

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

**SPRING, 1994
Volume XXII, Number 2**

TABLE OF CONTENTS

President's Message	3
From the Editor	3
Borer Update	4
Carol Wilson: PCI Species Expedition 1994	5
Attention Photographers	6
Pacific Coast Iris in Oregon	12
Species as Garden Plants	12
The Acres Are Portable	14
Letters	14
New Members and Address Changes	15
Treasurers Report	18
	19

PUBLICATIONS AVAILABLE FROM THE SPCNI TREASURER

Check List of Named PCI Cultivars

Lewis Lawyer, Editor: 48 pages. Lists and describes Pacific Coast native iris and named hybrids through 1990. \$5.00 postage paid.

Diseases of the Pacific Coast Iris

Lewis & Adele Lawyer: ALMANAC, Fall 1986. 22 pages, 9 photographs. \$3.50 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.

SEED AVAILABLE

Seed of species and garden hybrids is available for \$1.00 for the first packet and \$.50 for each additional packet from the Seed Distribution Chairmen listed in the column to the right.

EXECUTIVE COMMITTEE

President, *David Lennette*
1325 Court St., Alameda, CA 94501
(510) 521-7053
First Vice President, *Bob Ward*
54 Belmont Drive, Little Rock, AR 72204
(501) 664-0013
Second Vice President, *Eugene Loop*
518 Persimmon Road, Walnut Creek, CA 94598.
(510) 939-3418
Immediate Past President, *Claude Derr*
36488 Log La Barre, Estacada, OR 97023
(503) 630-4510
Secretary-Treasurer, *Adele Lawyer*
4333 Oak Hill Rd., Oakland, CA 94605
(510) 638-0658
Editor, *Lewis Lawyer*
4333 Oak Hill Rd., Oakland, CA 94605
(510) 638-0658

COMMITTEE CHAIRMEN

Seed Distribution, *Louis & Caroline Fry*
4 Renata Court, Novato, CA 94947
Slide Programs, *R.D. Kenitzer Jr.*
1765 Reservoir Road, Sequim, WA 98382
Expeditions, *Colin Rigby*,
18341 Paulson, SW, Rochester, WA 98579

ALMANAC REPRESENTATIVES

Washington & B. C., *Jean Witt*
16516-25th NE, Seattle, WA 98155
Oregon, *William K. Ferrell*
Post Box 207, Philomath, OR 97370
Northern California, *Eugene Loop*
518 Persimmon Road, Walnut Creek, CA 94598
Southern California, *Duncan Eader*
111 West Magna Vista, Arcadia, CA 91006
Central U.S., *Robert Ward*
54 Belmont Drive, Little Rock, AR 72204
Eastern U.S., *Richard Kiyomoto*
486 Skiff Street, North Haven, CT 06473

MEMBERSHIP & SUBSCRIPTIONS

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
Supporting Annual	6.00	
Life	50.00	65.00

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

I am writing with good news: Colin Rigby has accepted the responsibility of forming a new committee to plan and manage our future trips and Spring Expeditions. Colin, who will be chairman of the committee, is the former Chairman of SIGNA, (Species Iris Group of North America), and is familiar with much of the iris terrain in Northern California, where he has had his home in Penngrove for many years - known to some of you as *Portable Acres*. He and Teresa, (Mrs. Rigby), have recently relocated to Washington and will doubtless be exploring iris territory there in the near future.

The success of our Spring Expeditions has been, in large part, attributable to the efforts of Lewis and Adele Lawyer; the planning of these annual events has been a considerable responsibility for them during the past six years. As indicated by the increasing interest in these trips, it is time for broader participation by our membership if these Expeditions are to continue. Please think about locations for our future exploration, and contact Colin with your suggestions, as he wants to hear from our members. His address is 18341 Paulson SW, Rochester, WA 98579, and his telephone number is (206) 273-0946.

One possibility is to plan some additional, informal trips to locations where

iris species such as *Iris hartwegii* may bloom later in the season than the times scheduled for our previous (regular) Expeditions. If the trips are informal, no bus or catering would be required, and organizing them would be considerably less work. Participants would meet at a previously announced location, possibly do some car-pooling, and stay at a convenient motel for any additional socializing.

Another major method to introduce Pacific Coast Iris, both species and hybrids, to those not familiar with them is through slide programs. Our Slide Chairman, R.D. Kenitzer, needs to obtain slides for our collection, and is especially interested in slides of more recent PCN introductions, as well as slides from our annual expeditions. I hope you will promptly review your personal collections to see if there are a few slides, with identifying information, that you could duplicate and send in to help build our program collection. With your assistance, we can soon have a slide collection that will allow SPCNI to offer programs that are both educational and entertaining.



FROM THE EDITOR

The SPCNI Expeditions have given us an excellent opportunity to see how the Pacific Coast Irises grow in the wild. In 1991, we saw a few introduced cultivars growing in the Derr's garden. This year, for the first time, we spent only one day in their native habitats and a full day in private gardens where we saw few species but hundreds of contemporary man-made cultivars.

Of all the species we have seen in their native habitats, only *Iris tenax*, *Iris innominata*, and *Iris douglasiana* have exhibited an occasional flower and plant type which one could conceivably introduce "as is" and sell to someone other than a species buff. The Check List tells us that, until Duane Meek started using *I. tenax* in some of his crosses, 28 clones of *Iris tenax* had been collected and named. A few of these were registered but none intro-

duced. It had been used in only 6 named crosses, and only one of these was registered and introduced. On the other hand, to find 36 named cultivars involving *Iris innominata*, you only have to search through the alphabet from A to C. Of these, 32 are man-made hybrid clones mostly involving *Iris douglasiana* as the other parent. Twenty nine of these have been registered and introduced. Four were registered but not introduced. The others are collected clones.

Iris douglasiana, of course, is involved in some way with nearly all the named and introduced Pacificas. This includes several famous old names which were given to pure unaltered, collected wild specimens. The majority, however, and the most coveted, are the man-made hybrids incorporating parents which were carefully-selected by the hybridizer.

Iris fernaldii, which we saw on the 1990 Expedition, is also said to be in the background of a few named cultivars, but a search of the Check List could not confirm this. Another species, *Iris munzii*, is a very important component of a few cultivars, but, because of its limited Sierra foothill habitat, it has not yet been seen on our Expeditions.

Every indication is that a greater use of *Iris tenax* would help growers in cold winter areas. Why this hadn't occurred, however, probably rests in the nature of an important characteristic of *tenax* which helps make it resistant to cold. That character is its ability to go dormant during the winter months. This factor is acceptable when your garden is covered with snow, but it makes *tenax* an undesirable parent, especially in Southern California where most of the U.S. breeding started, and also in the rest of California where the breeding was later centered. It was inevitable that these hybridizers would choose the species most adaptable to their environment. It is also obvious that, considering the success of their endeavors, there is little incentive for them to go backward to pure species.

During the last couple of years, Duane Meek has introduced 5 new varieties which involve *I. tenax* coupled with some of the modern cultivars. We are growing all 5 in our garden, and they compete with

the best of the recent introductions. This is the type of breeding we need to expand. We can't just go out in the woods and search for a pretty *tenax*. More hybridizers are going to have to make some carefully-planned crosses which involve *Iris tenax* and contemporary named introductions. They don't have to limit their selections to plants having the most bubbled or ruffled flowers or with no space showing between the petals, but they must accept the fact that, after seeing the fabulous flowers now available, very few gardeners are going to buy plain old selected species.

