

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

**FALL, 1993
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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 interspecific 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.

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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

It was my pleasure recently to spend an evening conferring with the editor of the *Almanac* and the Secretary-Treasurer of SPCNI about the current status of our SPCNI. Several developments seem noteworthy. First, our membership has increased during the last several years; next, the annual Spring Expeditions, which began in 1989, are now fully subscribed, even in advance of formal announcements. Last, I have heard many favorable comments about the high quality of the *Almanacs*. My view is that the high quality, and broad interest, of the material making up the *Almanac* has contributed to both the increase in members, and to the popularity of the Expeditions.

My earliest observations of PCNI, like those of many other members, began in the backyard. The realization that these beautiful flowers are blooming, every year *en masse* in the wild nearby my home, was a strong inducement for me to join the first expedition. I wanted to see where and how irises grow and bloom in their native habitat, and where they do *not* grow also. My reasons for going on the expedition, however, have shifted over the years. I confess that irises are now only one of the many reasons that I participate. I have grown addicted to seeing irises against a background of an inestimable number of different flowers and plants, each as interesting and attractive as irises in their own right. I

now look forward each year to traveling with a group of companions, some crazier and all more knowledgeable about flowers and other plants than I am. The benefits of the trip stretch beyond the three-day trek. Many expedition participants have been growing PCNI from seed collected from areas that we have explored; their reports show that this activity can give as much satisfaction as growing the varieties produced by our hybridizers!

Those who have not been on one of our expeditions, when reading the Expedition accounts published in the *Almanac*, must realize that they are missing out on one of the best offerings by the SPCNI. The increased popularity of the expeditions has led to some logistics problems; so far we have limited ourselves to the use of only one bus, due to the size of the facilities that we have used, and the feeling that the quality of the experience on the expeditions will suffer if the number of participants increases substantially. Perhaps this should be open to comment, as no one is entirely comfortable in turning away people who want to participate in the expeditions. Please write to the editor if you have ideas about how this issue should be addressed.



FROM THE EDITOR

I had originally intended to say something else in this space, and I guess I should be thankful for this day of modern technology, but my computer just shook me up! David Lennette sent me the text of the above President's Message on a disk from his Macintosh, so that all I had to do was to put it into my Mac and ask it to print the text. No additional typing, no chance for errors. Louis Fry also sends his seed lists to me in that fashion, saving an appreciable amount of painstaking and error prone retyping on our part.

When we published the last edition of the check list, Francesca Thoolen sent us

her text of the previous edition which she had typed on her IBM compatible. It had to be translated by special equipment from IBM Word Perfect to Macintosh Microsoft Word before it could be read by my Mac. David's message, however, was typed on his Mac using Microsoft Word, the same software I use here. But even then when I inserted his disk into my Mac it flashed a message: "Interpret RTF Text?" When I chose "Yes", it very reliably presented the text printed above.

After I had printed the text and checked it for accuracy, I remembered that the message on my computer screen

had given me two choices, "Yes" and "No". What if I had chosen "No"?

I reinserted David's disk, and this time when it asked "Interpret RTF Text?" I chose "No"! There on the screen were two pages of gobbeldygook, the last 5 lines of which read as follows:

