy for *I. thompsonii* that places this taxon within *I. innominata* as a color form, or occasional hybrid between *I. innominata* and *I. douglasiana*.

.....Although the potential for hybridization has been demonstrated by earlier

studies, no evidence of recent hybridization was found.Differences were found in phenology, with *I. thompsonii* populations blooming generally in April and May, *I. innominata* blooming in late May and June, and *I. douglasiana* blooming in June and July.

In summary, this study found that three species are present within the study area: *I. douglasiana*, *I. innominata*, and *I. thompsonii*. Of these three species, the yellow-flowered *I. innominata* is the most homogeneous species and is limited in distribution. Purple-flowered *I. douglasiana* and *I. thompsonii* are more variable, both in flower color and other characters. Although neither of these would be considered a widespread species, both have larger distributions than *I. innominata*. The larger overall size and greater number of flowers per inflorescence easily distinguishes *I. douglasiana* from *I. innominata* and *I. thompsonii*. The purple flowers and longer perianth tube, bracts, and perianth parts distinguish *I. thompsonii* from *I. innominata*. Differences in interspecific variation were not demonstrated. Numerical data indicate that *I. douglasiana* and *I. thompsonii* are more closely allied than *I. innominata* is to either of the two species. However, flavonoid data argue for a closer relationship between *I. innominata* and *I. thompsonii*. Although clearly *I. thompsonii* should not be considered a color variant of *I. innominata*, or an occasionally occurring hybrid between *I. douglasiana* and *I. innom-*

inata, the origin of the species is more difficult to determine. The morphological and flavonoid data do not support the currently accepted hypothesis of a recent hybrid origin for the species, although speciation following a hybrid event is a possibility.



Iris thompsonii near Gasquet

The origin of *I. thompsonii* may be resolved with further studies involving different techniques and study of other members within the series.

EXPEDITION 2, 1990

Expedition 2, the second SPCNI-sponsored field trip to see native irises in the wild, was held the last weekend of April, this year in California. Gigi Hall made the arrangements, and the Lawyers planned the route with the help and advice of Wayne Roderick for the first day of the trip and Roger Raiche for the second day.

Although there were fewer participants this year because of the many conflicting botanical events at this time of the year, we were again privileged to have Dora Sparrow from New Zealand who come over to join us, and Dick Kiyomoto, from Connecticut, who also traveled many miles to be with us. Claude and Joanne Derr arrived from Oregon, laden with native iris flowers of many sizes, colors, and

shapes which they had picked along their route to show us. We missed seeing Dick Richard's wife, Marty, who accompanied him last year, but it was a pleasure to meet his mother, Clarice. We were familiar with her name, since the Pacific Coast native iris cultivar, CLARICE RICHARDS, is named after her. We enjoyed the company of Nadia Meigs, who came with us for the first time.

Headquartered at the Flamingo Resort Hotel in Santa Rosa, the 20 members who attended were treated to bright sunny weather with near ideal temperatures, and flowers at or near peak bloom. Transportation was by bus, the first day to Lake County, and the second to western Sonoma County, with a farewell dinner at Occiden-

tal. This year's botanist was Marian Reeve; and her husband, Roger, also a botanist, shared the responsibility and enthusiasm for the trip.

The bus left Santa Rosa Saturday morning heading northeast to the first stop in the hills just east of Petrified Forest, on Petrified Forest road. This is the type location of *iris fernaldii*, and they were quite easily spotted at almost any stop along the highway. They were past peak when we saw them, but we were especially pleased to see the creamy yellow flowers at all, since they usually bloom two weeks to a month earlier than the other species we would be seeing. And on the banks beside them, *Calochortus amabilis*, the fairy lantern, were blooming in profusion, and their nodding bright yellow bells were the stars of that location.

seen where Red Mill Road dead ends at Highway 175. And, in addition, we were treated to a beautiful little patch of dwarf

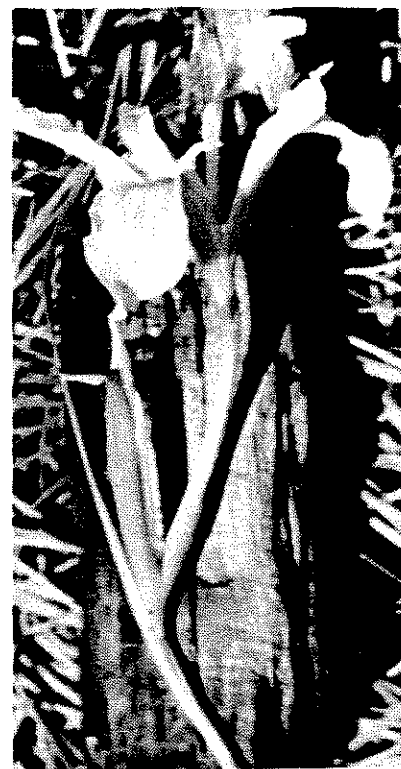


Photographing mimulus



Iris fernaldii, Petrified Forest Road.
Our first iris of Expedition 1990

From there we took highway 29 north to Lower Lake and then west to Red Mill Road, with one stop at the summit at Robert Louis Stevenson State Park. Our stop on Red Mill Road was to see violet-colored *I. macrosiphon*, shorter and daintier than the *I. fernaldii*. More *macrosiphon* were



Iris macrosiphon,
showing long perianth
tube

mimulus,- tiny, deep-rose-pink flowers with just a touch of black in the center to accent the yellow-orange stamens. And even though there was an endless sampling of admired *macrosiphon* in the area, everyone was down on their knees taking pictures. Marion Reeve couldn't identify them with certainty, since there are many similar mimulus described. We had never seen them in that color range before and were enchanted.