This year's Expedition gave us a chance to see such a transition, - to go in a very short period of time from the beautiful, dainty little species growing so gracefully in the woods, to the reality of modern hybridization. And whether or not we liked what we saw, everyone who got out of the busses and poured into Joe Ghio's Bay View garden could easily see that there have been some changes made. The world's gardeners are lusting for a chance to grow these spectacular flowers. It should be one of our top priorities to make their dream a reality.



BORER UPDATE

Adele Lawyer

It is gratifying to be able to report that serious efforts are finally being made to define the life cycle of the borer, *Amphiopoea americana* var. *pacifica*. Dr. Gerald Powell, of the University of California Entomology Department, Berkeley, has assigned a graduate student to the project. He has also potted PCI plants and taken them to his home garden to define progress and timing of the nocturnal *Amphiopoea*'s activities.

Information on this apparent new borer activity was initially reported to the Entomology Department of the University by Lewis and Adele Lawyer for SPCNI, but it was not until we informed Nancy Bromfield, Entomologist for the Alameda-Contra Costa County Regional Parks

Department, that research on the borer was actively promoted.

In addition to its presence in private gardens, the borer has been threatening the substantial plantings of species iris in the large Regional Parks Garden and in the University of California's Botanical Garden. Bromfield has made extensive field observations on the moth and the extent of its destructive action. Because of her professional enthusiasm, she is also monitoring potted PCIs which she has positioned in her home garden for this purpose. She reports that first sighting of the moth in the San Francisco Bay area is expected in May. Early indications substantiate previous suppositions that *Amphiopoea* has only one cycle a year.

We are very pleased that professionals are now involved in active investigations. Ever since we first heard and reported on a borer destructive to Pacifica iris in the Almanac, (Fall 1991), reports of the areas of its activity have widened. Jenny Flemming of Berkeley first called it to our attention, and Loretta Figueroa in Marin County, next noted it. Since these reports, a substantial percentage of Flemming's PCI population has disappeared into plastic bags put into her garbage can. And Figueroa no longer grows Pacificas at all, saying her smaller garden was hopelessly infested.

It has been reported from members in California's Alameda, Contra Costa, Marin, and Sonoma Counties.

No evidence of the borer has been seen in Joe Ghio's garden, nor in that of Portable Acres. Plants received from these sources should not cause concern to purchasers.

In mid-April, as this is written, our garden, which has never had borers, remains free, however no evidence of its presence has yet been seen in previously infested gardens. Hopefully, this will be a cyclic phenomena; but hopefully, if it is not cyclic, we find out how to control it before it becomes even more serious.

For previous summaries of the borer's activities see Almanacs Fall '91, in which photographs are included, and Fall '92, describing the life cycle.

UPDATE ON CAROL WILSON'S STUDY OF THE PACIFIC COAST IRIS SPECIES

From a taped interview

Carol Wilson has expanded her morphological study of the PCI from her original work on the status of *Iris thompsonii*. This work was summarized in the Fall, 1990, ALMANAC. She has continued her studies of the PCI species relationships in the Department of Integrative Biology, at the University of California, Berkeley.

Started as a search for a better understanding of the taxonomic placement of *Iris tenax* and two other members of the *I. tenax* complex, *I. tenax* var. *gormanii* and *I. tenax* subsp. *klamathensis*, her study now encompasses all the PCI species and their subspecies. She is even including two 40-chromosome Siberians, *Iris forestii* and *Iris delavayi* to see where they fit in to the overall picture.

Carol originally planned her present study to include 65 morphological characteristics, about half of which were associated with color. She has since dropped references to color characters, agreeing with Lenz and others that color was too variable within species to be used as a distinguishing factor. Her present work, now nearing completion, measures 32 characters of each species.

For this investigation, Carol gathered plant specimens in their native habitats of Washington, Oregon, and California.

For most species she was able to obtain plants in two or three widely separated locations, enabling her to evaluate differences, if any, within species populations as well as differences between species. For *I. tenax* var. *gormanii* this was impossible since only one small habitat still is believed to exist.

Plants which she has gathered from the Pacific shore to the Sierras and from the Northwest to the San Bernardino Mountains of southern California, are growing beautifully together in pots in a lath house at the University of California, Berkeley.

Carol has completed her morphological studies and has constructed several types of "family trees" for her doctorate thesis. Interestingly, the species tend to separate into three groups which correlate quite well with their geographical distribution. She has also obtained reproductive data from selfing, and from interspecific, and species-variety crosses.

She is now starting on the final phase of her work, the molecular studies. For this phase, she will be sequencing nuclear DNA from each of the 20 taxa in her studies. It will be interesting to compare these findings with those of the morphological studies. We will inform you of results after publication of her thesis.

EXPEDITION 1994

Adele Lawyer

This year's Expedition differed from the 5 previous trips in several respects. First, it was the earliest. Taking place on April second and third, it was a month to a month in a half earlier than previous expeditions. Second, it was necessary to hike a mile or so to view the wild irises, whereas on previous trips, we had only to emerge from the bus, and possibly stroll a little to be in the midst of our quarry. Third, cultivated gardens were included for the first time. And lastly, our participants were separated into two buses. In spite of these deviations, everything worked out fine!

Most of the Expedition took place in the San Francisco Bay area of California. On the first day, we went to Deer Park in Fairfax, Marin County, to see *Iris douglasiana* var. *major*, the "Marin Iris". To see it, we hiked up Six Points Trail on Mt. Tamalpais to see it blooming under the coast live oaks, *Quercus agrifolia*. Louis Fry, who planned the first day's route, informed us that these iris are believed to be natural hybrids involving *I. fernaldii*. There have been no fernaldii growing in



Photography was a top priority to most



On the Six Points Trail

Marin County within memory, but the mix of plants with perianth tubes, both long and intermediate in length indicated that

us to keep our distance from some special specimens, we would have used up all our film in that area.

this group was not pure douglasiana. We saw a colony of lavender macrosiphon growing quite close to *Iris douglasiana* var. *major*, and presently contributing to the diversity of color and form in the iris we had come to see. They varied in color through white, cream, yellow, pink, violet, and blends. And some had signal spots of a contrasting color. The variation of pastel colors was endless, and if it wasn't for poison oak, which forced

On the way up and down the hill we saw and photographed other wild flowers. *Dodocatheon hendersonii*, *Fritillaria*