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}lpard \plain \s1 \f3 \fs24 \sl1320 \tx720  
ltx1440 \tx7200 lpard \lri0 \fi0 \s1320 \ql  
ltx360 \tx1440 \plain \f34 \fs24  
Note for Fall 1993 Almanac\par  
par
```

By the third page, the words became a little more legable and I was able to decipher the following:

It was my pleasure recently to spend an evening conferring with the editor of the \plain \s1 \f34 \fs24 \i Almanac \plain \s1 \f34\fs24 and the Secretary -Treasurer of SPCNI

about the current status of our SPCNI.

I could see right away that that wasn't the way David had typed it, and I resented the computer referring to this publication as the "plain \s1 \f34 \fs24 \i Almanac". It seems that we can't trust our computers after all, and though they do give us accurate information, we really don't know how they feel about us deep inside. This is the ninth ALMANAC issue our Mac has endured. I think about the thousands of changes, rewordings, re-spacings, and corrections we have asked it to make! Guess it's getting fed up.



OUR NEW PRESIDENT

Excerpts from a taped interview

As you were informed in the last issue of the ALMANAC, David Lennette would become our eleventh President effective July first of this year. Many of you have met David and his wife Evelyne on our Expeditions, but we thought all of you would be interested in knowing how he became involved in the PCI and what his non-iris interests are.

David Lennette grew up in Oakland in an area not far from Piedmont Avenue, and attended Piedmont schools through the tenth grade. In his mid high-school years the family moved to Ascot Drive in the Oakland hills. He attended Oakland High, and then transferred to Skyline High where, in 1962, "I was a member of the first graduating class of this then-new school.

"During this period I had little interest in plants, except in sharing responsibility for their care, although I did learn the names of some of the common plants in our garden."

David then went on to UC, Berkeley where he selected Physics as a major. Although he was kept busy concentrating on his major subject, it became evident to him that physics was not to be his real interest. During the third and fourth years of that program, "I had a chance to go back and take some biological science

such as had been my father's field. One of the first non-physical science courses I enjoyed was Biology. I was particularly interested in the genetics, taxonomy aspects of that field. I took a virology course and bacterial genetics, and decided to change directions."

For his graduate studies he chose Washington University in St. Louis, where a new biological program had just been set up. He and Evelyne, were married about halfway through graduate school. "The class we first enrolled in consisted of three persons: myself, Evelyne, and another person who eventually dropped out. Then we went on, basically on our own, enjoying the people at the Medical School, especially those in the Biological Research Department. At that time I had a reasonably good background in animal and human virology, the science in which my dad was involved. But in academic science this specialty was not emphasized, and even when we were completing our thesis, we knew that this phase of biological science did not fit our eventual goal. we would need to move on.

"We went back to Berkeley and into our field, Medical Biology. We trained rather quickly. My training was directly with the State Department of Public Health, which had a grant from the Fed-

eral government to train people specializing in medical and refined microbiology. Evelyne was initially funded by the School of Public Health to pursue a parallel program, and later by the Multiple Sclerosis Society. Although we didn't do exactly the same thing, we worked with many of the same people and much of our work overlapped."

David's next problem was to find a place where both of them could get jobs. This spot turned out to be Philadelphia, and they bought a house in neighboring southern New Jersey. New Jersey is called the "Garden State", but they didn't like the appearance of the large, untidy lawn and the few shrubs on their property. When they decided to do something about it, however, they found the soil to be extremely heavy clay.

"At that time I was teaching, and one of my students was very knowledgeable about organic gardening. I learned much from him. We practiced some organic methods, even collecting lawn clippings from our neighbors, who had previously had them hauled away. When lawn clippings were added to our compost heap, the temperature immediately went up several degrees. We added this compost to our clay soil and, within three years, the soil was loose and manageable, quite different from the hard texture at the start of our amendments.

"At that time we were more interested in vegetables and fruits than in flowers, and tested some amaranth species to see which might be suitable as garden subjects, both for foliage and as food. One of the bonuses of this study was watching the cardinal birds come to feed on the amaranth, which were like candy to them. The birds were so beautiful!

"Our University jobs were demanding but, though serving as a continuing apprenticeship, did not enable us to work together on collaborative projects. So when I was told, after 5 years in the east, that I would be transferred to another area inconvenient to our home, it seemed a good time to move back to the Bay Area and pursue our goal of opening our own laboratory."

This move occurred at the end of summer in 1980, when David and Evelyne finally moved into their own laboratory. For the first three years it demanded their undivided attention, and most of their horticultural projects had to be placed on hold.

In the mean time they had purchased a home in Alameda, and for the first 4 years concentrated on controlling the weeds. "We purchased plants from nurseries, trying first some of the plants such as rhododendrons which my family had grown. Our garden was conventional in the sense that they were plants that most people would find in their neighborhood nurseries.

"We first became interested in irises in the spring of 1986, when we saw a symposium article on Pacific Coast irises in *Pacific Horticulture*. Subsequent to that we bought some PCIs in 1-gallon pots from Magic Gardens. I asked about them at the nursery and found that they were mixed colors and they were rejects from a fellow down in Santa Cruz who hybridizes them. We grew about 12 of them. They were beautiful when they bloomed, and they were different from the more familiar iris flowers we had always been accustomed to. In addition there was something indefinable about the fact that they were 'native' plants. We had always thought of wild flowers as some that wouldn't do well captured in garden situations.

"Then in 1986, after initial inquiries to Lewis and Adele Lawyer as to the availability of the "magical" blue iris, we joined the American Iris Society and the local Sydney B. Mitchell Iris Society.

"Being interested in iris we probably would have slowly tried all the different types of iris over the years in our small home garden. But a space became available near our laboratory in Berkeley and we decided to buy it so that we would have more garden space. Coincident to this, the local iris society was planning a regional spring show the following year and needed more gardens for guest iris. We offered to provide it."

Having had a previous negative experience working with a landscape architect on the courtyard at their laboratory, they were apprehensive in their search for the person who would pilot this new project. "We went on a Pacific Horticulture Garden tour around this time, in which we visited Harland Hand's garden. Meeting Harland Hand, we felt for the first time that here was some one we would like to have design our garden. We felt that this time we would be comfortable working with him."

Their hunch proved to be correct. Although Harland was not the only contractor involved, it turned out that every



Pavilion overlooking the Lennette *Urban Oasis*, April, 1988

one worked well together, and, with only minor hitches, their new garden was completed on schedule.

We are planning a visit to their garden on the second day of the 1994 Expedition. It is basically a Rock Garden, with niches for small plants and various tiers. Stone benches have been built in strategic places to view plants, and a pavilion over the pool and bog areas is one of the many spectacular sites from which to look out on the garden. Because it is located in an

industrial area, it has been named *The Urban Oasis*.

Although the garden was very much admired at the 1988 Spring Regional its first year, it should be even better for us now that the plants have had a chance to grow. We are in for a real treat, and, though many of us have met them on previous Expeditions, we will now have a chance to visit the Lennettes in their own garden and see what happened when two scientists got interested in iris.

CHANGES IN THE MITCHELL AWARD

Vernon Wood will receive the Mitchell Medal for 1993, although he also received it for the same introduction, MIMSEY, in 1992. This is because of a change in the American Iris Society awards structure.

Before our society originated the Mitchell Award, a *Californicae* iris could first gain special recognition by receiving an HM (Honorable Mention). The next step upward was an AM (Award of Merit). The Mitchell Medal was instituted in 1979 and it was equivalent to the AM.

Starting this year, each bearded and beardless iris type recognized by AIS will have a Medal. The winner of one of these medals is in a new class, above that of an AM, and will be eligible to compete for the

Dykes Medal. MIMSEY thus becomes the first recipient of the Mitchell Medal under the new system.

The sequence for awards which pertain to Pacificas, is described in the April 1993 AIS Bulletin.

Beardless iris are eligible to receive an HM award 3 years after introduction, and will be listed on the ballot for 3 years. Two years after receiving an HM, varieties will be eligible for an AM, and will remain eligible for 3 years. Eligibility for a medal begins 2 years after receiving an AM, and continues for 3 years.