We then drove to Bottle Rock Road, aptly named because it is built along a massive outcropping of obsidian rock. Here were more *macrosiphons*, with many color variants in shades of lavender

to purple. The many dark purple types, some with prominent white signals, seemed especially appropriate to the ob-

able, when many of us even have difficulties in our well-prepared mix of loam and organic supplements.



We left that humbling spot for our lunch stop in a gently rolling area of pines, well carpeted with pine needles for our comfort. Clumps of *macrosiphon* were profuse, their flowers stretching to peek over the thick mulch of pine needles. Our group scattered widely after lunch,

Above: *Iris macrosiphon* plant growing in gravel roadbed and, right, picture of the plant.

sidian scree backdrop. One beautiful little plant was greatly admired and pictured for its courage in maintaining itself in a gravel roadbed where tracks of large logging equipment could be seen everywhere. How it could survive was remark-



One brave little iris.

photographing the little beauties on both sides of the road in open and in woodsy terrain. They were in evidence as far as the eye could see.

This delightful lunch spot was at the intersection of Harrington Flat Road, so we took that route past Boggs Lake Nature Conservancy Preserve. Boggs Lake covers several acres, but is a lake in name only, and in the summer time is almost dry. It is covered with a thicket of rushes and other bog plants, and is surrounded by a forest of oaks on rolling, rocky ground. Clumps of *I. macrosiphon* are scattered here and there throughout the Preserve.

We drove by the preserve and on about a mile to an area of yellow colored *macrosiphon*, which occurred as individuals rather than in generous clumps



Iris macrosiphon flower on Bottle Rock Road

like the group we had just visited. But they were of especially lovely form, with wide petals, some with prominent yellow-orange veining, as "garden-ready" as any native iris we had ever seen.



Yellow form of *Iris macrosiphon*
Harrington Flat Road

From there we took Sulphur Springs Road and Highway 175 back to Middletown. Here we took Highway 29 a short distance north to Butts Canyon Road where Marian Reeve knew of a wildflower meadow, usually beautiful at this time of year. It was too dry, however, for a good wildflower display this year; but we could see the possibilities of the area. There were even some *Lewisia* plants, very small and shriveled to conserve their strength for a more favorable year. We spent considerable time there taking photographs and enjoying the scenery.



Group exploring along a bank on
Harrington Flat Road.

The bus driver knew the way back to Santa Rosa on Butts Canyon Road which winds through the mountains to St.

Helena and Calistoga. This was a pretty, scenic drive, and we caught glimpses of little irises along the way.

After dinner that evening, Colin Rigby opened the display room at the County Fair building so that we could see the Santa Rosa Iris Society's iris show. We all enjoyed the show and appreciated the fact that they arranged to open the doors after hours for our benefit.

The next day, Sunday, April 29, we went directly west from Santa Rosa to Firestone and the Bohemian Highway through Occidental to Monte Rio. We had cased both routes the previous two days before the trip, and we remembered a particularly nice area for irises marked by what we thought was a unique power pole. We stopped the bus at our marker, but could find no irises. We still don't know what happened. Maybe there were two identically "unique" poles. Maybe the gophers got the irises.

We went on from there to the Cazadero Highway, and just beyond Cazadero, we turned right on King Ridge Road. This area had been highly recommended to us



Iris macrosiphon on King Ridge Road

by Roger Raiche who is in charge of the California section of the U. C. Botanical Garden. Quoting Roger: "When you leave the Fort Ross Road onto King Ridge, you start climbing to the top of the ridge. About five miles north of Cazadero you reach open grassland with lots of doug firs and tanbark woods encroaching where there are just marvelous clumps of *Iris macrosiphon*. From there the road goes on to the north slopes where there is

Oregon oak and black oak, and you start to see *Iris purdyi*. When you come out of the woods again, you are back into *macrosiphon*, but here you start getting into a lot of hybrids. Somewhere in the middle of the ridge area there is a bank where every clump is a different color. It is very pretty."



Iris macrosiphon
on a bank above King Ridge Road

What Roger didn't tell us was that the view from the ridge is absolutely spectacular. The road is aptly named, for in places it literally straddles the ridge, with



Lunch stop, second day on Tin Barn Road

large deep canyons on either side. The road is paved, but narrow, and our bus

driver had a difficult time with some of the tortuous curves, finding it necessary to back up and maneuver a bit to accomplish the turns. We were glad that we encountered no other cars at all on King Ridge Road!

We found the bank of *macrosiphon* hybrids described, and also another steep bank farther along on the opposite side of the road where the variation in color and form were unbelievable. Roger was right about the fine hybrids with flowers in all shades of violet and blue-violet, and in varied patterns.



Pure *Iris purdyi*

On Tin Barn Road, shortly before we reached a spectacular Buddhist monastery with gleaming domes shining in the sun, we found a nice grassy lunch spot at the edge of the road surrounded by woods with numerous scattered clumps of *Iris purdyi*. These pure examples of the species were one of the highlights of the day. They were taller than the *macrosiphon* we had been seeing, and their flowers were elegant and large, with a substance to their petal texture unusual in native iris. They were removed far enough from the *macrosiphon* to the east, and the *douglasiana* farther west, so that they were true to type, - a uni-

form pale, cream, with slim but distinct yellow veining, and horizontal standards

resulting in a flatter profile than other native iris.



purdyi-macrosiphon hybrid
Tin Barn Road

From there we went down to the coast, seeing increasing numbers of *Iris douglasiana* along the way. On the Coast Highway we visited Salt Point State Park where we saw many clones of *douglasiana*, all windswept from the constant offshore breeze. And we basked in the sun on cliffs along the ocean, admiring succulents and other plants growing there, as well as views of the shore line.