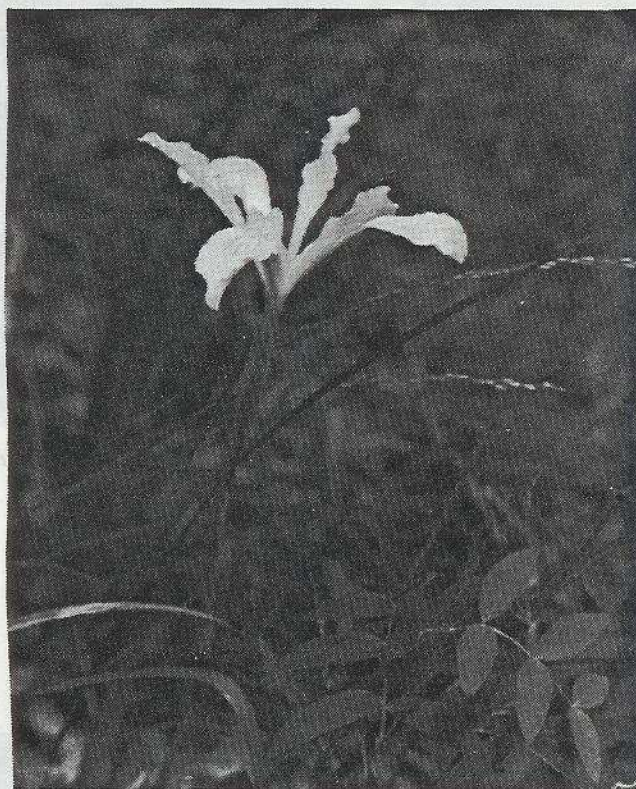
Bennett Jones, Evelyne Lennette,
Ed Ralston, and David Lennette
on the Six Points Trail



Iris X douglasiana
Natural hybrid

lanceolata, *Trillium ovatum*, *Delphinium hesperium*, and *Castilleja franciscana*. to mention a few. Flower photographer, Charlotte Keasey, stopped along the way to picture many more.

We came down from the mountain to lunch, and even picnic tables, (another first). A fabulous Greek salad featuring marinated vegetables and feta cheese was a memorable feature.

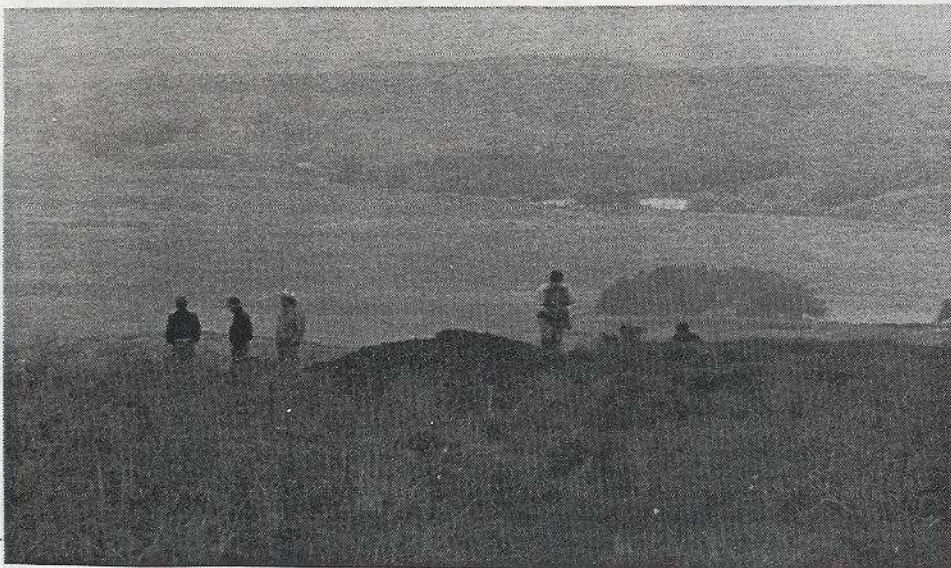


Iris douglasiana

Next stop was at Point Reyes National Seashore. We stopped on an always-windy bluff overlooking the ocean above McClures Beach. Although we have been there when the wind was even wilder, it was far from tame this day. *Iris douglasiana* was dark purple here and was not blooming profusely. The perpetual wind was in charge here, and both foliage and flowers were horizontal and oriented away from the sea as the wind dictated.

We could see the silhouette of an elk in the distance against the sky on the left hand side of the road when we first got out of the buses. And then, all at once, the elk were seen much closer on the right side of the road. We must have startled them, and they started running down into a deep canyon, and up the very steep north side. They were in single file. It appeared at first there would be about

three of them, but they kept coming, each with about a elk and a half space between. There were 15 of them, and with the single file spacing, it was, indeed, a very good show!



Bleak hillside, Point Reyes, locally famous *Iris douglasiana* habitat.

Last stop was on the undeveloped property belonging to Indian Valley College in Novato. On either side of a creek were masses of *Iris macrosiphon* studding a grassy, moist meadow, which also featured bright yellow *Camissonia ovata*, (Coast sun cup), for extra sparkle.

The iris are principally light to deep purple, with an occasional light blue in the mix. To the west of the creek, the Frys had pre-located an unusual red - violet specimen; and an outstanding blue-white one was discovered on our trip, causing quite a traffic jam at the site. These will be marked so that seed can be collected at the proper time.

About half of our group had dinner together at a restaurant adjoining our motel. A program followed

in which Carla Lankow showed us some of the progress being made as the result of crosses between Pacificas and 40-chromosome Siberian iris. With the current im-

provement in the Siberians, Carla is hopeful for progress in Cal-Sibe breeding. Kim Blaxland showed slides of some of the violas she has photographed, mostly on our trips. There were also fine slides from Kathy Millar, Glenn Corlew, R. D. Kenitzer, and Ted Kipping.

On Sunday morning we drove directly to Joe Ghio's Garden on Bayview Street in Santa Cruz, eating a breakfast of breads and fruit en-route.

Joe greeted us warmly, and we couldn't believe the diversity of colors, shapes, and patterns in the Pacificas that dazzled our eyes as soon as we entered the gate!

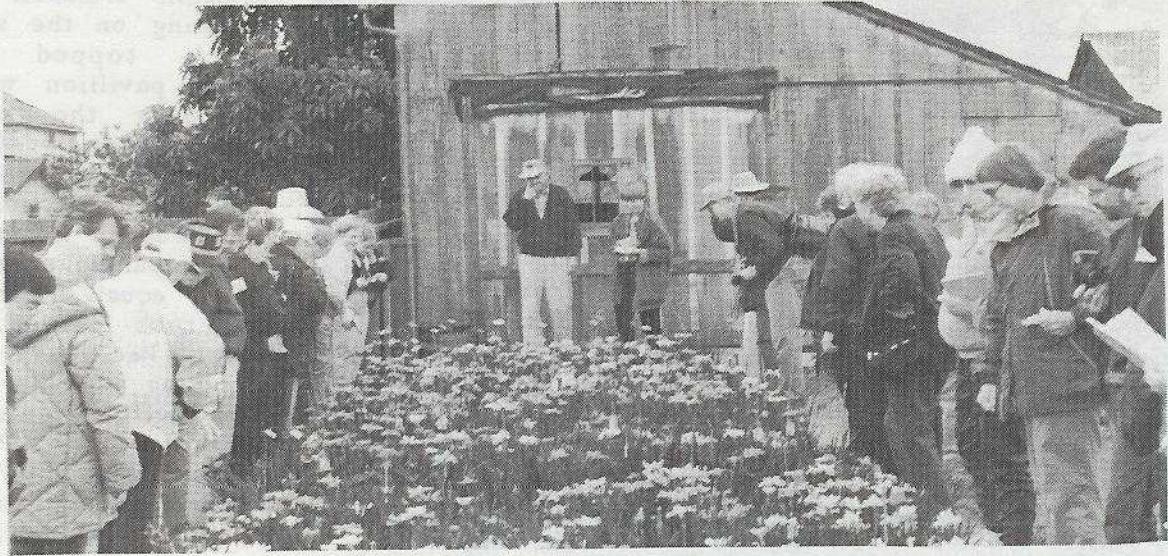
Having just experienced the wild form of the native iris from which his hybrids were derived, the sophistication of the

Ghio blooms was all the more overwhelming! Their petals were broad, ruffled, and of strong substance. Signals and lines were completely absent in some, and exaggerated and embellished in others. There were rims in contrasting colors edging many of them, and there were colors which had never been seen or imagined for Pacificas.