All Special Medal winners become eligible for the Dykes Medal the year following the Special Medal award and remain

eligible for 3 years. One vote is allowed, and the medal winner receiving the largest number of votes wins the Dykes.

This year, SIERRA DELL (L.Lawyer '88) and FORT POINT (V.Wood '87) became the first recipients of the AM award under the new system.

It is unlikely that a Pacifica will win the Dykes anytime in the foreseeable future. But if Joe Ghio and other hybridizers continue to create showy blooms in every color of the rainbow, and increase their hardiness, we just might wiggle a foot in the door

RESEARCH ON PACIFIC COAST IRISES

The following article is reprinted from Fremontia, Volume 22, No. 2, a publication of the California Native Plant Society. Ned Young applied for and received funding for the study described, which overlaps research being conducted by Carol Wilson, who has received funding from SPCNI and AIS.

PACIFIC COAST IRISES

My goals are to construct a phylogeny of the Pacific Coast irises and to study naturally occurring hybridization within the group. I have made substantial progress on three fronts.

I have personally made collections of all fourteen named taxa in the *Iris* Section Californicae. I sent leaf samples to Ithaca, New York, where they were stored at -80° Centigrade until I returned. I have succeeded in extracting DNA out of individuals of all fourteen taxa.

I have begun to generate DNA sequences for each of these individuals. I am using a chloroplast DNA region that is located between two genes (rbcL and atpB). Since it does not code for any gene product, this region is expected to be more variable. This sequence data will be used in a cladistic analysis of the group.

I am also examining the hybrid zones between species in this group. I have generated three nuclear markers and one chloroplast marker that distinguish *Iris douglasiana* from *Iris innominata*. I have begun to map out the *douglasiana* / *innominata* hybrid zone for each of these four markers.

Thank you again for your generous grant.

Ned Young
Ecology & Systematics
Cornell University
Ithaca, N.Y. 14853

EXPEDITION 1994

April 2, 3, 1994

Adele Lawyer

For the first time since the SPCNI Expeditions were inaugurated in 1989, a full day of garden visits will be included on the itinerary. The first day of this year's excursion will be spent as usual seeing iris in the wild, but on the second day we will visit five private gardens. Primary inducement for this change in focus was the chance to see Joe Ghio's hybridizing haven at Santa Cruz, which is not ordinarily open to the public.

Louis and Caroline Fry, our Seed Distribution Chairmen, are largely responsible for suggesting locations to see the wild iris, as well as recommending the best available accommodations for lodging in their home area, Marin County, California.

We will headquarter at The Courtyard by Marriott, at Larkspur Landing Circle in Larkspur. This location is ideally situated for visitors to the Bay Area. It is in an upscale complex of restaurants and shops, including an excellent book store called *A Clean Well-lighted Place for Books*. The Marin Airporter is located here, and it goes back and forth to the San Francisco airport every half hour. Another reason for out-of-area visitors to leave their cars home is the ferry to San Francisco, which docks right across the street. If you extend your trip on either end, you would not need a car, since the ferry goes right to "The City", where everything is happening, starting right there adjoining the landing site.

On day one, Saturday, April 2, 1994, we will look at many colors of *I. douglasiana* at Deer Park in Fairfax, along with many other wild flowers. Point Reyes National Shoreline's Bear Valley Visitor Center is another interesting stop, with books, maps, and an earthquake trail. We will go on to see drifts of *I. macrosiphon* on the grounds of Indian Valley College in Novato.

We found out after we picked the best date for both *douglasiana* and Joe Ghio's peak bloom, that the weekend we chose included "Easter Sunday". On that day we will head straight for Bayview Gardens in Santa Cruz. In addition to satisfying our appetite for sensational developments in the form and color of Pacificas, we will have the pleasure of meeting the most exuberant, enthusiastic, personable plant breeder anywhere. The roses and cymbidiums he grows may possibly be in bloom at that time, also.

We then go on to visit Gigi Hall's garden in Fremont. Our past president grows almost all classes of irises well, and wins many awards at the show table.

Lewis and Adele's garden is next. Blue Pacificas are the specialty of the house; but a large collection of old and new PCIs populate their property, including varieties introduced by Aitken, Ghio, Jones, Marchant, Meek, Weiler, and Wood. Other garden flowers compliment the iris.

Vernon Wood, a talented breeder of tall bearded and median irises, as well as PCIs, is also on the itinerary. His MIMSEY won the Mitchell Award for 1992 and 1993!

David and Evelyne Lennette's beautiful garden, the "Urban Oasis," near their viral laboratory, will be on tour. It was designed by rock garden specialist, Harland Hand, and is pictured on page 6. Here

will be found many types of iris, including bog and water types, along with many other plants, shrubs, and trees.

To reserve space on the 1994 Expedition, please send a check made payable to SPCNI for \$50.00 per person to Adele Lawyer, 4333 Oak Hill Road, Oakland, CA 94605. The payment constitutes full charge for 2 days on the bus, two lunches, and costs involved in planning the trip. Participation is limited to SPCNI members. If you are not a member, please add \$4 to your remittance for a 1-year subscription to our publication, the *Almanac*.

Please let Adele know if a vegetarian lunch is preferred.

Prompt remittance is advised since 35 of those who participated in the 1993 Expedition are already on the waiting list for the 1994 trip. These individuals should also send in their fees, or let me know if they are unable to come. The dates were not set at the time they made the commitment, and Easter weekend scheduling was certainly not anticipated.

In the past, the trip has been limited to 46 persons, a full bus. Due to the good roads involved in the areas we will visit, however, a second bus may be a possibility. Reservations will be confirmed by mail, and necessary details sent to participants as the time of the Expedition draws near.

Reservations at the Courtyard by Marriott should be made by calling the toll-free number 1-800-321-2211. Ask for the Courtyard at Larkspur Landing and identify association with SPCNI. The cut-off date is March 18, 1994, after which our rooms will be released. Rates are \$83. single or double, plus tax. If you would like to locate a roommate please let Adele know.

1993 EXPEDITION IN REVIEW

When Lewis and Adele Lawyer, and Dick Kiyomoto arrived at Grant's Pass a couple of days in advance of the starting day of the 1993 Expedition, they met J. D. Lawrence of Woodland, Washington, who had already pre-explored parts of the planned route. Because of the heavy snows, Lawrence told us, plant growth was later than usual at the higher elevations which we had planned to visit, and the iris were not yet in bloom. It was panic time for Adele, who is never calm in the

face of tasks for which she feels responsible. "What! We can't go over the top from Whiskey Creek to Patrick Creek! Not see masses of iris in Eden Valley!"

But Lawrence had calmly explored alternate routes, and the next day, the day before the Expedition, she led us along roads at lower elevations where we chose the best places for the bus to stop along the way. By the end of the day Adele was relaxed, confident that the trip would turn out well, and happy to greet the fellow

travelers who had checked into the Riverside Inn.

Our bus was full when we headed out in the morning. One car driven by the Hill family followed, and two additional people accompanied us on the second day. We were glad to have botanist, Wayne Roderick aboard again to identify flowers and shrubs with which we were not familiar. We drove north on I-5 a couple of miles to the Merlin turn off,

and then west through Merlin to the Merlin-Galice road which parallels the Rogue River. *Chrysophylla* flowers were spotted here and there on both sides of the bus.

About half way between Merlin and Galice, the road crossed the river which was then on our right, and huge black cliffs bordered the left side of the road. This was our first stop. The bus driver let us off, and then drove ahead for a quarter mile or so to wait for us. The cliff was a



Group at black cliff

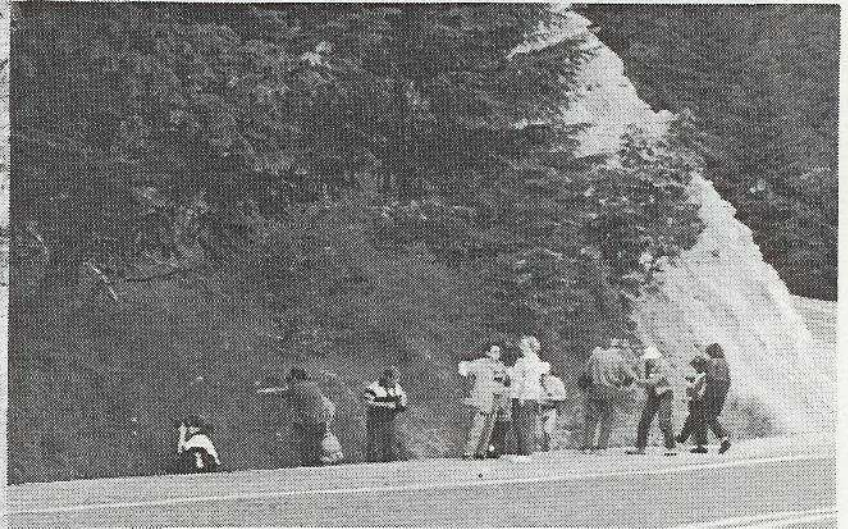
sensational backdrop for photographing the many plants and flowers inhabiting its crevices and at its base. In addition to *I. chrysophylla*, we found many cliff dwellers, among them sedums, some blue delphiniums, and a beautiful specimen plant of the scarlet flowered *Delphinium nudicaule*. At stops farther along, *I. in-nominata's* bright yellow-orange face gradually replaced *I. chrysophylla* as the dominant native iris.

We crossed back over the Rogue River at Grave Creek, and turned left up a steep grade on Mt. Reuben Road for a half mile or so, where, overlooking the Rogue far below, we stopped for lunch at a wide spot on the road. On the upper side of the road

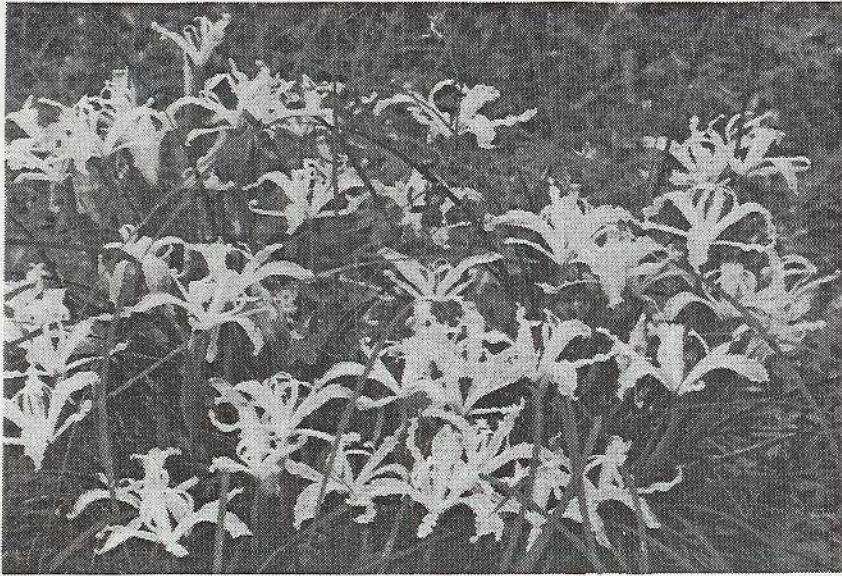


Photo by Mary Ralston

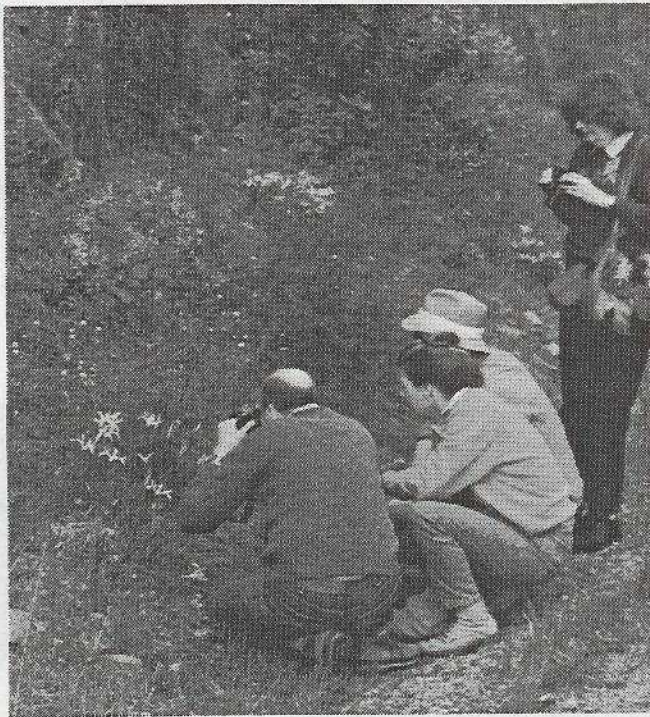
Jean Witt listens to words of wisdom



Traffic on the Merlin Galice road is light enough to make photography a fairly safe avocation



Iris chrysophylla, Merlin-Galice Road



Photography is one of the many interests of our group, and we try to allow as much time as needed at each stop.

Here we see David Lennette, Kim Blaxland, Gene Loop, and Barbara Flynn taking advantage of this policy.