Iris douglasiana near the coast

We made another stop along the coast and only the most dedicated among us fought the cold wind to take pictures of the colorful iris huddled down among the taller coarse grass. Then, several miles

down the coast we turned east onto Coleman Valley Road. The top of the hill is a famous location where *douglasianas* are most frequently photographed because, in addition to seeing huge stretches of iris in the foreground, the coastline and vast ocean beyond complete a breathtaking vista. When the bus drove up to park at this site we were both amused, and a little embarrassed, to innocently peer down from our elevated position into the only other vehicle, to find a romantically entangled couple who were obviously not up there just to admire the view. Although our group did take advantage of the view, few of our number emerged from the bus for two reasons. First, the property owners drove up to warn us not to trespass and startle their sheep, and secondly, the offshore "breeze" was so strong that it was near impossible to stand upright. Bucking the wind, a few of us found a fairly large patch of white *douglasiana* on the downhill side of the hill. They were the last iris we would walk through on Expedition 2, 1990.



Thick stand of *Iris douglasiana*
on the hills, just above the Pacific Ocean.

We had intended to make a final stop at Western Hills Nursery on our way back, but tarried too long at iris haunts along the way. We drove across the hills where Coleman Valley Road dips down into the canyon, past the nursery, to the little village of Occidental.

We stopped at Occidental for dinner at Negri's, one of the large Italian restaurants for which the town is famous. It was time for a cool drink and a more-than-you-can-eat Italian dinner before returning again to Santa Rosa, "good byes," and "See you next years."

SOIL SAMPLES GATHERED AT EXPEDITION 2, 1990, STOPS

When we saw the little *I. macrosiphon* plant growing on bare, compacted soil in the middle of a gravel roadway off Bottle Rock Road, it made us wonder how it could tolerate what seemed to us to be a totally unsuitable growing medium. After some discussion, we decided that it would be a good idea to collect soil from this and other sites where PCI's were native in California and in Oregon to see whether our conception of a proper soil mix for them agreed with their own, in nature.

Gene and Joanne Loop offered to take over the California portion of this project, since they had already planned to retrace our route and collect seed for distribution. It was our intention to collect soil samples in Oregon at locations where the 1989 Expedition had stopped. The Loops carried out their portion of the plan, whereas the Lawyers have not yet done so. Although we hope to have a more comprehensive study of these soil types in the future, we decided to summarize some of the data the Loops obtained from soil they collected after the Expedition this year.

In general, they found that all soils sampled were on the acid side, ranging from pH 5.2 to 6.7. Also, the proportion of gravel to soil, (the portion retained above a 1/8th-inch screen), averaged 40 percent gravel to 60 percent soil. This confirmed some of our preconceived notions of PCI requirements: acid soil and good drainage.

Gene and Joanne collected soil by brushing off surface debris and digging samples about 6 inches wide by 4 inches deep from one to five representative locations at each of eight stops made on our trip. Each sample was weighed, and sifted through four screens graduated in mesh sizes: 1/2, 1/4, 1/8, and 1/16 inch. Each fraction was weighed so that it could be expressed as a percent of the total. The amount which sifted through the 1/16th-inch screen was used to accurately measure the pH, and remains available for determining soil type, i.e.: clay, loam, sand, and transitionals, if that should seem to be of interest in the future.

The sample having the most soil, (89.6%), and the least gravel, (10.4%), was gathered at the site of our first stop on King Ridge Road, although a sample gathered a little farther north was close to average. The two samples with the least amount of soil, (21%), were found near a

small *I. macrosiphon* plant in a gravel roadbed off Bottle Rock Road, if not the same little plant pictured in the previous article, at least one in the same dire circumstances.

At other Bottle Rock Road locations, the percentage of gravel ranged from 31.7 to 79.8, averaging 57 percent, and the pH from 6.2 to 6.5. In the compacted roadbed where our stoic iris was admired, but where no iris plants were growing, there was a relatively lower percentage of gravel, 31.7, with a pH of 6.2. Another sample taken from a packed roadbed nearby was 79.8 percent gravel with a pH of 6.4. And, under a pine tree, where the soil was not compacted, there was 57.7 percent gravel, and the pH was 6.5.

Although differences in acidity between samples were not excessive, they were accurate and reproducible, showing that small but real fluctuations occur from place to place in the same vicinity and general environment.

Another interesting observation Gene made at this site was the flexibility of the foliage under the very dry conditions existing in mid-September when he and Joanne went back to collect additional soil samples. The iris leaves were limp and pliable to the touch. The Loops deliberately drove over one such plant. It appeared to be undamaged by the pressure when in that condition, preserving its energy and the space in its cells for a fill-up when the rains come.

Gene also noted that although he had to use a strong tool in order to penetrate the soil in the roadbed areas, after he penetrated 1 to 1 1/2 inches or so, the soil underneath was loose enough to be easily removed with a trowel.

At our lunch location on Harrington Flat Road, gravel was not significant, measuring 14 percent under the pines and 9 percent under the oaks. The pH was 6.2 in the pine area and 6.4 under the oaks.

On King Ridge Road, traversed on the second day of our trip, the pH was 5.2 and 5.8 at the south and middle sections of the ridge respectively, substantially lower than any of the pH readings from the Lake County locations. Our soils science expert, David Williams, says that this is probably due to the heavier rainfall amounts and the leaching of calcium experienced near the coast.

PCI'S? NO PROBLEM!

Larry E. Moss

The Spring 1990 issue of the ALMANAC was interesting - attempting to grow PCI in a hostile climate is reminiscent of Houdini training to escape from a barrel before it goes over the falls. And the message was clear: if one is enamored of PCI, then one is blessed to live in the temperate and moist north coast of California.