We were also fortunate to have picked this year to visit. It seemed as though every PCI was in bloom. Earlies through lates were in bloom at once. The seedlings were shoul-



Iris macrosiphon, near Indian Valley College.



Joe Ghio shows group his bed of seedlings.

der to shoulder solid blooms. I am glad that I did not have to decide which ones to select and increase, - a near-impossible task! Joe has a good eye for selection, however, and the quality of his introductions are always a step forward. When you realize that, in addition to plants, you can also purchase seed of his selected remnants, how can you resist! The seed will not result in something exactly like those we viewed, but they will all be Ghio types. It isn't any kind of a gamble.

We went on to the Lawyer garden and lunch next. Entering the gate, red and orange hybrid clivias, growing in the



In the Lawyer garden.

shade garden under the native oaks, lighted up the path. Azaleas, helleborus, cyclamen, and streptocarpus were part of this landscape. We went through another gate into the back garden. Here, the garden has a southern exposure. It slopes downward, affording an overlook of the garden with San Francisco Bay in the background. Here were seen examples of other current Pacifica hybridizers along with Ghio's. Terry Aitken, Lois Belardi, Ben Hager, Charles Jenkins, Bennett Jones, John Marchant, Duane Meek, Colin Rigby, Vern Wood, and John Weiler were represented. PINK CUPID, growing in pots brought to the garden by Gigi Hall, was lovely, approaching a true pink.

In addition to the newer varieties, there were earlier introductions ranging from AGNES JAMES (Starker '35) through the 1970s. Vintage varieties such as AMIGUITA, CALIFIA, FAIRY CHIMES, MOONLAD, and PASATIEMPO were represented.

A large amount of space was occupied by the Lawyers' Pacifica breeding in shades of blue. SIERRA DELL was in bloom, as were their other introductions, and many seedlings. Two of these, XP228A and B, which are the darkest true blue yet developed, attracted much admiration, as did XP109A, a robust, productive blue seedling with a starry, less modern flower shape.

Arilbred iris were also in bloom, as well as early-blooming tall and Med-



XP109A in the Lawyer Garden.

ian bearded iris, and evansias, *Iris wattii* and *confusa*. Beds of pansies, snapdragons, columbine, primula, pinks, babianas, and ixias accented the iris plantings, along with the fragrance of wisteria.

We then went on to the next stop, this in the industrial flatlands of southwest Berkeley. The famous Lenette garden, *The Urban Oasis* is located here, a half block from their viral laboratory. It is enclosed by a high fence. It was interesting to watch the expressions of surprise when our group came through the gate for their first sight of the "secret garden." It is totally unexpected to see the lovely rock garden with its varying levels in this neighborhood.

Designer, Harland Hand, planned the garden so that you can walk on his lily-pad shaped stepping stones between islands of plant-nurturing boulders and rocks of varying sizes. Tucked into the rock niches are compact perennials, bulbs, rhizomes, and succulents. Many PCIs decorate the garden. Taller plants, shrubs, and some tropical fruit trees occupy the upper level. Among them, a specimen of *Iris Japanica* had space to display its graceful flower sprays. A beautiful pink-flowered tree peony was blooming nearby. Stone benches which blend in with the rock setting invite the visitor to sit down and drink it all in. This includes looking at the pond and bog area, where water lilies, Siberian and Japanese iris will bloom later in the year. Fragrant

Clematis armandii was blooming on the arbor which topped the raised pavillion which overlooks the pool. This structure defined the boundary of the rock garden section of the garden. Behind it is an area approximately equal in size to the rock garden, in which Pacificas were blooming. This section will eventually contain more PCIs, since David and Evelyne intend to do some hybridizing some day, when time allows.

Our final stop was Vern Wood's home in Pinole, where his garden is devoted exclusively to iris.

He hybridizes both tall bearded and Pacifica iris and has introduced prize winning varieties in both classes. Vern has a firm policy to restrict his introductions to varieties that grow and increase well for him. We saw some beautiful color forms among his seedlings which he will not further increase because of his rigorous standards. In addition to PINK CUPID, we admired 93-72, a Foothill Banner hybrid with healthy, green foliage and darker veining and style arms than its parent. Many of the visitors urged Vern to intro-



Bennett Jones, George Lankow, and Gigi Hall in the Vernon Wood garden

duce 94-4, a vigorous clump with flowers in a complex, but beautiful blend of golden yellow, bronze, and crimson. Vern, however, had reservations about the flower form. We'll have to wait and see what he decides.

After this last stop, we drove back to Larkspur landing. The Ralstons sold some Pacificas which they had potted for the benefit of SPCNI, and we said our goodbyes to old and new friends with whom we had spent an enjoyable weekend.

The participants were: John & Pat Bender, Seattle WA; Kim Blaxland, Radnor PA; Sarah Boonin, San Francisco CA; Robert & Irene Byrne, Berkeley CA; Edith Byrne, Lavallette NJ; Scott Christy, Portland OR; Debby Cole, Mercer Island WA; Georgianna & Paul Combs, San Leandro CA; Phillip Combs, Berkeley CA; Glenn Corlew, Walnut Creek CA; Bill & Jeann Corle, Philomath OR; Marie Flamme, Piedmont CA; Jerry Flintoff, Seattle WA; Barbara Flynn, Redmond WA; Louis & Caroline Fry, Novato CA; Chuck Gabrysiak, Concord CA; Sharon Gaffney, Renton WA;

Anna Maria Galdieri, Oakland CA; Gigi Hall, Fremont CA; Lois Hanna, Alameda CA; Ed, Elyse, & Damon Hill, Sebastopol CA; Jay, Terri & Tod Hudson, Fort Bragg CA; Bennett & Evelyn Jones, Portland OR; Lorel Kay, Mendocino CA; Charlotte Keascy, Salem OR; R.D. & Diana Kenitzer, Sequim WA; Ted & Diana Kipping Jones, San Francisco CA; Dick Kiyomoto, North Haven CT; Lawrence & Ruth Korn, West Linn OR; Susan Lambiris, Raleigh NC; George & Carla Lankow, Renton WA; Alice Lauber, Seattle WA; Lewis & Adele Lawyer, Oakland CA; Evelyne & David Lennette, Alameda CA; Bob Lily, Seattle WA; Gene & Joanne Loop, Walnut Creek CA; Harold & Gen Mattos, Petaluma CA; Lew & Jane Mickleson, Seattle WA; Kathy & Gary Millar-Cline, Duncan, BC, Canada; Michael & Elaine Monninger, Riverside CA; Larry & Karen Moss, Trinidad CA; Aiko Oshima, Castro Valley CA; Mary & Ed Ralston, Pleasant Hill CA; Alan & Pat Robbins, Pleasant Hill CA; Barbara Saloy, Oakland CA; Steven Jon Taniguchi, Santa Clara CA; Gisela Von Puttkamer, Oakland CA.