we found a little tree-lined meadow which was an ideal lunch area, and just across the road on a gentle slope leading down toward the river, was a wonderful field of *innominata*. A large proportion of the iris clumps here had flowers tinged with bronze. and, although there weren't thousands of plants such as those we had planned on seeing at China Flat, every specimen had some special quality making it a treat for the eyes.

After taking our full of photographs, the bus was turned around and we drove east along Graves Creek to I-5 and north to the Cow Creek Loop which starts at Glendale. The primary stop here was to see a swarm of inter-specific crosses between *I. tenax* and *I. chrysophylla*. Besides the diversity of color and pattern in these hybrids, we were fortunate in spotting two specimens having the Valley Banner pattern. This was our last stop before heading back to Grant's Pass.

Most of us had dinner in the Riverside's restaurant overlooking the Rogue, and afterwards had a meeting in their visitor's center. Here, SPCNI news was updated, and some fine slides of past Expeditions were shown by R. D. Kenitzer, Glenn Corlew, Ted Kipping, and Lewis Lawyer.

On Sunday we went southwest on 199 to O'Brien and turned onto County Highway 5560, which becomes National Forest Road 4407. This leads to the Whiskey Creek area, which was a memorable stop on our first Expedition in 1989. This time, we stopped the bus as soon as the fields of wildflowers were too intriguing to pass by. This was shortly after the road ceased to be paved and became gravel.

Continued on page 12

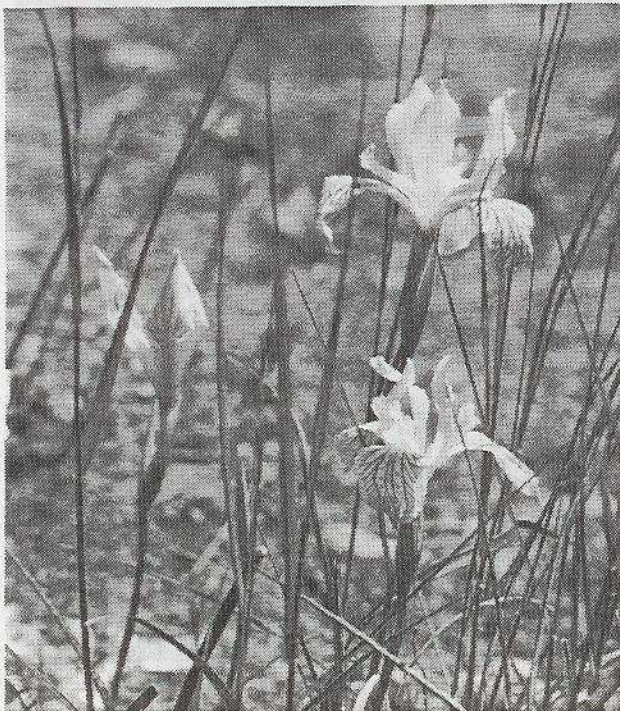


Above: One of the many bright yellow-orange flowered clumps of innominata



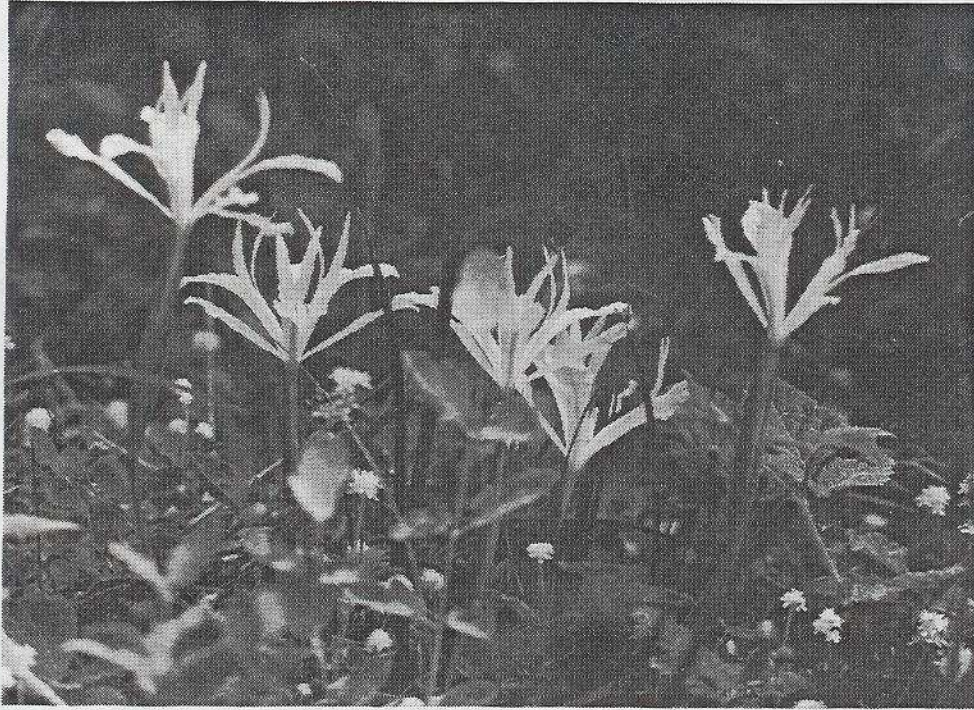
Above: Close-up of a handsome innominata flower with a diffused bronze veining

Below: An interesting clump with long, very narrow leaves, giving the plant a rush-like appearance, emphasized by its tall, graceful flower stalks.



Since the ground was relatively flat, this was an ideal area for both looking and photography.

The flowers and plants were sufficiently varied so that each place you looked presented a new composition of color and pattern. We were particularly impressed by the rush-like appearance of the plant pictured to the left, but equally memorable was a set of three bright yellow-bronze flowers peering through the boughs of a young cedar tree.



Frilly appearance of *Iris chrysophylla*
found along the Cow Creek Loop Road

It was as beautiful in *Iris bracteata* country this time as it was previously. The bus stayed with those who lingered longest, moving ahead slowly. Other members of the group walked ahead at their own pace to take as much time as they needed in each area of interest.

Walking about a half mile ahead of the bus stop, we came upon Evelyn and Bennett Jones along with Lewis Lawyer standing by the side of the road. They had discovered a magnificent specimen of *Iris bracteata* on the slope of a hill and didn't want anyone to miss seeing it. The plant, pictured at the right, was vigorous, and the flower, pictured in color on the next page, seemed larger and wider petaled than most bracteata. The falls were typically veined with red-purple, but in addition, a wash of this brilliant color overlaid a generous portion of the tips of each fall! It was as though the color of the bracts had gone wild and climbed into the falls!

When the bus arrived, everyone came to see this specimen. Carla Lankow had the inspiration to self it. She did so, with Gigi Hall offering pointers on technique, and a crowd of us gathered around. The bus driver observed our peculiar behavior and said, "Hey, that looks like rape to me!"

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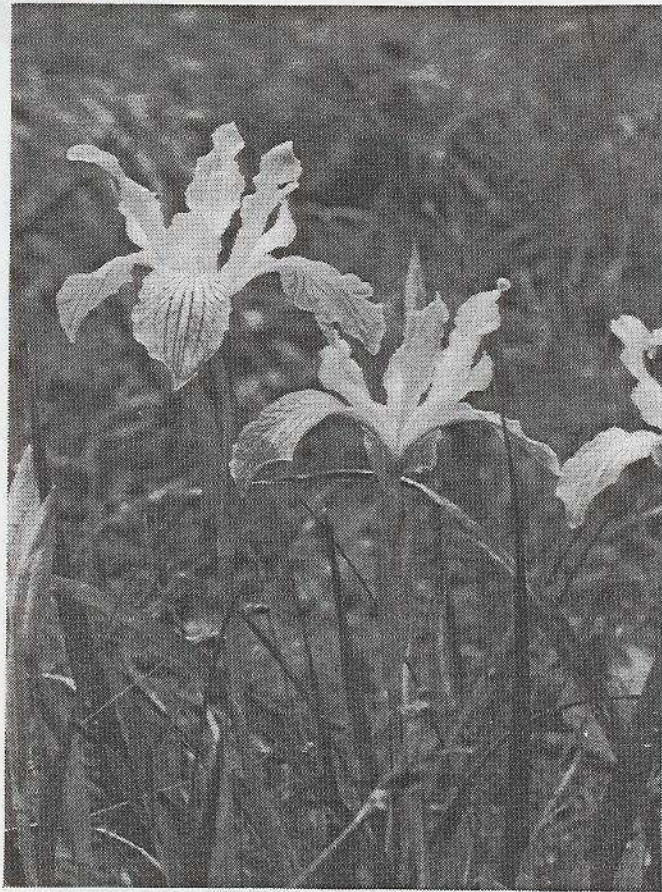


Photo by Mary Ralston
This photo of the "special" bracteata plant
shows its vigor and good substance.

Obviously the bus driver was right. The flower might have been pollinated by its plebeian nearest neighbor if we hadn't come by.

The Whiskey Creek area is always spectacular and this visit was no exception. There were fewer pink phlox but many more specimens of *Lewisia oppositifolia* accompanying the iris than there were on our previous trek. There were two types of violas which had not been in bloom on our first trip, *Viola cuneata* and *V. hallii*, both white but with distinctly different markings. The bright yellow, *Viola lobata* was also present in profusion. *Silene hookeri*, in pastel pink and salmon, and purple *Allium falcifolium* were even more numerous than before. Bright red castillejas and yellow daisies, (*Balsamorhiza hookeri*), sparked the landscape.

We enjoyed seeing Kim Blaxland's delight when she saw the violas, and Jean Witt's excitement upon seeing bracteata in the wild for the first time. And of course,

each of us were similarly stimulated so that there was a contagion of exhilaration.

Eventually we arrived at the *Darlingtonia californicae* site and these cobra-like, carnivorous plants were cascading by the thousands down a seepage hill and also populated the bogs below, - an overwhelming spectacle. This was close to the Whiskey Creek bridge where we stopped for lunch. Most of us were perched on boulders either in the river or beside it, with the sound of the rushing water as dinner music.

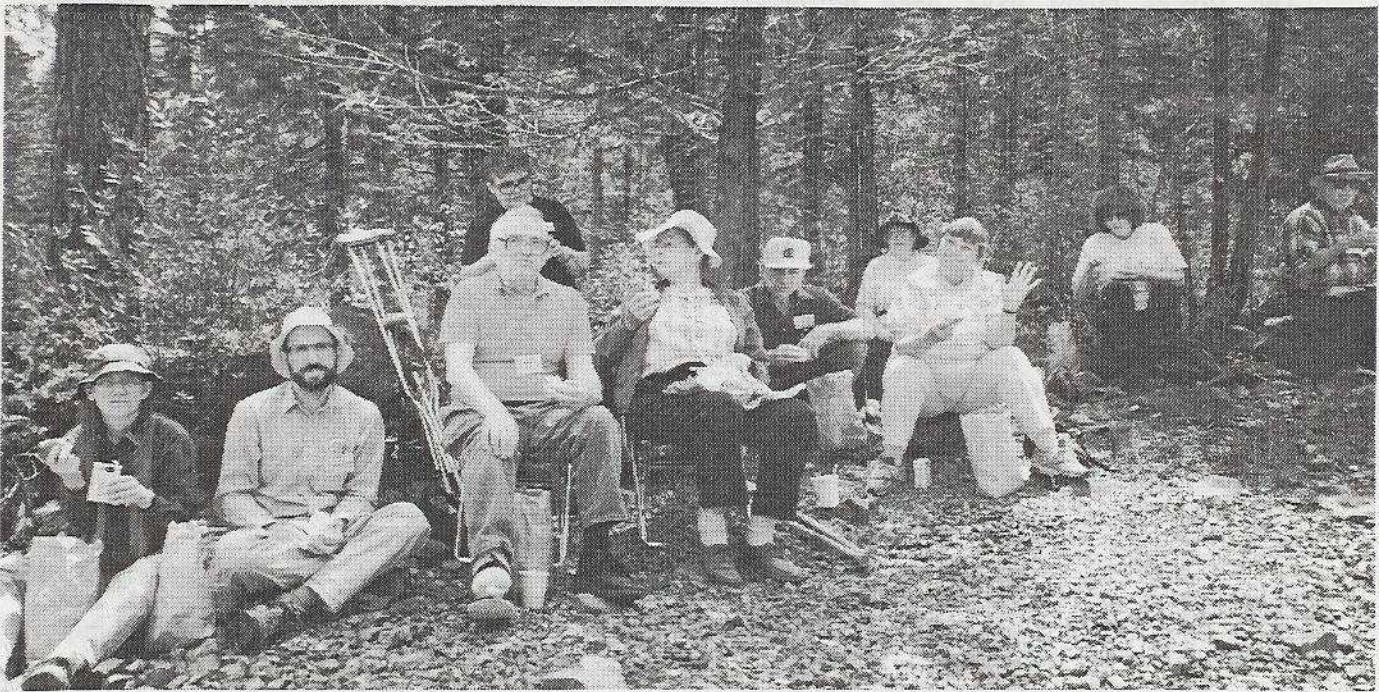
Instead of proceeding on this road over the top of a grade and down to Patrick's Creek as originally planned, we turned back the way we came onto Highway 199 and stopped at Rough and Ready Botanical Wayside. There were few accompanying flowers here, but bracteata was in profusion in this dry, open, wooded area. Its showy bracts in varied intensities of red made each individual clump of interest.



Kodacolor negative from a slide by Glenn Corlew

The "special" bracteata flower

WHISKEY CREEK LUNCH STOP



Above: Mary and Ed Ralston, John and Pat Bender, Jean Witt, George and Carla Lankow, Charlotte Keasey, Barbara Flynn, and Ed Hill.



Above: Damon and Elyse Hill, Marjorie Murray, Larry Moss, Evelyn and Bennett Jones, Karen Angel Moss, our bus driver on the bank of Whiskey Creek.

Right: Wayne Roderick, our botanical advisor, Gen and Hal Mattos, and Phyllis Gustafson.



Photographs by Teresa Rigby.

From this spot, Phyllis Gustafson led us to the last stop on our trip, a boggy area on a road east of the highway. There we saw many *Calochortus nudus*, the dainty and smooth, pale lavender-pink calochortus, which most of us had never seen before.

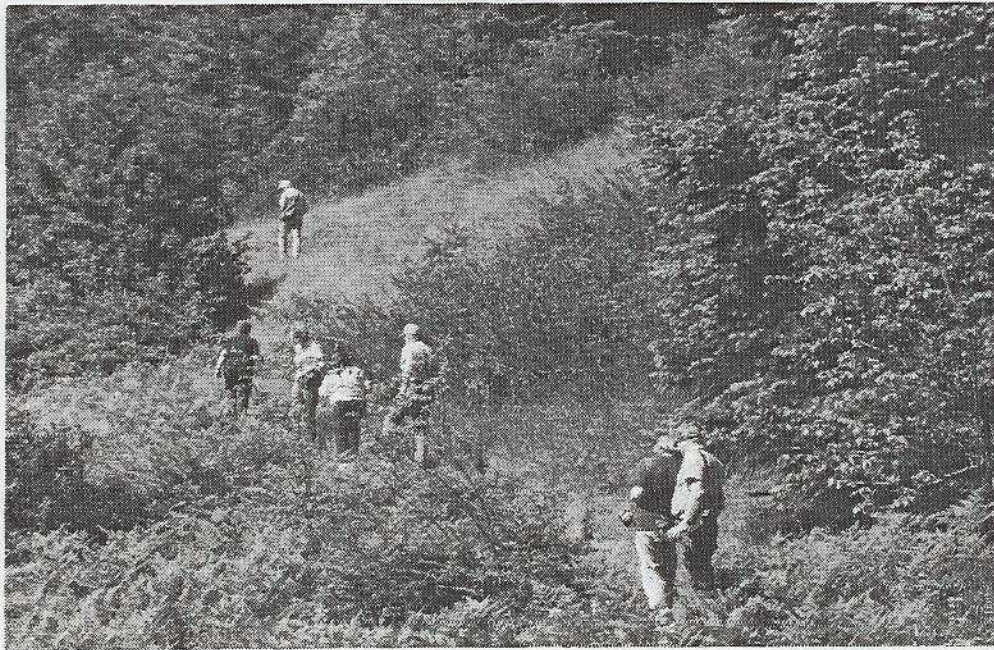
It was back to our head-quarters at Grants Pass then. Most of our group had a hurried dinner and went to Medford to enjoy hearing a program presented by Ted Kipping for the Siskiyou Chapter of the American Rock Garden Society. His slide show, titled, "The Wild Flowers of Switzerland" was beautifully photographed, as usual. We were pleased and surprised to see our bus driver and his wife in the audience. Our group had made a convert to the love of wild flowers!

Editor's note: The preceding article serves as a habitat location guide for *Ii. chrysophylla*, *innominata*, *bracteata*, and



Joanne Derr and Kim Blaxland

tenax seen on this trip. Seed for distribution has been collected from these species and is listed in this issue. Also note that Lawrence has also collected seed of *I. tenax* subs. *klamathensis* and *I. thompsonii*, which we enjoyed seeing on the 1992 trip. Please refrain from digging any plants if you visit these sites. It is the policy of our society to preserve Pacific Coast native iris in the wild as far as possible, although roads and dwellings are closing in upon their habitats



It was fun!

ELECTRONIC ROBINS

Diane Whitehead, Victoria, B. C.

I was just checking my files for information on breaking up a large clump of iris, when I noticed the source of my information - Jean Witt, from an AIS species iris robin that flew about 1968. It has brought back all the exhilaration of my beginning interest in iris. The quarterly journals were full of information about people I didn't know, but the robins were small and personal. The robin director added my name and address to a group with some interests in common, and I received a large manila envelope of letters and photographs. I had promised that I would read the letters, add one of my own, and send it flying within a short time. The next time it came around to me, all the letters were new except for mine, which I replaced with a new one. The robin arrived several times a year. One person in the group would copy anything noteworthy and send it to the AIS for publication.

Last week, I was reading some letters on my computer, and one was from the current AIS robin director, saying that the robins haven't been flying as well as before, so could we have an electronic robin? There were about a half a dozen replies posted so everyone could read them, and presumably some answers sent privately to her as well.

These electronic robins have some features in common with mailed robins. Letters are read by a group of people, although now thousands of people anywhere in the world can read them. The letters are distributed along phone lines, and stored in large computers anywhere there is a college or university. In order to read them, you need a computer that is connected to a phone line with a modem. This is a relatively inexpensive "telephone" which makes it possible for computers to talk to each other. I use my computer at home, but some of the letters are obviously sent from computers at work. A third possibility is available wherever there are FreeNets, which provide free public access to computer networks. Computers in these cities are available at public libraries, community centers, and some schools.

There is such a high volume of mail on these networks that the letters are stored for a short time only, usually between one and seven days. If you don't call, (log on), to the network regularly, you will miss a lot.

One way to be sure of getting all the letters you are interested in is to have them sent to you via electronic mail, (E-Mail), rather than having them posted on the net. This is like having a letter sent to you personally, rather than having a note thumbtacked to the noticeboard in your shopping mall. Your letter will be saved on the same large computer that temporarily stores the posted letters; but it will stay there until you have time to read it.