For years I had wanted to live in California's north coast for the rich redwood forests in the State and National Parks, the open space, and the striking coastline. And in 1978 I seized the opportunity and rented a house overlooking Trinidad Bay and Indian Beach on the verge of the small town of Trinidad, approximately twenty-five miles north of Eureka. It was a lovely spot, partly because of the native *I. douglasiana* which bloomed for a few weeks in the late spring on the gentle slope in front of my house. Most of the flowers were lavender, in contrast to the darker shades I had often seen on the coast north of San Francisco Bay, and they were beautifully etched with darker veins and marked with gold and white signals.

In October, 1980, Karen and I purchased a house near Big Lagoon, which is seven miles north of Trinidad. I wanted native iris in the garden, so I carefully searched for them on our property. Fifteen years earlier, the one-half acre had been cleared of Sitka spruce. There were Monterey pines and young alders in addition to the four-year-old house but, to my surprise, iris were nowhere to be seen. I decided to transplant a few of the rhizomes from the full clumps in Trinidad. In my ignorance I treated the wiry rhizomes just as if they were tall bearded iris. I clipped the leaves and roots to a length of four inches, let them dry in the sun for a day or two, planted them and watered them once, and then let the rains take over. A certain prescription for disaster? Usually, perhaps, but not in this instance.

After the normal winter rains, a majority of the mistreated rhizomes pushed up fresh leaves in the spring and a few plants flowered. Within a few years, these naturalized plants multiplied into a six foot by eight foot clump and bore hundreds of blossoms each spring.

During those years I planted a semi-circle of rhododendrons near the *I. douglasiana* and developed some raised beds of lilies on the excavated slope left by the builder when he leveled the house site. Otherwise I let the pines and small alders grow and became the owner of a rapidly growing tangle of berry vines, salal, wild grass, and bracken. When I began to develop the rest of the garden in 1984-1985, much to my surprise (but probably not to you who know PCI) I found iris in unexpected places. Seed from my transplanted rhizomes had begun to colonize the neighborhood. The young plants particularly, thrived in partially shaded areas of pine needle duff and decaying alder leaves. By 1986-1987, a substantial portion of our half acre was aglow with *I. douglasiana* blossoms during the late spring. Some plants near the lily beds received summer water and bloomed on into July and August. I began digging and dividing the larger clumps and planting them where no seedlings had developed. Now, *I. douglasiana* seedlings are among the most common weeds in our perennial beds.

Most of the flowers are similar to those of the Trinidad plants, - various lavender shades with darker veins, gold and white signals, and a faint turquoise flush on the tips of the falls. But some of the flowers are dark lavender-purple, and some are creamy. One clump, which has been carefully divided and transplanted, sports a flower I haven't seen elsewhere. The flower is a rich lavender with hints of rose. The signal is pronounced gold and white, while the styles are dazzling white. The plant is a typical robust *I. douglasiana*, with branched stems; it materialized before PCI's, other than *I. douglasiana*, were in the garden.

I. douglasiana is definitely a weed in this climate. I can transplant them at any time as long as they are watered during dry spells. They tenaciously cling to life. Last fall I dug and transplanted ten or fifteen large clumps and, in the manner of a tired gardener, threw a couple of three or four rhizome divisions in the shade under a Sitka spruce. I forgot about the iris and there they lay until the following March. When I noticed them, they were alive and sending out new white roots and new leaves into the air! I

planted them; they are growing well, and one of the small clumps has a couple of flower shoots. And this winter we had only one and a half inches of rain in November and two in December.

During the early 1980's I saw some nice PCI hybrids, but not until 1987 did I see some of Joe Ghio's marvelous cultivars such as BIG WHEEL, SIMPLY WILD, BIG MONEY, and SANTA CRUZ BEACH. I found the full-form, richly-colored flowers irresistible, and have been a yearly customer of Bay View Gardens ever since. I now have fifty hybrids in my garden. They grow and bloom very well, although they don't multiply as rapidly as the native iris. I water the hybrids occasionally during the summer and, of course, during the rare spring dry spell.

This region of the north coast is the ecotone between coastal California and the Pacific Northwest. Our house site is 150 feet above and 500 feet from the ocean. We are on an old coastal shelf, so our soil is sand that has been modified by many, many years of leaf and needle mulch. The average rainfall is perhaps fifty-five inches per year with most precipitation falling during November through March. We usually have some rain in October, April, and May with a smattering in the other months in the summer season. The soil is acid, not very rich, and the drainage is good. I usually plant PCI, particularly douglasiana, in unmodified soil and mulch around the plants, although not over the rhizomes, with pine needles. I have added some humus to the planting hole for some of the hybrids, and do lightly fertilize some of the plants in the spring. Our winter lows usually reach 30°F, although the past two winters have seen 22° or 23°F. Summer days are moderate with an occasional "hot day" of 75° or 80°F. Usually we have a three or four month rainless period in

the summer, although the fog comes and goes. I attempt to give the plants some shade during part of the day, although some *I. douglasiana* are in full sun and always flower heavily.

Problems with PCI have been almost non-existent. After ten years, some of the original transplants have died out. I think the cause was competition for space and nutrients among all those crowded rhizomes. LIGHTHOUSE POINT, a lovely dark maroon Ghio hybrid with gold styles, hasn't performed well. Growth has been weak and flowering has been erratic-anytime from November to April. I've dug up the plant and potted it in a humus-rich soil to see if the plant improves. And heavy, wind-driven rain can beat down the flowers, native and hybrids alike.