Special thanks to Mary Ralston for pictures used on pages 6, 7 & 8 of the above article



Ghio Pacificas, Campaigner and Native Land, blend with succulents and granite in the Lennette's rock-garden setting.

ATTENTION PHOTOGRAPHERS

The SPCNI does not have any slide shows for use by AIS clubs. The reason? - NO SLIDES! GOOD slides of hybridized PCIs of all ages (not just the latest introductions) are needed. So please, photographers, when you take that slide picture of a PCI, take a second one for SPCNI. I will need WHAT, WHERE, and WHEN for each slide. Proper identification of introductions or species is important. And then send the slides to me. I hope to get

enough for two shows, one showing development of PCI hybrids and one showing the latest introductions. (I can put together a show of wild iris from available 1991-1994 Expedition slides.)

If you have slides now that you would like to contribute, they will be gratefully accepted. If you want them back, I will have copies made and will return your original.

R. D. Kenitzer
SPCNI Slide Chairman
2270 S. Seventh Avenue
Sequim, WA 98382

PACIFIC COAST IRIS IN OREGON

Bill Ferrell, District Representative, Oregon

For the last several years I've imported a number of cultivars in my garden with rather variable results. That's shorthand for saying that the results have not been too good. A number have had crown rot which really wipes them out. It seemed to me that it would be useful to those of us up here in the northern range of our PCI species to compare notes to see which cultivars and species did well and which did not. So I sent out a questionnaire to all of our members in Oregon to get their comments on what was doing well and what was not. Here's the report on their responses and my summary and reflections on the comments.

Bill and Mary Hoffman

Iris tenax is reliable. Hybrids with *I. innominata* and *I. thompsonii* usually do well. *I. douglasiana* is indestructible. *I. innominata* and *I. thompsonii* last 4 or 5 years before weakening. *Iris bracteata* barely struggles along, and *I. tenuis* submits to slugs before it can get going in the spring. The Hoffmans have much better luck with plants from seed than from divisions.

Bill Plotner

PCI species, in order of vigor and reliability of bloom, are: dwarf *douglasiana*, *I. tenax* (dark), *I. tenax* (light), *I. douglasiana*, and *I. douglasiana alba*. *Iris*

missouriensis and *I. tenuis* fit in with the douglasianas. Among Pacifica hybrids for growth and bloom, the top five are BIG WHEEL, MUNRAS, JUNIPERO, CARROT TOP, and PACIFIC RIM.

George Gessert

Unfortunately George has consistently lost 1/2 to 2/3 of the plants imported from California. He uses those that survive in his hybridization program with native species and other successful hybrids. Old reliables are: WESTERN QUEEN, CANYON SNOW, RINCON, BIG WHEEL, and BIG MONEY. These all produce vigorous hybrids with *Iris tenax* and *I. tenax* - *I. innominata* hybrids. WESTERN QUEEN and CANYON SNOW are especially good parents with local species. The species: *Iris tenax*, *I. douglasiana*, *I. innominata*, and *I. chrysophylla* all do well. *Iris bracteata* does not do well, and its hybrids with *I. tenax* are not vigorous and have rather narrow-petaled flowers.

Walt Robbins

Iris douglasiana and *I. tenax* are growing, but none of his PCI's are prospering. His location, deep in the Sandy River canyon with perhaps too much shade, could account for his problems.

Ken Hixson

Generally speaking, seedlings do better than transplants of named varieties.

Iris tenax does well, and he would like to try *I. gormanii*. (Anyone have any?) *Iris douglasiana* does well but seems a bit too big vegetatively to be attractive in the garden. CANYON SNOW grows, but is not vigorous. *Iris macrosiphon* grows reasonably well, but has a rather narrow flower and doesn't hybridize easily. *Iris fernaldii* has narrow flowers of poor substance and low saturation here, but grows fairly well. *Iris chrysophylla* doesn't last, and he would like to try it from seed. *Iris bracteata* is alive but is not doing well.

Roger Brewer

The species *Iris douglasiana* (white), *I. douglasiana* (purple), *I. innominata*, *I. chrysophylla*, and *I. fernaldii* are all doing well. *Iris macrosiphon* grows, but has not yet bloomed. The Pacificas: ORCHID SPRITE, MORNING FAIRY, and AGNES JAMES are doing well.

Florence Ebeling

Florence reports no problems with overwintering in her heavy clay soil which is on a slope. She successfully grows *I. tenax*, *innominata*, *douglasiana*, *thompsonii* and *tenuis*.

Ruth Korn

Ruth has had good luck with most species tried. So far these include *Iris tenax*, *I. innominata*, *I. douglasiana*, and *I. tenuissima*. She has just set out young plants of *I. bracteata*, *macrosiphon*, and *hartwegii* which were grown from seed. Next up are seedlings of *I. munzii*, *fernalddii*, and *innominata* which will be set out this spring for observation. Ruth has good soil and drainage.

Claude and Joanne Derr

Claude and Joanne have both species from seed and cultivars from California. They also have species transplants of *iris douglasiana*, *I. tenax*, *I. chrysophylla*, and *I. innominata* which have survived and bloomed. *Iris macrosiphon* grows, but hasn't bloomed so far. Claude thinks that good drainage is the key to their success.

Lorena Reid (Laurie's Garden)

Many PCN's grow well at first, but they seem to get "done in" by some fungus or fungi. She uses Subdue on the plants at least twice a year, but still loses many. Among her cultivars, WILD PARTY did well for many years, but died during the winter of 1992. UPPER ECHELON grows very well and blooms well consistently. Other cultivars which are OK as of now (is

it luck or is it resistance?) are PACIFIC RIM, IT'S WILD, SPANISH RAYS, STROKE OF MIDNIGHT, SOMETHING WILD, and LOS CALIFORNIO. Acquisitions of 1991 and 1992 which are doing well are PUZZLE, VILLA MONTALVO, WHAT'S THAT, ALL SHOOK UP, and CARPACCIO. Laurie's soil is well-drained, so that is no problem.

Duane Meek

Duane lost quite a few varieties in the winter of '92-'93, but feels that this was due to a "horticultural malfunction", a catchall phrase he says he got from Ben Hager. The plants with well-established root systems in raised beds did well; those in pots or planted late with no chance for adequate root growth did poorly (75% loss). Duane was pleased that hybrids from *munzii* parentage did well. A few well-established cultivars "committed suicide", says Duane. Actually he feels that most will not grow indefinitely in clumps, but need division to survive and grow well. Cultivars that are touch-and-go are: IT'S WILD, BLACK EYE, UP ALL NIGHT, and EGO TRIP. Most others grow like weeds. Duane says that he gets *Iris tenax* to rebloom by watering

Bill Ferrell,

I've had consistent trouble growing many cultivars from California, first in pots and then in raised beds. Some oldies that grow well are CANYON SNOW and AGNES JAMES. Among the newer ones, PACIFIC RIM and BLACK EYE have done well. Among the species, *Iris tenax* does well as does *I. douglasiana*. *Iris bracteata* especially, and *I. innominata* and *I. chrysophylla* do poorly. The seeds germinate well and the seedlings grow for awhile, but then a crown rot gets them. I grow my plants in raised beds, and use Subdue to try to control the fungus, especially on newly-arrived cultivars, but not with much luck.