It is possible to write a letter and E-mail it to a group of people. This would be like the old-fashioned robin, but faster. I have had answers to gardening questions within the hour. It is cheaper, too. If you live in a city that has access to a network, it will cost you nothing. If you don't, you will have to pay a long-distance charge to the nearest such city. The only disadvantage I can think of is that we can't send photos.

Who else is interested in forming an electronic PCI robin? If you already have an electronic address, include it when you renew your membership. If you don't, see if your community college offers a telecommunications course.

Diane Whitehead
dwhite@cue,bc,ca

Editor's Note: Diane's other address is 5088 Clutesi Street, Victoria, B.C. V8Y 1X4, Canada. Please contact her directly if you are interested. At the present we do not have the facilities for that type of activity, and the the burden of other responsibilities makes it difficult for us to find the time to adequately promote such a program. We are interested, however, and would appreciate being kept in touch with any developments. We will report such information by a very slow route in the Spring Almanac.

BEFORE YOU APPLY FERTILIZERS

Lewis Lawyer

By and large, plants will survive in our gardens without any additional fertilization. Even in the Pygmy Forest of Mendocino County, California, which is so near sterile that it commands national attention, plants do survive.

Mere survival, however, is only one of the aspirations we have for our plants. Fertilizers are universally applied to food crops to increase production, a necessity in these times of ever-increasing population. In the same spirit we apply fertilizers to our garden flowers to make them, heaven forbid, larger and more lush than even our wildest hybridizers visualized. Pacificas probably require less attention than most of our flowers, but still we feel obligated to toss an occasional handful of fertilizer toward them. We repeatedly get questions about this problem, and a few years ago, I wrote an article for the Region 14, AIS, Bulletin, not to answer specific questions, but to present some facts about fertilizers which would make it easier for each of us to decide for ourselves, when, how, and how much.

To begin with, we should understand something about the soils to which we add these fertilizers, and, unfortunately, soil is one of the most complicated things on earth! Physically, soils can vary in particle size from chunks of rock and sand down to microscopically small platelets of clay. These particles, along with bits and pieces of organic matter, can be juxtaposed and intermixed in such an array of combinations ranging from scree to almost pure clay, adobe, or gumbo that the chances of getting any two shovelfuls alike are infinitely less than lining up the correct 6 of the 49 numbers available in the California Lottery. Chemically soil is so complex that even after centuries of study, no one has yet claimed to completely understand it. Biologically, soils are infested with an abundance of organisms, all interrelated and interdependent and yet at the same time intercompetitive in such a teeming mass that it makes our most complicated factories and assembly lines pale by comparison.

In these stews, the roots of our plants forage for food, and on the whole they do very well, but since we all have the urge

to try to make them do even better, here are a few facts which may help.

It wasn't until the early nineteenth century that de Saussure proposed quite to everyone's surprise, that green plants don't really derive much of their solid matter from the nutrients in soil, but that most of it comes from carbon dioxide in the air. This fact was not easily assimilated, even by scientists, because of the universal belief in the so-called "humus theory of plant nutrition". This theory, which postulated that the food of plants is entirely derived from the brown organic humus in soils, had the weight of centuries of unquestioning acceptance behind it. You can imagine the marching, singing, protesting, and placard-waving of the dedicated organic gardeners of the day when this upstart tried to tell them that no plant on earth could ingest a molecule as large as even the smallest organic molecule in their humus! But the facts are that the dry matter of plants is roughly 45 percent each of carbon and oxygen, and 5 percent hydrogen derived from the air. The nitrogen content varies from less than one percent in woody tissues to as high as 10 percent in some soft tissues. The remaining elements involved, including phosphorus and potassium, which are left behind in the wood ash when plants are burned, represent only 1 to 5 percent of the total.

Why, then, are we so preoccupied with fertilizer applications if they are responsible for only 3 to, at most, 15 percent of the weight of the plants? The answer, of course, is that without the essential elements derived from the soil, there would be no plants at all.

More than 40 elements have been detected in plant tissues. Of these, eleven are considered essential to all plants, and three more are known to be essential to some plants. Of the elements supplied through the soil, nitrogen, sulfur, phosphorus, chlorine, potassium, calcium, magnesium, and iron are, in the order listed, the most abundant in plant tissue.

In a discussion of fertilizer practices, there are four important items which we should consider. The first has to do with the physical properties of the soil. In the wild the PCI tend to grow in loose or

gravely soils, not always, but usually. We are stuck with the soil type in our garden, but we can usually amend it to more closely fit the requirements of some particular plant we want to grow there. Gravely screes and sandy soils are much more pervious than clays or other heavy soils. Water penetrates easier, but disappears rapidly. Soluble fertilizers are more readily available to plant roots, and over doses tend to burn the plants more than in heavy soils. At the same time, soluble fertilizers tend to leach out of the lighter soils much more rapidly. As a consequence, you should apply fertilizers to these soils more frequently than you do to heavier soils, but in reduced amounts.

The second item for consideration in the application of nutrients to the soil is the type of root involved. Most annuals are shallow rooted and most perennials tend to be deep rooted. There are many exceptions to this: tap-root annuals tend to feed deeply, and many perennials, even some shrubs and trees like the azalea, can be shallow rooted. The PCI have some very deep anchoring roots, but I would guess that most of their feeding is done through the white roots which occupy the top 6 to 8 inches of soil.

The third item has to do with the complex of living organisms which inhabit soils. They are complex enough even without the intrusion of plant roots, but the complexity increases remarkably when a plant root starts to grow among them. Most plant roots or their root hairs exude materials which attract or stimulate the growth of certain minute organisms in the microscopically small area around the root known as the rhizosphere. This colony of organisms help the root hairs, or may even be essential to their absorption of nutrients in the surrounding soil. Although there is little we can do about this phenomenon, it is important that we know about it because it can become crucial following soil fumigation and the resultant change in the balance of the soil organisms.

The fourth factor for consideration has to do with the chemical composition of your soil. Most soils can and do support plant life without any human intrusion. This is humiliating, but it is a fact which you should consider when you are mulling over exactly what you want to accomplish when you apply your manures. Only you can be the judge of this as it applies to your particular soil.

NITROGEN

Nitrogen tops the list of elements supplied to plants through the soil. It can be applied to the soil in any of three forms: nitrate, ammoniacal, or organic. In large commercial operations the primary consideration is cost, and you often see large tractor-drawn equipment injecting pure gaseous ammonia into the soil. In large orchards it will often be supplied in the form of ammonium sulfate. Plants don't care what form of nitrogen you feed them, and a good farmer soon learns that he can save a lot of money by applying the cheapest form available at the time. Until you can show by experimentation that one form of fertilizer or another works best for you, cost per unit of nitrogen is a good starting point on which to base your choice.

The nitrate form of nitrogen can be obtained in several formulations including ammonium nitrate and calcium nitrate. Applied in this form, it can be washed into the root zone with water and is available immediately to the plant root.

Ammoniacal nitrogen is available in many forms including ammonia gas, ammonium sulfate, and urea. Some plant species are known to be able to ingest the large ammonium molecule directly through their roots, but how prevalent this ability is is controversial. Controversy aside, however, we know that all forms of ammoniacal nitrogen are converted to ammonium ion almost immediately after contact with the soil, and that in the ammonium form they bind tightly to the soil and can not be leached to the root zone. It is only after the soil organisms convert the ammonium to nitrate that it moves freely through the soil and become usable to the root.

If you want to pay a little more and get a little less, you can use any of several organic fertilizers. One possible advantage of organic fertilizers is that, because of their more complex structure, it takes a longer time for the soil organisms to break them down to a usable form; thus they may be more slowly available and longer lasting in the soil. In the organic form, however, they are completely useless to plants. Feed lot manures when used in large quantities are useful as a mulch, or a soil amendment, but are a poor source of nutrients, having about one percent each of N, P, and K. The greatest danger is that feed lot manure can have a high salt content and can be the source of