What is next? I want to obtain some of the blue cultivars of Lewis Lawyer such as SIERRA BUTTERFLIES and SIERRA DELL. The beautiful, yellow *I. innominata* marked with red which was featured in the spring 1989 ALMANAC would look striking in the sunnier parts of this woodland garden. So I'll be a customer for the appropriate seed from this fall's seed sale. And I've noticed seedlings in the needle mulch at the base of some of the hybrids such as BIG WHEEL. I'll pot them, grow them to flowering stage, and determine if I have BIG WHEEL or some new hybrids of unknown parentage.

PCI's are among the most satisfying plants one can grow in this coastal climate; they are vigorous, floriferous, and non-demanding if they have acid, sharply-draining soil. If the flowers rank among your favorites and you live in Illinois or Connecticut, perhaps a vacation to San Francisco, Point Reyes National Seashore, and points north along the California coast, would be more satisfying than attempting to raise them yourself.

FOUR SOUTHERN CALIFORNIA PCI GARDENS

We visited Southern California this spring in what should have been almost exclusively, tall bearded iris season; but the PCI's, which had overslept this year, awakened just just in time to bloom for us as well.

After the joint Region 14 and 15 garden tours and meetings, we took time to visit four gardens in which PCI's were

prominent elements: Duncan Eader's garden, the Rancho Santa Ana Botanic Garden in Claremont, Roy and Isabelle Fetterman's Pasadena garden, and the Santa Barbara Botanic Garden.

The PCI's in Duncan Eader's garden were healthy and thriving. He was growing ORCHID SPRITE, a variety we thought to be particularly adapted to the

Southland. We had seen it elsewhere on this visit. Here, however, it was especially well-grown and floriferous, with clean, bright leaves setting off the flowers.



ORCHID SPRITE in Duncan Eader's garden

Duncan's own seedlings were handsome. We particularly liked one with large, lavender-pink flowers with darker pink veining, and another pinky-rose selection with sunburst veining partially underlaid with a faint yellow flush. None of these were the "modern" type with overlapping petals, but they were equally attractive as garden subjects.



Sunburst veining on Eader's seedling

It is gratifying to see that hybridizing of PCI's adapted to the area by Duncan

Eader and others is once again taking place, since most varieties developed elsewhere have not been successful here. To bear this out, in a recent survey of six Southland growers, two varieties developed in the area were judged as favorite varieties. CANYON SNOW, selected by Dara Emery was the hands-down winner for best PCI, with Dolores Denney's, CANYON ORCHID coming in second. We have heard reports, however, that Ben Hager's varieties, developed in an area with hot summers, are performing well in Southern California and are a distinct improvement over PCI's developed in the cool, Northern California areas.

We went to see the garden of Dr. and Mrs. Roy Fetterman in Pasadena, which was open to the public on the weekend we were there for the benefit of the Girl Scouts. The little Brownie girls, in uniforms and white gloves, were stationed at key points around the garden to point the way. Native plants were the principal garden subjects and the dominant native iris was BLUE SAGE, (Nies '47), a blue-purple variety which was creeping everywhere and filling the gaps between decorative rocks, other plants, and stepping stones. It was very floriferous and effective in the garden, and we noted that this well-adapted variety was the product of a Southern California iris breeder.



Iris douglasiana growing in Rancho Santa Ana Botanic Garden

We never fail to visit the Rancho Santa Ana Botanic Garden when we visit Southern California, and this year we were there for peak bloom. We saw no introduced varieties, and after searching the grounds, we found only two isolated

clumps of unlabeled *munzii*-derived seedlings. The larger colony was what remained of SIERRA SAPPHIRE, but few of the seedlings resembled it. The present emphasis at this native plant garden is educating the public on the appreciation and identification of native plants; and this function is being actively pursued with the construction of a huge demonstration area at the location where the Lenz *munzii* beds used to be.

The native iris growing here appear to be mostly *Iris douglasiana*, and practically



Iris douglasiana, Santa Barbara Botanic Garden

all lavender and purple shades. They have naturalized among the oaks, ceanothus, and other native shrubs and trees, and are especially striking because of their profusion. We admired the colonies

surrounding a large pond and in the company of California poppies.



Iris douglasiana among the rocks.
Santa Barbara Botanic Garden

Our last stop on the way home was the Santa Barbara Botanic Garden where the quality and variety of the native iris far surpassed that of Claremont's collection. Although here, too, the iris were practically all *douglasiana*, the selections were varied in color, pattern, and shape, and the varied terrain of the garden site, (hills, open meadow areas, and shady, wooded canyons), set them off to better advantage. CANYON SNOW was much in evidence and it's influence in the natural hybridization obvious. We were very impressed with the beauty of the garden and the iris, and spent much time trying to preserve the vision with our cameras.

NEWS OF AND FROM MEMBERS

William K. Ferrell

Bill and his associate Mark Harmon, of the Department of Forest Science, Oregon State University, have had a paper published in *Science*, February 9, 1990. This study was made to see whether substitution of young-growth forests for old-growth forests would reduce the amount of carbon in the atmosphere, as claimed by several sources cited in the paper. Data on the behavior of Douglas fir and hemlocks on the west side of the Cascades in Oregon and Washington was analyzed

for this study. Conclusions were that, under current harvesting and use conditions, the conversion of old-growth forests to younger forests will continue to add to, rather than to decrease, the carbon dioxide content of the atmosphere. The key to this conclusion is the greater carbon storage capacity of old-growth trees over time, far outweighing the increased rate of growth characteristic of younger trees. The article states in it's summary section, "During simulated timber harvest, on-site carbon storage is reduced consid-

erably and does not approach old-growth storage capacity for at least 200 years."