So how to summarize all of this? It seems that good drainage will take care of many of the problems, and an open area with air movement may be of help as well. However, there seems to be a crown rot that persists in some gardens. Selection for more-resistant varieties is another possible solution. The dry-environment species, especially *Iris bracteata* and to a lesser degree *I. innominata* are simply not well adapted to the wetter parts of our state. Introducing more *I. tenax* genes into the hybrids might be a help.

SPECIES AS GARDEN PLANTS

Lewis Lawyer

There are several comments by contributors to the previous article bemoaning the fact that they have not succeeded in getting *Iris bracteata* to grow well in their home gardens. I think that there is a natural explanation for this problem. We have seen most of the species growing in their native habitats, and we have found that *Iris bracteata* and several other species, do not grow lavishly even where they seem best adapted.

Iris tenax, which we recommended as a potential parent in our message, "From the Editor", makes beautiful large clumps in the wild. *Iris innominata* also makes beautiful, though smaller clumps. *Iris douglasiana*, as we have seen, can take over a whole hillside without space enough for a deer to walk between the fronds.

Iris bracteata, on the other hand, has two or three plants every ten feet or so, and few plants have more than a dozen leaves each. Except for the possible advantage of an optimal application of fertilizer, this is much the way you should expect pure *I. bracteata* to behave in a home garden. The other species we have seen lie somewhere between *I. bracteata* and the three clump-forming species noted above.

Iris macrosiphon is difficult to place. We have seen large colonies where almost every plant is a small, but well-formed, clump. Other colonies are mostly individual scattered plants. Its value as a parent is also hard to evaluate. Of the 7 named cultivars in which it is listed as a possible parent, only one, Greenbriar Contrast, remains in commerce. The origin of Greenbriar Contrast, however, is listed as: "Unknown; from seed collected in the wild, probably *I. macrosiphon* - *I. douglasiana*", which is by no means a positive confirmation."

We have seen only two fairly large (1 to 1 1/2 feet in diameter) clumps of *Iris*

hartwegii, but without digging them, there is no way of knowing whether they are true clumps of a single clone or a mass of seedlings from an original plant. Other than these two plants, we have found *I. hartwegii* growing much like *I. bracteata*, that is widely separated individual plants with occasional colonies of closely-spaced plants apparently originating from scattered seed. These colonies are usually only a few feet in diameter. The only record we have of its use in hybrids is that it was of negative value.



Colony of *Iris hartwegii* plants in Stanislas National Forest.

Iris munzii is another species that multiplies slowly, if at all, but it has other attributes that make it an important addition to our PCI genetic pool. In nature it produces widely scattered plants, much like *bracteata*, but with large enough leaves and flowers to make it quite impressive. In using it for hybridizing, however, its trait of slow reproduction has been a tenacious and difficult factor to overcome. It is still showing up in plants as far removed from the species as the eighth generation.

Iris chrysophylla, like *Iris hartwegii*, has only negative reports on its garden hybrid value. Most of the colonies I have seen are reluctant to increase and the petals are undesirably narrow. It has, however, an interesting possibility as a parent. Its style crests are very long and feathery, giving the flowers a quality of

being in flight. This was especially noticeable in a colony found along the roadside at the southern end of the Cow Creek Loop, a few miles north of Glendale, Oregon. If this characteristic could be added to a wider-petaled *Pacificas*, I think the effect could be spectacular.

Using any of the species in a hybridizing program, however, is quite different from using it in its pure form as a garden subject. When you hybridize, you can usually select for its desirable features and eliminate the faults. It may take a few generations, but it can be done. When you use species as garden subjects, you take them just as they are in the wild. You

can give them ideal growing conditions and perhaps make them look a little more lush, but you can't change their genetics.

So, in growing pure species plants, you must keep in mind that many of them do not grow into clumps normally, and may behave the same in a home garden. *Iris munzii*, for example often increases so slowly that it blooms out, even after several successful years. While blooming out, however, they usually produce a final crop of seed. These poor growers depend in a large part on such seed production for survival in their wild habitats and you might have to accept this as a way of life in your garden.

THE ACRES ARE PORTABLE

Colin Rigby's mail order nursery, was christened, *Portable Acres*, because the gophers were always relocating the soil and making off with plants. And now it is Colin, himself who has dug up the soil and relocated all the plants!

As noted in the President's message, Colin and his wife Teressa have left Penn-grove, California, which is a little south of Santa Rosa, and moved to Rochester, Washington. Here, not many miles south of Olympia, near the Chehalis River, they have purchased one and a half acres of farm land, built a new home, and have burned up many highway miles transporting plants and belongings, and transplanting them to their new home.

The property was bare when they arrived except for lovely waving grass. The grass is considerably less lovely to Colin

now, since it turned out to be a very deep-rooted and persistent stoloniferous native, called locally, "Quack grass" or "Prairie grass".

Much has already been accomplished toward transforming the property into a garden. Maple trees and mixed conifers now border the fence line, and *Pacificas* and species iris have left their pots and are thriving in the open ground. Most of the *Pacificas* are already blooming in their new home.

Portable Acres will not conduct business as usual this year, but they will have a plant list for the 1995 season. They will continue to ship plants in soil in plastic sleeves to those who order from some distance or to those who request shipment in the spring, but locals will receive bare-root plants.

LETTERS

Mrs. Ted Lind, Tacoma, Washington

In reference to the ALMANAC Fall, 1992 issue: Joanne Derr asked if anyone has had luck with seeds of Cal-Sibes.

Three years ago I decided to try my luck. HALF MAGIC had put on pods each year, but with the reputation of Cal-Sibes being sterile, I had hesitated. I'm sorry I didn't count the number of seeds I planted, but I know there weren't many.

Five seeds sprouted. Two of the five plants were weak and I finally lost them, but the other three have evolved into great plants. If they don't bloom this spring, then I'd say they weren't going to

for whatever reason. They are definitely PCN's

I hope I will have exciting news to report.

Jean Witt, Seattle, Washington

Here in Seattle, all kinds of irises have to take what they get. So far as soil goes, gravelly glacial till is what I have. I add compost, 5-10-10 fertilizer, and lime for the bearded; lately I've been using alfalfa rabbit feed. Seedlings grow well initially. I feel that older plants do not like to be dug into or reset; they prefer to be left

alone. Of the older clones that I've had for many years, some grow well and others dwindle. I think that the tight clumpers maintain themselves better than the long-rhizomed wanderers. Some of my collected things have gradually petered out. In some rows, a clump here and there has quietly turned brown and departed over summer. I suspect these have died from botrytis or some other rot inherited from the bearded which formerly occupied that bed. Planting PCIs in beds that once had bearded is probably not a good idea.