serious weed pests such as nut grass and bindweed.

SULFUR

Sulfur is the second most abundant soil-derived nutrient found in plants. It is seldom deficient in garden soils and under normal conditions we can rely on the sulfates in most garden fertilizers as an adequate source. Sulfur is sometimes used to lower the pH of garden soils to accommodate acid-loving plants such as the PCI. This use should be carefully monitored, but in any case it is not strictly a nutritional consideration.

PHOSPHATES

There are two important characteristics in the behavior of phosphorous fertilizers that will help us plan strategies for its application in our gardens. In the soil, phosphorous is taken up by the plant in the form of phosphate. Phosphate is very active chemically, and readily forms compounds with any available chemical. Because of this, phosphates quickly bond to the soil and do not move from the point of application. The other quality is that only a minute amount of the phosphate dissolves in the soil water at any one time. The good part of this is that the part that does not dissolve cannot be washed from the soil, and a single application can last for months or years.

Since phosphates do not wash through the soil, the roots must grow to where the phosphate is, and even there they find only a very dilute solution of the nutrient. This requires two things: an extensive root system and a strategic placement of phosphorous. The best way to accomplish the latter is to apply phosphate fertilizer before planting and spade or till it into the anticipated root zone. This doesn't mean that the phosphate-containing fertilizers that you broadcast on the soil around your living plants are entirely wasted. There are minute amounts that slowly leach downward, but on the whole, the phosphate simply waits where you have applied it until it is time to replant the bed and it gets tilled into the root zone for the next planting.

Phosphorous fertilizer is commonly available in one of three forms. Rock phosphate, as mined, is almost insoluble, and only slightly available to plants. Superphosphate is rock phosphate which has been treated with acid to make it soluble. It can be purchased in two forms: single superphosphate, and treble superphosphate. The former can be used almost

without any restrictions, but treble superphosphate must be carefully measured to avoid burning the plants. The third form, bone meal, is the organic form of phosphate made from ground bones. Chemically it is almost like rock phosphate and is almost insoluble.

For the record, just before planting PCI, I broadcast a visible amount of single superphosphate over the entire bed and spade it in. For some plantings of PCI and for plantings of individual plants such as tall bearded iris or chrysanthemums, I trowel in about two heaping tablespoons of single superphosphate fertilizer at each plant site.

CHLORINE

The fourth element on our list of plant nutrients, chlorine, is so abundant in soils in the form of chloride, that we worry more about its excess than we do about its deficiency. There is no need to run around your garden with a salt shaker.

POTASSIUM

Potassium (K) is the fifth most abundant soil-derived element found in plants, and third on the list of elements, N, P, and K, contained in complete fertilizers. Potassium is soluble in water, but because it bonds to clay particles and humus in the soil, it is about midway between nitrogen and phosphorous in its availability and persistence. Most western soils have adequate potassium, and a plant response to its application is rarely spectacular if even measurable. There are exceptions to this, however, and heavily-cropped vegetable farms are often deficient. You will have to be the judge of its importance in your particular circumstances.

All potassium fertilizers are mined from the ground, either as potassium sulfate or potassium chloride. They can be bought in these forms, but are usually purchased as part of a complete fertilizer.

MINOR ELEMENTS

All the rest of the soil-derived elements found in plants are usually lumped together under the term minor or trace elements. By and large we need not be concerned with any of them unless a "deficiency symptom" shows up on our plants. There are many books and articles describing these symptoms, but the best solution is to take a representative part of the plant to someone knowledgeable for diagnosis. Someone who can answer your questions is usually available in the County Agricultural Office, the University, or one of the better nurseries.

The most commonly deficient minor element is iron which, despite its possible presence in large amounts, gets tied up in an insoluble form, primarily in alkaline or poorly-drained soils. Zinc deficiency is fairly common in some orchard, especially citrus, plantings. The symptoms of minor element deficiencies usually show as chlorosis or a yellowing of the leaves and can be corrected by the addition of specialty fertilizers including chelates, or by foliar sprays especially formulated for this purpose.

There are also a few areas where excess minor element symptoms can be observed. Examples of this are the excess of boron in the Hollister and Woodland areas of California, and of cadmium in the foothills near Salinas.

DISCUSSION

In most areas where they can be grown, the Pacific Coast iris can be grown without the addition of any fertilizer. If

you desire some spectacular blue ribbon show stalks, however, you will probably benefit by feeding your plants. Also, since we all like to see our plants performing to the best of their ability, the addition of a good nutrient supply will certainly be beneficial. The only disadvantage of fertilizing the PCI which I can think of is that the plants will increase faster, require more space, and thus need transplanting more often. Since the PCI are not the easiest plants to transplant, starving them a little bit will alleviate this problem.

Everyone's garden soil and everyone's goals for their garden are different, and what applies to one person's needs may not apply to another. I hope that this article has given you enough basic information to help you decide what is best for you. There is ample literature on the subject to fill you in on what I have omitted.

A SNOUTFUL OF TROUBLE FOR PACIFICAS

Ed. Note: An article clipped from the Santa Cruz County SENTINEL was sent to us by Joe Ghio. The following information was extracted from that article.

Wild pigs have become the "biggest environmental disaster in Santa Cruz County, California in years, - worse than man, development, logging, or anything", according to Lud McCrary, a ranch owner in the area. They dirty the spring water, coating themselves with mud. With their sturdy snouts, these slim, razor-backed swine flip over rocks and loose logs to get alligator lizards and garter snakes. They root out native plants, including the wild iris, which they eat. They cut narrow, steep paths that, in the winter rains, become eroded gullies.

Quoting the *Sentinel*, "By most reckonings, the problem dates back to 1920, when European pigs were introduced into the Carmel Valley. They crossbred with feral pigs, domestic pigs that had run wild.

"The pigs that made their way into Santa Cruz County around 1984, however, are the wild ones. These were from some of the true wild European stock that was brought down to Monterey for hunting many years ago.

"They are in all the state parks in the county, except the beaches", according to George Gray, resource ecologist with the State Parks and Recreation Department. "They are almost like deer now", he said, but what he didn't say was that deer don't hurt iris.

"Eventually, rules for pig hunting were approved. They can be trapped or shot, and their meat given to a charitable organization. But they can not be poisoned, and the permit, while setting no limit on number taken, is good only for several weeks. Or with a license, they can be hunted during the day, year round, with a limit of one a day.

"Meanwhile, no hunting, trapping, or other pig control is taking place inside the state parks, where the animals have a firm hoof-hold, according to Gray."

Weighing in at 150 pounds or more at maturity, these are certainly the largest pests of native iris the ALMANAC has yet reported. Fortunately they apparently are not endangering the seaside douglasianas, but they are a serious threat to the fernaldii and macrosiphon which populate and beautify the more rural areas of Santa Cruz county. Joe Ghio reports that they are moving north and south into neighboring counties.

HOW MY GARDEN GROWS (Wie Mein Garden Gewachsen)

Bob Ward, Little Rock, Arkansas

Although I live outside the natural growing range of the *Californicae*, I am convinced, after a dozen years of growing these irises with failures and many successes, that these plants can be grown, and offer the following testimony for others who would like to grow them.

Since these irises are root sensitive and it is difficult for divisions to survive, and in some cases they are short-lived, I have found it necessary to divide clones after 3 to 5 years in order to keep them growing. As for the species, these are hand pollinated every year and the seeds are either collected or allowed to germinate at the base of the clump.

Zone seven crosses the middle of Arkansas where Little Rock is located, and it is in this zone that the spring rains start in mid-February, and end in May with up to 25 to 30 inches per season. From the end of May to September and sometimes up to late October, temperatures reach into the 90's. High summer is when problems crop up when the high humidity mixed with rain storms cause some problems with pathogen infections. In order to overcome the problems of rot, most of my irises are grown on slopes which drain off quickly.