George Gessert

George Gessert's contribution springs from an artistic and environmental, rather than a scientific approach. George, who is associated with the Graphic Arts Department of the University of Oregon at Eugene, installed an exhibit at their Museum of Art this spring consisting of many of his potted PCI seedlings in bloom. These demonstrate the variation among seedlings, and the criteria he would use in selecting those which he would retain and those he would discard. A handsome brochure with color photographs of Pacific Coast native iris accompanied the exhibit, in which his philosophy is expressed. It is entitled: *Iris Selection: Painting with DNA*.

He expresses the opinion that hybridizers of plants of all kinds, and even of animals, have done so in order to create their conception of perfection for their subjects. In the case of ornamentals, these hybrids usually differ markedly from their wild parents, and urban dwellers who only see plants in gardens, lack the opportunity to know the originals. George feels that domesticated flowers are tending to look much alike because of the efforts of hybridizers. Roses, camelias, petunias, and peonies, for example, are much alike, all ruffled, double, and spherical.

George's personal goal in "painting with DNA" is to hybridize the native iris which he has come to know and appreciate through intimate association with them on their own turf. He says, "I prefer to stay fairly close to wild types in my breeding. What I change is primarily color and pattern. I have no particular desire to dominate these plants, to impose some grand vision upon them. What I want is to interact with them and see what happens. Sometimes I attempt to improve substance. Large-sized flowers may attract my attention, but size is a secondary consideration. I destroy plants that have conspicuous ruffling."

Another aim of Gessert's breeding is the maintenance of their ability to thrive in the wild. To test this character, he plants a portion of the seed of his hybrids in wilderness, clear-cut, or other areas favorable to their growth outside of his urban garden, to be sure they maintain their survival ability.

[Ed note] We are in agreement with George's aims, in fact we contributed to the financing of his University art exhibit, but I can't condone his practice of scattering seed from his selections into the wilds of Oregon. Bees don't select, they don't bring other species in from distant areas, they don't use hybrids from other breeders, in fact they don't even throw away plants that have a conspicuous ruffling. In his brochure of the University exhibit, he pictures "Iris seed planting site No. 117. Clearcut, Douglas County, Oregon". George has a right to his own opinion, but I think he should keep his selected seed in his own or other garden plots. *Lewis*

Donald and Frances Olson.

Don and Fran are new members from Camp Baldy, California, the old stamping ground of Richard Richards. Fran sent us the picture below of their garden in the San Antonio Canyon.



Iris douglasiana among the rocks
in the Olson garden

Robert Ward

Bob Ward, *Almanac* Representative for the Central States, sent in the following information about his "Great Season" in Little Rock, Arkansas.

The 1990 season started after the coldest winter in ten years, with temperatures below zero and remaining for about two weeks in the single digits; - not one Pacifica was lost, but several, growing in more exposed places in the garden, did have plastic covers.

I mention all this because I have 3 plants of *I. munzii* hybrids growing thickly with other Pacificas sent by the

Lawyers, and these bloomed in the 1990 season. We need other people to grow this iris from seed to see how it will grow in colder areas of the country. Several are growing in Northumberland, Pennsylvania at my sister's house; so we'll be able to check on these later.

The 1990 Pacifica season here in Little Rock began with 2.5 months of rain with CHIMES celebrating the season with 24 flower stalks, this clump, (received from Dick Richards in 1984), is 18 inches across the center. The first flowers opened on March 29th. Next came *I. fernaldii*, *bracteata*, *tenax*, and *innominata* together. Later came *I. douglasiana*, *I. tenax* subsp. *klamathensis*, *I. tenax-alba* from seed, HONTA YO (5 flower stalks), GARDEN DELIGHT (3 flower stalks), *I. purdyi*, Jean

Witt's doug-munzii hybrids, DAVID MARK WARD (8 flower stalks), and many more.

In this year was the best display of blooms on these irises. It will now be over a dozen years of testing and growing (to find the best places in the garden in which to grow them), and now that part of my work is over, and I will enjoy reading and some other projects of interest.

Most of the above bloomed during the copious amounts of rain which was followed by, (you guessed it), the suckers and chewers, and this followed by sowbugs, rust, bacteria invasions, and now as we enter the summer months, heat and humidity when most of my troubles begin. So now the problems is: when and how much water, and does one fertilize these irises during the hot summer months?

SEED LIST, 1990

Louis Fry

Seeds are available on a first-come, first served basis. Orders will be held until three weeks after mailing of the ALMANAC, so that quantities per packet may be determined more equitably. All seeds are priced at \$1.00 for the first packet, and .50 for each additional packet to cover the costs of packaging and mailing. Please make all checks payable to SPCNI. Address requests to Louis Fry, Seed Distribution Chairman, 4 Renata Court, Novato, CA 94947. Overseas orders: if you are paying by UPU coupons, an appropriate guide is two coupons for one or two packets, four coupons for up to ten packets, six coupons for any larger orders (shipment is by air). Special requests: seeds may be received too late to be included in the list. If you are seeking a variety not listed here, please inquire, but do not send payment for such items. Any which become available will be provided as extras with your order. Most seeds are from the 1990 bloom season, some are a year or two older. Please note that the seed received during the past week is neither in alphabetical nor numerical order, but has been added to the end of the appropriate category.