What is really disgusting is that all the irises grow so much better for my daughter at Gatson in northwest Oregon. She has red clay soil, soggy in winter and baked hard in summer. *Iris tenax* grows wild on their place. Do the irises like the soil packed firmly about their roots? Of course, there is no accumulation of iris-borne organisms at this point. Summers have been hotter than here on Puget Sound; and her irises are out in full sun on a south-facing slope instead of being subjected to creeping shade. I use minimal water on the PCIs.

I don't know if the above is of any help. PCIs are wild flowers and they prefer things their way and not ours.

Dora Sparrow, Christchurch, New Zealand
[Dated February 1994]

Things are much as usual here in Christchurch. Weather is unpredictable, very hot, well into the 90's, interspersed with humid little rain spells. I had some nice Pacifica bloom in the spring; but not a great lot of pods have developed seed, - very disappointing. The plants, however, look fairly good, although some days it is just too hot to be outdoors at all.

I still have two plants of SIERRA DELL (open pollinated) unflowered. The other two succumbed to the vagaries of Sierra Dell. Never mind, I live in hope!

The news is that I'm leaving my lovely home and garden, which I have enjoyed for twenty-six years, for a small retirement unit with a very small garden. My friends say that I must continue with my work with the Pacificas, and I have had two gardens offered to me to plant out seedlings. Friends are just so kind! But I need some leisure in my days, now. My son and his wife have taken all the overflow from my garden to their garden twenty-five miles away, TBs, Siberians, Pacificas. They have two acres of land

and a lake, giving a beautiful water garden.

I do wish I could be with you on the Expedition this year, but I don't think I can make it. I've had two plants of *Iris tenax* from seed collected from our trips given me bloom this spring, - a blue just lovely, and a pale biscuit, with warm markings which gave me five flowers; but it may have done it's dash! It was all such a thrill!

My address, starting in April, will be:
Mary Potter Courts,
35 Caledonian St Albans,
Christchurch, New Zealand.

I don't want to miss any information on the society and on the friends I have made on the Expeditions I have enjoyed so much.

Teresa Sage, Woodland Hills, California

I have been growing PCIs since Joe Ghio brought some seeds to the San Fernando Valley Iris Society in November 1988. The spring of 1990 brought a colorful display of PCIs in this hot area of San Fernando Valley. I have purchased from Joe Ghio and the seed exchange additional seeds. About 40 plants should be ready to bloom next spring. More seedlings are just coming up.

Making purchased plants grow here after 5-6 days in a box has not been too satisfactory. Since our weather at planting time is quite unpredictable, - hot, dry, Santa Ana winds. Nevertheless, I'll try again. Maybe the way to go is planting them in pots until they are established. I use styrofoam pots. When ready to plant in the garden, I prepare the planting hole, then cut the bottom of the pot away, set the pot in the hole, fill it in, and make a cut on each side of the pot and lift out the two sections. This method seems to work.

Doug Murray, Hope, B.C., Canada

I thought I would send you a report from the rain forest to use in the *Almanac* if you wish.

We grow about 350 iris, both cultivars and species; but so far only 15 are Pacificas. Our garden is in a zone 7 rain forest, with annual rainfall from 60 to a record 123.4 inches in 1990. (We consider Seattle a bit arid). We are 100 miles inland, but only 140 feet above sea level. Sunshine is limited by 6000 foot mountains to 12 hours per day for most of the growing season, and our nights are almost always cool.

Our Pacificas include DRIVE YOU WILD, LAS OLAS, and RIO DEL MAR, survivors of a disastrous strike-bound shipment from Aitken's. Kathy Millar and Robert have provided some seedlings, and the rest are my seedlings from the 1991 seed sale. We also grow *I douglasiana*, *I. tenax*, and the Cal-Sibe, GOLDEN WAVES.

All of our beds are raised, slightly sloped, a mix of sand-compost-topsoil, with a pH of about 6.5 to 7.0. Leaching creates a need for some fertilizer, usually 5-20-20 slow release or 0-10-10 liquid fish, Mor-Bloom.

The Millar and Robert Corbett seedlings have done very well with about 100 blooms on each clump. Douglasiana also bloomed heavily in its second year. The rest bloomed lightly, and last fall were moved to sunnier spots.

The Pacificas do well here. They show no signs of insect or disease. Our snow cover is undependable here, and mulching is often counter productive; but they survived 0 degrees F. this winter and torrential rains in '91-'92 without loss. We plan to increase Pacificas to about 40 in the next two years. It would seem to me that the answer to growing PCI successfully is not "dry" but "drainage"! I would appreciate hearing from other "wet" gardeners who grow Pacificas.

Bob Potterton, England

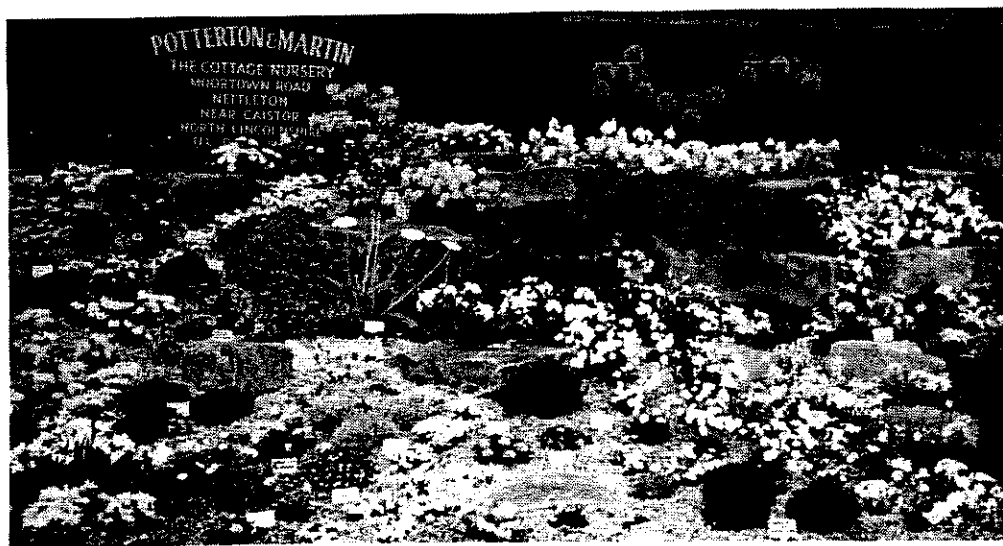
We have had success growing PCIs in pots. At the Chelsea Flower Show this year we displayed *I. tenax*, a plant grown from a U.K. seed source obtained in 1988. It was a delightful, graceful, lavender-pink specimen, and caused plenty of comment from the thousands of visitors to this leading show. We enjoy displaying our plants in a natural setting. The photo enclosed shows numerous alpines, dwarf bulbs, and miniature conifers within the scree garden. A running water course is included. This dis-

play was built in association with our good friend, the landscaper, Peter Orne.

At home, the Pacific Coast iris are all thriving, so much so that it has been necessary to re-assess and change my policy of growing them in pots. As we attend a number of large horticultural shows around the country, I had intended to display your PCIs at some of them. Obviously, growing them in pots is the best way to enable us to transport a growing plant, and also to ensure its safe return.