All the *Californicae* species are growing here except for *I. tenuissima*. *I. munzii* is into its third season in my garden and is tall, up to 2.5 feet with very

wide leaves at this writing. It is located in a more protected area of the garden.

Because of much rain, it was difficult to hybridize or take good photos, although I was able to take a few pictures for the Lawyers. Also, this was the first time that I was able to remove many seedlings to make room for improved ones. The improvement came through use of seed from crosses made in Dick Richards' Southern California garden. These were outcrossed to clones from the gardens of Jean Witt, and of Rigby and Erickson of Portable Acres.

The following Pacificas bloomed this year in my garden: AGNESS JAMES, CHIMES, WESTERN QUEEN, SIERRA DELL, GARDEN DELIGHT, HONTA YO, SUSIE KNAPP, MINA-MA, BANBURY MELODY, RED BLUFF, DAVID WARD, SHAMAYIM, WOLKENTANZ, and several new ones.

How does one learn to grow the Pacificas? Do like Moses! Go up to the mountains, (hills), and see them bake in the sun and grow in "cement" soils. Then come down from the hills, go home, and do likewise! [Ed. note: This refers to Bob Ward's participation in Expedition '92, when he accompanied us to the dry hills where unpampered Pacificas thrived.]

The bloom time for the Pacificas at 54 Belmont Drive in Little Rock begins in April and ends in the latter part of May. All are welcome. WILLKOMMEN!

LETTERS FROM MEMBERS

Farron Campbell, Garland, Texas

Ed. Note: Mr. Campbell is a Life member of SPCNI. Bob Ward, the Central U.S. Representative, has not heard from him recently, but when he started planting Pacific Coast natives, he used a planting technique different from any we had heard used for this plant, and his problem after emergence involved a pest not previously reported as significant to PCIs.

My PCI's have just been put out in beds. I have never seen a PCI in bloom,

except in photographs, but I just finished planting out some seedlings that were started last winter in the greenhouse. A nurseryman friend who is a SPCNI member had the seeds and wanted me to see if they would germinate. He had acquired them several years ago and they had been kept in his freezer.

I soaked the seeds overnight in water and removed the outer coats before planting. I planted 10 seeds per pot, and was surprised that I achieved about 80 percent germination. When the seedlings reached 1 inch, I pricked them out and

transplanted them into individual 4 inch pots. I thought I would have around 100 seedlings to plant out this fall, but I experienced major losses due to spider mites. I tried a number of products to no avail. Finally I got my hands on some Kelthane, and the problem was soon under control; but the loss of seedlings was about 90 percent. I had seedlings of other types of iris growing alongside the PCI's, but the other iris types were not bothered by mites.

The 12 PCI seedlings that survived are planted in a bed against the house with an eastern exposure. Only time will tell if the PCI iris will grow in our North Texas climate.

Larry Moss, Trinidad, California

On May 23 Karen and I went PCI watching at the meadows in Patrick's Point State Park. (This is the place I had hoped to lead the group during the 1992 Expedition, but the iris were finished.) We saw thousands of *I. douglasiana* in a multitude of shades, - perhaps the most profuse bloom of PCI I've ever seen. The most interesting iris was one that is bright blue. It was in a very boggy area. It will be interesting to see if the flowers keep their blue, or if the brilliance is due to some environmental condition. If the blue is true, the plants should be used in hybridization.

Ed. Note: Even if the iris Larry and Karen located does not retain its hue, the fact that it is adapted to boggy conditions may indicate it could have resistance to the water mold fungus which is damaging in many of our gardens. Hope we can collect some seed. of this one, both for the blue and for the resistance.

*Dr. Lee Lenz also told us of a PCI he found blooming in a bog. Although it was in a similar location, he could not pinpoint the area. Lenz also said he saw a really blue *I. macrosiphon* in the Boonville area, but we have not yet been able to find it.*

Nicholas Di Oro, Garberville, CA

I noticed with interest, in the spring '93 issue of the ALMANAC, an article by Kenneth Hixson regarding his difficulty in obtaining a reliable *I. purdyi* seed source.

Just days after its reading, I stumbled across the most enormous patch of native iris I've ever seen near my remote home in the mountains of northern Mendocino County.

In an attempt at identification I searched my limited literature and came across the cover photo of the July 1992 AIS Bulletin featuring *I. purdyi*. The flowers appeared identical.

This plant appears in remarkable profusion here, and seeds can be made available.

Ed note: We contacted Nicholas regarding his find. It is in the heart of purdyi country and could be a good source of I. purdyi seed for the many SPCNI members who have requested it.

B. Charles Jenkins, Scottsdale, AZ

We moved from Salinas, California exactly a year ago in September. I first thought I would have to give up my interest in PCI's. On a trip back to Salinas in January of this year, I brought 32 cultivars in pots to Arizona. They were set directly in the ground on the east side of a west wall between houses, where there is only about two hours of direct sunlight each day. All but one or two bloomed at the usual time, but there have been some casualties during the heat of the summer which have not been fully assessed at this time. One interesting observation seems to be emerging, and that is that *munzii* heritage gives better survival value. This is certainly true in seedlings I started here from crosses involving your SIERRA DELL.

Helen Kennedy, Surrey, B. C., Canada

I had more success this year with the PCIs. Nearly all from Aitken's Gardens established, and three quarters of those from Bayview Gardens. Those from Aitken's were dug, and within 24 hours, they were in the ground at Surrey. We had snow cover here, whereas Terry and Barbara Aitken didn't. (The snow was an advantage for my location.) Several flowered their first year, and almost all of the 2-year plants did. About 12 of them bloomed. AGE OF CHIVALRY was especially large and nice. For color and texture (sheen), NIGHT EDITOR was my favorite. I don't envy the judges!

I hope you are thinking of a PCI book down the road, incorporating your photos or having pictures printed up as in the Aitken's or Ghio's catalogues. Timber Press would be a good possibility. You've written a lot on culture and diseases already, and it could be incorporated with only minor editing I should think.

David Iwane, Seattle, WA

I was very excited to see one of the two PCIs that survived the winter, bloom for me in the spring, and with two blooms on a stalk! It was NIGHT EDITOR. SIMPLY WILD was the other of the five I started with last year that lived through the cold. I ordered my PCIs from Portable Acres this summer and I requested an April delivery. I hope this will make my survival rate higher.

Garland Bare, Lincoln, Nebraska

The winter of 1992-93 was the longest and coldest in Nebraska in more than a decade. Snow was on the ground most of the time from November into March. Would the PCI seedlings survive all those sub-zero days in December and January?

NIGHT EDITOR seedlings are especially vigorous. Two of the Boswell clumps and one Night Editor open-pollinated cross

look healthy enough to bloom. MONTARA seedlings are in rather poor shape, but hope they will pull through.

Following is a summary of the survival:

	<u>Survival</u>	
	<u>Nov</u>	<u>Apr</u>
<u>Two Year Planting in Garden</u>		
Boswell Seedlings	4	4
<u>One Year Planting in Garden</u>		
Montara x Unknown	3	2
Night Editor x Unknown	2	2
Pacific Rim x Unknown	1	0
<u>Planted in Pots in Window Well</u>		
Montara x Unknown	2	1
Pacific Rim x Unknown	2	1
Night Editor x Unknown	1	1
<i>I. hartwegii</i>	1	0
TOTAL	16	11

SOURCES OF PCI MAIL ORDER PLANTS

Aitken's Salmon Creek Garden (Terry & Barbara Aitken), 608 NW 119 Street, Vancouver, WA 98685. (206)573-4472. Catalog \$1.00 Pacific Coast iris hybrids

Bay View Gardens (Joe Ghio) 1201 Bay Street, Santa Cruz, CA 95060. (408) 423-3656. Catalog \$1.00 Mostly Ghio hybrids.

D & J Iris Gardens (Duane and Joyce Meek), 7872 Howell Prairie Road, NE, Silverton, OR 97381. (503) 873-7603. Send SASE for PCI listing.

Millar Mountain Nursery (Kathy Millar), 5086 McLay Rd., R.R. 3, Duncan, B.C., Canada V9L 2X1.(504) 748-0487. 5 PCIs listed plus other species iris.

Portable Acres (Colin Rigby) 2087 Curtis Drive, Penngrove, CA 94951. (707) 795-5851. Catalog \$1.00 Source of hybrids and species native iris.

Rialto Gardens (John Weiler), 1146 W. Rialto, Fresno, CA 93705. Send for listing of hybrids of Pacific Coast native irises.

ERRORS IN SPRING 1993 ALMANAC

Your editor was responsible for botching a photo credit in the article on Dora Sparrow on page 13 of the Spring 1993 ALMANAC. This happened when we confused two sets of pictures sent to us by Louis Fry. The picture on page 13 is Bob Potterton's greenhouse and potting area, not Dora's. A letter from Bob, of Caistor, England was included on Page 14, and that is where the photo should have been placed.

We are sorry for the error and apologized to Mr. Potterton for moving his propagating area almost exactly half way around the world. He replied that we may have been further confused because his property is named *Kiwi* "in recognition of the wonderful memories I have of a 5-

month visit spent in New Zealand. A truly wonderful and fascinating country." He notes that the seed frame pictured is growing New Zealand native alpine plants as well as PCIs.

Bob Potterton had also sent additional pictures of his home, with and without snow, which were not printed in the *Almanac*. All other facts in the article concerning Dora Sparrow are correct.

There was also a typo error on page 20 of the PCI Check List update. The second variety on the page should be GREENAN GOLD. Please make the correction. Duane Meek has named this lovely variety appropriately. It has a dash of true green in the midst of the gold.