COLLECTED SPECIES SEED

Order # Description

90001 *I. bracteata*, O'Brien, OR; pale gold
90002 *I. chrysophylla*, Camas Summit, OR; cream-white

- 90003 *I. douglasiana*, near Coquille, OR; white
90004 *I. douglasiana*, Pt. Arena, CA; purple
90005 *I. fernaldii*, by Petrified Forest, CA; variable cream, some with violet veining
90006 *I. innominata*, China Flat, OR; yellow-orange
90007 *I. innominata*, between Agness & Coquille/Rogue River divide; pale-yellow
90008 *I. innominata*, Cow Creek, OR; yellow-orange
90009 *I. macrosiphon*, Lake Co., CA; purple
90010 *I. macrosiphon*, Lake Co., CA; yellow
90011 *I. macrosiphon*, Marin Co., CA; purple
90012 *I. macrosiphon*, Sonoma Co., CA; purple
90013 *I. macrosiphon x purdyi* natural hybrids, Sonoma Co., CA; mixed
90014 *I. munzii*, Coffee Camp, CA; variable lavender-violet
90015 *I. purdyi*, SW Mendocino Co., CA; probably cream
90016 *I. purdyi x macrosiphon* natural hybrids, south of Richardson Grove, CA; mixed
90017 *I. tenax*, Clackamas Co., OR
90018 *I. tenax*, Botkin Creek, Benton Co., OR
90019 *I. tenax*, Coburg Ridge, OR; pale & yellow blends
90020 *I. tenax*, Greasy Creek, Benton Co., OR
90021 *I. tenax*, Wente Valley, OR; purple

- 90022 *I. thompsonii*, Gasquet, CA; variable
 90028 *I. innominata*, Near Agness, OR;
 probably orchid color
 90029 *I. tenax*, Coburg Ridge, OR; pale
 lavender with cream
 90030 *I. tenax*, Silver Star Mt., SW WA;
 3000 feet elevation

SPECIES SEED, O.P.*, GARDENS

- 90023 Mixed *douglasianas*, Clackamas Co.,
 OR
 90024 *I. douglasiana*, Santa Cruz Mtns.,
 grown for 28 years in Colorado
 90025 *I. douglasiana*, U.C. Botanic Garden,
 from northern CA counties: A;
 Alameda, B: Humbolt, C: Marin,
 D: San Mateo, E: San Francisco, F:
 Sonoma (specify A - F)
 90031 *I. tenax* x *douglasiana* hybrids,
 Clackamas Co., OR

SPECIES, OTHER SECTIONS, O.P.

- | <u>Order #</u> | <u>Description</u> |
|----------------|--|
| 90026 | <i>I. tenuis</i> , Clackamas Co., OR; white
with gold signal |
| 90027 | <i>I. longipetala</i> , Mendocino Co.
border, CA |
| 90028 | Forty-chromosome Siberian hy-
brids: L. Fry; several species O.P.
Free to good homes. Please
specify which species. |
| 90032 | Forty-chromosome Siberian hy-
brids, J. Splane, OR |

GARDEN HYBRIDS, O. P.

[Donated by the Lawyers unless otherwise
 specified]

- 90101 Abell #1, pale blue *munzii* type
 90102 AMIGUITA (Nies '49)
 90103 AMI ROYALE (Luherson '57)
 90104 AUGIE (Phillips '74)
 90105 BANBURY PRINCESS (Brummitt '74)
 90106 CALIFIA (Ghio '70)
 90107 CANYON ORCHID (Dodo Denny '85)
 90108 ENDLESS (GHIO '85)
 90109 GARDEN DELIGHT (Stambach '74)
 90110 HALF TIME, (Ghio '79)
 90111 HARLAND HAND, (Lennette '89)
 90112 LATIN BLOOD, (Ghio '87)
 90113 LEMONADE SPRINGS (*innominata*
 selection), (Davidson, NR)
 90114 Mixed garden hybrids and species,
 several sources
 90115 Mixed garden hybrids from
 Portable Acres
 90116 Mixed miniature garden hybrids
 90117 Mixed normal height hybrids
 90118 Mixed gar. hybrids from Dora
 Sparrow, Christchurch, N.Z.

- 90119 MOONLAD (*innominata* selection),
 (Davidson '72)
 90120 MORAGA (Ghio '87)
 90121 QUINTANA (Corlew '80)
 90122 ROARING CAMP (Ghio '85)
 90123 Seed from heat-tolerant types
 from Ben Hager, Stockton, CA
 90124 Seed from garden hybrids involv-
 ing recently collected "Valley
 Banner-type" irises from Lane,
 Douglas, and Coos Cos., OR;
 collected by George Gessert
 90125 SIERRA SAPPHIRE, *munzii* selection
 (Lenz '72)
 90126 SOLID CITIZEN, (Ghio '87)
 90127 TUNITAS (Ghio '86)
 90128 "Valley Banner type", *douglasiana*
 hybrid; Mendocino Co., CA; 20
 inch flower stalks
 90129 "Valley Banner type" from
 CANDY BANNER; 13" f. stalks
 90130 WESTERN QUEEN (Stambach '72)
 from John Weiler
 90131 WILD TIME (Ghio '87)
 90132 XP59C, Blue *munzii*-type, (a Lawyer
 seedling)
 90133 FOOTHILL BANNER, (Lawyer '90),
 14", (Valley Banner) x (Sierra
 Sapphire x Canyon Snow).

Species seed donors: Claude & Joanne
 Derr, Bill & Jeanne Ferrell, Bill Janssen,
 Gwen Kelaidis, Lewis & Adele Lawyer,
 Gene & Joanne Loop, Diana Reeck, Lorena
 Reid, Colin & Teressa Rigby, Jon Splane,
 Alan Taylor. Since some listings involve
 seed from several donors or several sites
 in a small vicinity, specific sources and
 locations are not given here. If these are
 truly important to you, please specify and
 your packets will be labeled accordingly.
 Some of the stops on the 1990 Spring
 Expedition are represented in seeds col-
 lected by the Loops.