In the case of *Iris munzii*, however, fourteen seedlings (my first PCI germination) of SPCNI's #90014, were potted into 3 1/2-inch pots in April 1991. They have been repotted on a regular basis through July 1993. Each time this was done it was noted that a strong root system had formed, but very little top growth, let alone signs of flower. At this point, and having re-read a couple of your letters [Louis Fry's letters], describing the growing climate of *I. munzii*, I decided to put 8 plants into an open situ frame, and 3 of them into our small nursery garden. I should add that from April 1991 through July 1993 these plants had been plunged into sand within a well-ventilated polyethylene tunnel. At the time of planting, *I. munzii* would have needed an 11 to 12 inch pot if they were to be repotted.

In addition to munzii, we will be transplanting the following species grown from SPCNI seed this spring: *I. tenax*, *chrysophylla*, *macrosiphon*, *macrosiphon* X *purdyi*, and *innominata*.



Bob Potterton's exhibit at the Chelsea Flower Show

NEW MEMBERS AND ADDRESS CHANGES

NEW MEMBERS UNITED STATES

Brandon, Nancy
1032 Glacier Avenue.
Pacifica, CA 94044

Brow, Barbara
2304 Chapman Road,
La Crescenta, CA 91214

Burrell, Galen
P.O. Box 754
Ridgefield, WA 98642

Byrne, Edith
15 Newark Avenue
Lavallette, NJ 08735

Cabraser, Sandy
11780 San Pablo Avenue,
Apt. 310, CA 94530

Champlin, Steven M.
323 "A" Street,
Washington, DC 20003

Egli, Barbara J.
P.O. Box 770.
Maple Grove, MN 55369

Flintoff, Jerry
154 N.E. 194th Street,
Seattle, WA 98155

Galdieri, Anna Maria
6517 Dana Street,
Berkeley, CA 94609

Hanna, Lois R.
644 Sand Hook Isle,
Alameda, CA 94501

Hendrickson, Frank
8601 Hayes Way,
Juneau, AK 99801

Hockaday, Joan
384 Stanford Avenue
Palo Alto, CA 94306

Hoffmann, Siegfried W.
1017 Claire Avenue
Sacramento, CA 95838

Jacobson, Marianne B.
P. O. Box 669
Columbia, CA 95310

Johnson, Daniel W.
2520 Marin Avenue,
Berkeley CA 94708

Joyce, Tanya M.
1425 Alida Street,
Oakland, CA 94602

Kapuler, Linda
2385 SE Thompson.
Corvallis, OR 97333

Kelly, Denise A.
17370 Keaton Ave.
Sonoma, CA 95476

Koch, Shirley
7050 King Road,
Loomis, CA 95650

Krasie, George S.
2725 NE 143rd Street
Seattle, WA 98125

Lauber, Alice
18922-45th Place NE
Seattle WA 98155

Lawton, Barbara P.
1430 Timberbrook Drive,
Kirkwood, MO 63122

Lilly, Bob
2331 Fairview Ave. E, #0
Seattle, WA 98102

Mace, Michael
6882 Aintree Drive,
San Jose, CA 95119

Mesilla Valley Iris Society,
960 Maple Street,
Las Cruces, NM 88001

Micklesen, Jane W. & Law R.
16730 45th Avenue NE,
Seattle, WA 98155

Nelson, Roger R.
6219 Topaz Street NE,
Brooks, OR 97305

Oshima, Aiko
19347 Parsons Avenue
Castro Valley, CA 94546

Payne, Carol D.
1080 Fern Ridge,
Felton, CA 95018

Quincy, Joanne
P.O. Box 564
Fair Oaks, CA 95628

Sahl, Susan
1025 D Street
Antioch, CA 94509

Savage, Michael & Mary
185 Calle Del Sol,
Bodega Bay, CA 94923

Schieber, Gil
7016 Jones Avenue NW
Seattle, WA 98117

Silva, Jack
18611 Calvert Street,
Reseda, CA 91335

Smith, Tamara
16388 San Born Road,
Saratoga CA 95070

St. John, William B.
1927 Bandon Way,
Sacramento, CA 95833

Stenson, Hilward
706 Robinson Rd.
Topanga, CA 90290

FOREIGN

Hirsbrunner, Liselotte
Chalet L'imprevu, CH 1885
Chesieres, Switzerland

Ito, Tikayoshi
Soushubetu Shimukkapu
Yufutugun, Hokkaido, Japan

Powe, Alan
27 Spafford Cres, Famen,
Canberra, ACT Australia

NEW ADDRESS

Arp, Fred
P.O. Box 365,
Applegate, CA 95703

Bulbes D'Opale,
389 Boerenweg Ouest,
Cidex 528 F-59285 France

Collins, Mr. Hec E.
6 Pyes Pa Road,
Tauranga, New Zealand

Densmore, Joel
18 Massachusetts Avenue,
Portland, ME 04102

Grant, II, Joseph B.
1766 River City Way,
Sacramento, CA 95833-1808

Jenkins, B. Charles
9426 E. Topeka Drive,
Scottsdale, AZ 85255

Kenitzer Jr., R. D.
2270 S. Seventh Rd.,
Sequim, WA 96382

Mallereau, Jacqueline
E. 3109 Tara Dr.,
Spokane, WA 99223

Paine, Joann P.
P.O. Box 308.
Yachats, OR 97498

Platte, Lluvia
2322 Salvador SW,
Albuquerque, NM 87105

Rigby, Colin and Teresa
18341 Paulson SW,
Rochester, WA 98579

Santa Rosa Iris Society,
134 Malet Street
Sonoma, CA 95478

Spiller, Caroline D.
Box 576,
Kentfield, CA 94914

Woodbury, Joan
1700 NW 119th Avenue
Portland, OR 97229

SPCNI TREASURER'S REPORT, 1993

BALANCE Jan 1, 1993

\$4028.05

RECEIPTS

Dues	1183.00
Dues Through AIS	305.00
Sales of Cohen Booklets	163.50
Sales of Lenz Booklets	256.00
Sales - Back Issues Almanac	123.00
Sales- Check List	151.00
Seed Sales	414.34
Deposits for SPCNI Expedition '93	1793.60
Interest on Checking Account	66.61
Donations	\$9.00
Krishna Copy Discount	\$12.82
Temporary advance	\$6.00
Deposits for SPCNI Expedition '94	\$1971.00
Exp.'94 Rcts Fwd to 1994	(\$1971.00)

Total Annual Receipts

\$4483.87

DEBITS

ALMANAC Spring, 1993	703.31
ALMANAC Fall, 1993	808.41
Secretary - Treasurer	179.12
SPCNI Expedition '93	1659.70
Supplies	-37.43
Almanac Reprints	15.27
Cohen Booklets	107.00
Lenz Hybridization	171.04
Check List	23.06
Calif Fee	5.00

Total Annual Debits

\$3634.48

BALANCE Dec. 31, 1993

\$4877.44

CORRECTION

On pages 10 and 14 of the Fall 1993 issue of the *Almanac*, Caroline Burke of

Beavercreek, Oregon was mistakenly identified as Barbara Flynn.