Hybrid Seed donors: George Gessert,
 Ben Hager, Lewis & Adele Lawyer, Lorena
 Reid, Portable Acres (Colin & Teressa
 Rigby, Jean Erickson), Dora Sparrow,
 John Weiler. Many thanks to all and sin-
 cere apologies to any not credited.

* O.P. (Open-pollinated seed), i.e. Seed
 was harvested from the species or variety
 listed, but the pollen parent is unknown.
 In the case of open pollinated garden va-
 rieties, the pollen parent would be from a
 well-regarded hybrid variety. See the
 Check List for a description of the pod
 varieties listed.

SPCNI SEED GERMINATION UPDATE

Seeds offered in the Fall 1989 SPCNI seed exchange have germinated satisfactorily, the species at an average of 56 percent, and the open-pollinated hybrids at 59 percent germination. Even the white-flowered *douglasiana*, which had not germinated at all at the last reporting, eventually achieved 17 percent. This was the lowest germination within the species group, which ranged upward to 100 percent. The average of the open-pollinated hybrids was pulled down by two varieties, NATIVE MUSIC and SUGAR CANDY, which did not germinate. Without them, the group ranged from 33 to 100 percent and averaged 69 percent.

Open-pollinated seed from ENDLESS, TUNITAS, and VIOLET ELF all germinated a perfect 100 percent. Seed from SOLID

CITIZEN and CALIFIA was also excellent at 80 percent.

The condition of the seed when harvested may be a contributing factor. Garden-collected seed is more apt to be gathered at the proper time than wild-grown species seed. When you've driven many miles to collect it, you are not apt to leave the seed behind, even if it is a little on the green side.

Jean Peyrard, of France, reports that seed of PCN's he received in 1988 and 1989 have germinated, and these and seed from Joe Ghio have tolerated winter temperatures of -10° C (15° F) with no snow cover. In contrast, plants bought in October died during the winter, even though they were planted against a wall and were well mulched.

SPCNI TREASURER'S REPORT, 1989

	<u>Balance Jan 1, 1989</u>	<u>\$333.95</u>
<u>RECEIPTS</u>	Dues	1031.50
	Dues through AIS	254.00
	Sales of Cohen booklets	130.50
	Sales of Lenz booklets	388.50
	Sales - other publications *	165.00
	Sales of seed	352.00
	SPCNI Expedition 1	2024.06
	Miscellaneous **	307.00
	Interest on checking account	57.14
	 <u>Total annual receipts</u>	 <u>\$4709.70</u>
<u>DEBITS</u>	ALMANAC spring 1989	467.75
	ALMANAC fall, 1989	447.81
	SPCNI Expedition 1	1800.22
	Miscellaneous ***	381.66
	Secretary - Treasurer	169.54
	 <u>Total annual debits</u>	 <u>\$3266.98</u>
	 <u>BALANCE Dec 31, 1989</u>	 <u>\$1776.67</u>

* Includes Almanac back issues, Almanac Index, Check lists, etc.

** Includes \$70.00 refund for Mitchell medals and \$130.00 donations.

*** Includes \$342.40 for printing Lenz reprints.

Note: Dues received through AIS, \$254.00, includes a payment of \$103.00 from AIS which was due in July, 1989, but which was not received by SPCNI until April, 1990. I placed it in 1989 because realistically that was where it belonged. *Adele S. Lawyer, Treas.*

NEW MEMBERS AND ADDRESS CHANGES

<p>Region 20, Editor, 3455 Vallejo Court, Colorado Springs, CO 80918</p>	<p>Hayden, Dorothea P.O. Box 189 Laytonville CA 95454</p>	<p>Suman, Mrs. Rebecca P.O. Box 517 Orting, WA 98360</p>
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<p>Brewer, Roger 5739 S.W. Downsview Ct., Portland, OR 97221</p>	<p>Mansfield, Ann 659 Windmill Lane, Pleasanton, CA 94566</p>	<p>Zongker, Judy A. 929 Teresita Blvd, San Francisco, CA 94127</p>
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<p>Campbell, Susan Box 663 Kamuela, HI 96743</p>	<p>Owen, Angeline S. 5314 Est Clat. Fresno CA 93727</p>	<p>Mesilla Valley Iris Society, 6805 Raasaf Circle, Las Cruces, NM 88005</p>
<p>Carson, Louise 5037 NW 24th Place Oklahoma City OK 73127</p>	<p>Plotner, William E. P.O. Box 250, Molalla, OR 97038</p>	<p>Bobbink, Stephen R. 1816 11th Avenue W Seattle, WA 98119</p>
<p>Covey, Pamela M. N.E. 61 Harpoon Drive, Belfair, WA 98528</p>	<p>Potterton, Robert 'Kiwi', 14 Newboults Close, Caistor Lincoln England</p>	<p>Collins, Hec E. 6 Pyes Pa Road, R. D. 3, Tauranga, New Zealand</p>
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<p>Diether, Phillip A. 959 Blair Court, Palo Alto, CA 94303</p>	<p>Safonov, Dr. V. I. Haykn I, KB. 46 Sakalin Island U.S.S.R.</p>	<p>Pellett, Elizabeth A. R.R. 4, Malview Drive, C-21, Ganges, B.C. Canada VOS</p>
<p>Dunbar, Chuck P.O. Box 1738. Mendocino, CA 95460</p>	<p>Schwarz, Henry and Patricia 777 Moon Avenue, Los Angeles, CA 90065</p>	<p>Russell, James W. Box 236, West Memphis, AR 72303</p>
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<p>Handran, Steven 8415-218th Street SW, Edmonds, WA 98020</p>	<p>Smith, Roger L. 774 Rose Drive, Benicia, CA 94510</p>	<p>Wheaton, Kelly 1335 Inglewood Drive, St. Helena, CA, 94574</p>