NEW MEMBERS and ADDRESS CHANGES

NEW MEMBERS UNITED STATES

Bare, Garland
1320 Carlos Drive,
Lincoln, NE 68505

Bearden, Ray
35912
Madera, CA 93638

Belardi, Jack & Lois
209 Linden Street,
Santa Cruz, CA 95062

Bluhm, Wilbur L.
743 Linda Avenue N.E.,
Salem OR 97303

Butt, Sheldon H.
1904 Arrowhead Lane,
Godfrey, IL 62035

Dekker, Charles
928 Balra Drive,
El Cerrito, CA 94530

Di Oro, Nicholas
68359 Springs Road,
Garberville, CA 95542

Finnila, Molly
106 Stoneridge Road,
Chesnee, SC 29323

Helm, Henry R.
10674 NE Manor Lane,
Bainbridge Island, WA 98110

J & L Bluebonnet Plantation
Route 2, Box 564-B,
Hempstead, TX 77445

King, Jessie Kitts
3828 NE Alameda,
Portland, OR 97212

Kramer, Stewart
1235 Woodlawn Avenue,
San Jose, CA 95128

Kraus, Robert E.
1496 Dana Avenue,
Palo Alto, CA 94301

Kritzman, George & Millie
1350 Journey's End Drive,
La Cañada, CA 91011

Lauer, Mae
31700 Highway 20,
Fort Bragg, CA 95437

Martin, Dr. Clyde
4741 Valley End Lane
Suisun City, CA 94585

Mendocino Coast Botanical Garden
18220 N. Highway One,
Fort Bragg, CA 95437

Merritt, Sara
Route 3, Box 414,
Cuthbert, GA 31740

Ploegstra, Steven & Brenda
3332 Sunnyside Blvd.,
Marysville, WA 98270

Rodstrom, Bill
P.O. Box 4684,
Arcata, CA 95521

Saloy, Barbara F.
3873 Greenwood Avenue,
Oakland, CA 94602

Sprowi, William
P. O. Box 102,
Northport, WA 99157

Taniguchi, Steven Jon
3306 Forbes Avenue,
Santa Clara, CA 95051

Von Puttkamer, Gisella
11344 Golf Links Road,
Oakland, CA 94605

Westbay Iris Society, Jane Trayer
25690 LaLanne Court
Los Altos, CA, 94022

FOREIGN

Allery, Phillip E.
199 Walsall Road, Aldridge,
Walsall, W.Midlands, WS9 0BE, England

Komarnicki, Lech
Raszynska 3 m.6
02-026 Warszawa, Poland

Niemi, Miss Jennifer A.
P.O. Box 12, Lawrencetown,
Anna Co, NS BOS 1MO, Canada

Trinder, John
72 Audley Road, Alsager,
Stoke-on-Trent, ST7 2QN, England

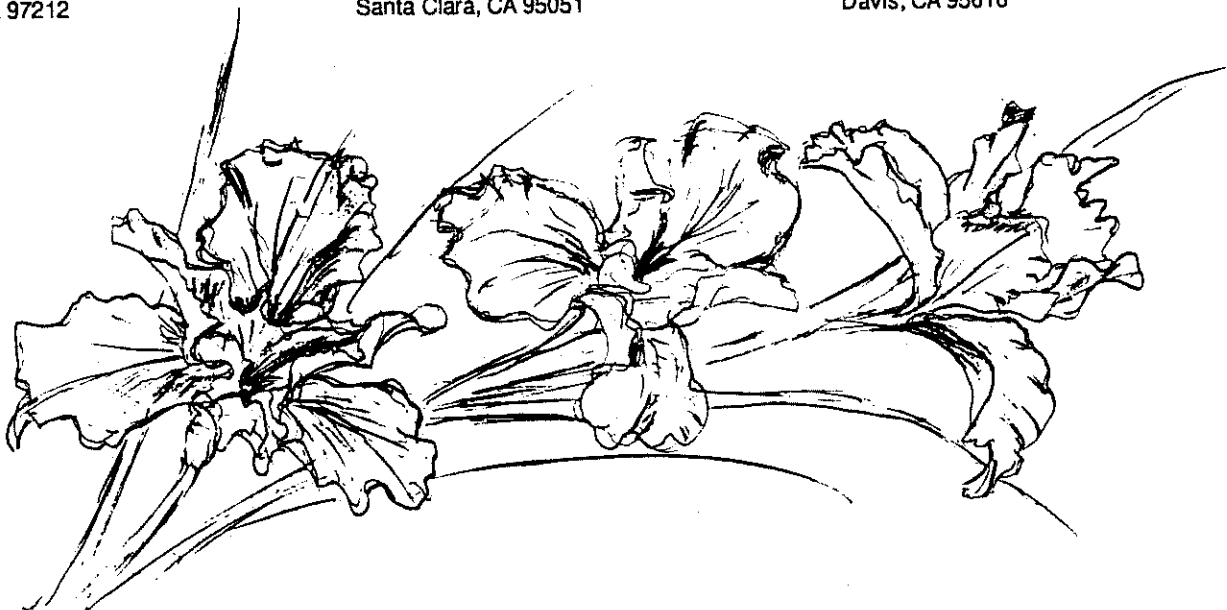
NEW ADDRESS

Bulbes D'Opale,
Boerenweg Ouest,
F-59285, Buyssecheure, France

Hansen, Constance
1781 Stark Lane,
Paradise, CA 95969

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

Lawyer, Artie
27301 Willowbank
Davis, CA 95616



1993-1994 SEED EXCHANGE LIST

Seeds are available on a first-come, first-served basis. All seeds are priced at \$1.00 for the first packet, and \$.50 for each additional packet. Please order by number. Make checks payable to SPCNI, and address orders to Louis & Caroline Fry, 4 Renata Court, Novato, CA 94947.

Unless otherwise specified, all seeds are open-pollinated with only the pod parent known.

From the garden of Lewis and Adele Lawyer:

(All are O.P. and may be influenced by *I. munzii* pollen)

- | | | |
|--------------------------------|---------------------------------------|---|
| 93001 All Shook Up | Lenz sdlg. | Road, Lake Co., CA |
| 93002 Ami Royale | 93043 XP164A: Lawyer sdlg. X | 93067 <i>I. macrosiphon</i> , yellow, |
| 93003 Augie | Lenz sdlg. | various locations along |
| 93004 Banbury Princess | 93044 XP170: Sierra Dell X | Harrington Flat Road, SSE |
| 93005 Blacklight | Lawyer sdlg. | of Boggs Lake, Lake Co., CA; |
| 93006 Califancy | 93045 XP185A: Lawyer sdlg. X | most packets marked with |
| 93007 Carrot Top | Lawyer sdlg. | 8- 12-inch flower stalks |
| 93008 Fault Zone | 93046 XP192: Cross involving | Species seeds collected |
| 93009 Foothill Banner | good blue color | by J. V. Lawrence |
| 93010 Garden Delight | 93047 XP196: Lawyer sdlg. X | (includes plants seen on |
| 93011 Half Time | Lenz sdlg. | 1992 and 1993 Treks) |
| 93012 Harland Hand | 93048 XP197: Lawyer sdlg. X | 93068 <i>I. bracteata</i> , Waldo- |
| 93013 Jean Erickson | Lawyer sdlg. | Sanger Peak Rd., 2800', |
| 93014 Las Flores | 93049 XP202: Sierra Dell X | Josephine Co., OR |
| 93015 Lemonade Springs | XP143 | 93069 <i>I. chrysophylla</i> , Rogue |
| 93016 Mendocino Banner | 93050 XP203: Sierra Dell X | River at Indian Mary Park, |
| 93017 Moonlad | XP143F | Josephine Co., OR |
| 93018 Native Blush | 93051 XP209A Sierra Dell X | 93070 <i>I. chrysophylla</i> , Cow |
| 93019 On The Wild Side | Lawyer sdlg. | Creek, tall, Douglas Co., OR |
| 93020 Pacific Dazzler | 93052 XP210A: Good source of | 93071 <i>I. chrysophylla</i> , |
| 93021 Pacific Rim | blue | Anuktuvuk Saddle, 3200', |
| 93022 Poppy | 93053 XP210B | Douglas/Curry line, OR |
| 93023 Rio Dorado | 93054 XP210C | 93072 <i>I. innominata</i> , Cow |
| 93024 Sierra Dell | 93055 XP210F: Good source of | Creek, Douglas Co., OR |
| 93025 Sierra Stars | blue | 92073 <i>I. innominata</i> , Mt. |
| 93026 Soquel Cove | 93056 XP211D: Spidery crink- | Reuben Rd. near Rogue, "the |
| 93027 Sugar Candy | led blue | lunch spot," Josephine Co., |
| 93028 Tidy White | 93057 XP211E | OR |
| 93029 Tunitas | 93058 XP215: Lawyer sdlg. X | 93074 <i>I. innominata</i> , upper |
| 93030 Westerlies | Lawyer sdlg. (involves Lenz | Dutch Henry Rd., late |
| 93031 Assorted <i>munzii</i> - | sdlg.) | blooming, bright, 2800', |
| derived | 93059 XP215B | Douglas Co., OR |
| 93032 Mixed garden hybrids | 93060 XP224B | 93075 <i>I. innominata</i> , Rd. 3353' |
| Lawyer hybrids, mostly | 93061 XP231A: Sierra Dell X | (China Flat Rd.), about 4 |
| <i>munzii</i> -derived | Lenz-Lawyer selected sdlg. | mi. in, 1600', Douglas Co., |
| 93033 XP1F (Sierra Sapphire | 93062 XP255: Abell 10 X | OR |
| flower on 16" stalk) | Sierra Dell | 93076 <i>I. innominata</i> , China |
| 93034 XP62B (dark blue) | Species seeds collected | Flat Rd., darker veins |
| 93035 XP64BD | by Lewis and Adele | and/or broad form, Coos |
| 93036 XP69B | Lawyer and Gene and | Co., OR |
| 93037 XP120: Sierra Dell X | Joanne Loop | 93077 <i>I. innominata</i> , above |
| Claremont Blue Sky | 93063 <i>I. hartwegii</i> , yellow, | Coquille Falls, paler forms, |
| 93038 XP133A: Sierra Dell X | collected at Cow Creek, | 2000', Coos. Co., OR |
| Lawyer-Lenz sdlg. | Stanislaus Natl. Forest, | 93078 <i>I. tenax</i> , Cow Creek, very |
| 93039 XP133B | Tuolumne Co., CA | dark forms, Douglas Co., OR |
| 93040 XP137A | 93064 <i>I. hartwegii</i> , yellow, | 93079 <i>I. tenax</i> , West of Eden |
| 93041 XP143: Sierra Dell X | collected at Herring Creek | Valley, all paler forms, |
| Lenz sdlg. | Road, Stanislaus N. F. | some whites, 2400', Coos |
| 93042 XP157A: Lawyer sdlg. X | 93065 <i>I. macrosiphon</i> , purple, | Co. |
| | Bottle Rock Road, Lake Co., | 93080 <i>I. tenax</i> , West of Eden |
| | CA | Valley, marked in rain for |
| | 93066 <i>I. macrosiphon</i> , yellow, | better substance, Coos Co. |
| | Central Harrington Flat | 93081 <i>I. tenax</i> , Eden Valley |

Lawrence, cont'd.

93082 *I. tenax* ssp

klamathensis, Barkshanty Rd., Humboldt Co., CA

92083 *I. thompsonii*, Low

Divide Rd., Del Norte Co., CA

93084 *I. thompsonii*, High Divide Rd., Del Norte Co., CA

93085 *I. tenax* X *I. chrysophylla* marked in bloom for dark ovaries, Douglas Co., OR

93086 *I. tenax* X *I. chrysophylla* Mt. Bolivar, 3200', Coos-Curry-Douglas Co. line, OR

93087 *I. tenax* X *I. innominata*, On Rd. 3353 just east of Johnson Creek; mostly *tenax* types, wide color range, 2000', Coos Co., OR

Species from Shirley Lutz

93088 *I. tenax*, purple, grown in Longview, WA from seeds collected at Cape Perpetua, OR; hardy, rust resistant

93089 *I. tenax*, blue-violet to purple

Species collected by

Joyce Barkley (at request of Joe Grant)

93090 *I. hartwegii* ssp.

australis, UCLA Conference Center, Lake Arrowhead, CA

Hybrids grown by Dr.

John Weiler

93091 Rincon, OP

93092 Weiler PCN seedlings,

OP (from sdlg. being considered for introduction)

93093 OP seeds from named

clones of garden hybrids

Hybrids grown by Loretta Figueroa

93094 Augie OP

93095 Big Money OP

93096 Los Californios OP

93097 Mission Santa Cruz OP

93098 Native Warrior OP

93099 Valley Banner type OP

Species collected by

Claude and Joanne Derr

(includes plants seen on the 1991 Trek)

93100 *I. douglasiana* from the garden

93101 *I. tenax* collected on Monument Peak, OR

93102 *I. tenuis*, collected in Clackamas Co., OR

From Joan Trevithick

93103 B35-23 (C. Jenkins sdlg. of Western Queen X Night Messenger) OP

93104 Banbury Beauty O:

93105 Bottom Line OP

93106 Brummitt & Wise mixed

93107 Californian crosses

93108 Deepening Shadows OP

93109 Las Olas OP

93110 Rhet's Memory OP

From Rickie Campbell

93111 *I. tenax*, large violet, collected near Sutherlin, Douglas Co., OR

From Duncan Eader

93112 Amiguita OP

93113 Mixed seed from the Ralph Conrad garden

93114 Asst. seed from named and unnamed cultivars, OP, and excess from crosses

Species collected by Bill and Jeanne Ferrell

93115 *I. innominata*, above Agness, Curry Co., OR

93116 *I. tenax*, Botkin Creek, Benton Co., OR

Species collected by Bill Janssen and Diana Reeck

93117 *I. tenax*, collected on Silver Star Mtn., SW Washington, 3000 ft.

From John D. Marchant

93118 Mixed seed from his 1990-1992 introductions and registrations

Species collected by

Roger and Miryam Brewer

93119 *I. chrysophylla*, Detroit Lake, OR

From Rob Potterton

93120 *I. tenax*, OP in UK

Species collected by

Louis and Caroline Fry

93121 *I. macrosiphon*, Marin Co., CA

From countless sources

93122 Mixed garden hybrids and species, both collected and open-pollinated

—§—

A heartfelt "thank you" to all our donors — it wouldn't work without you. If you don't see it here, ask. It might have arrived too late to list.

Cultural Directions

—Adele Lawyer—

In nature, Pacific Coast iris (PCI) generally grow in a well-drained, gritty soil in lightly wooded areas. They thrive where the summers are long and dry, but tolerate rain and snow cover, and some frost, in other times of the year.

The most frequently recommended method for seed culture is as follows: Plant the seeds in a good, moist potting mix in the fall, rather than in the heat of the summer. The mix should be fast-draining with a pH of 6.5 to 7. Plant in pots or flats and cover and firm with about a quarter-inch of potting mix. Plant as many seeds as you can physically separate from each other when it is time to transplant them, (1/2 to 1-inch apart). Keep the soil moist until they germinate, which takes two months on the average.

Transplant the seedlings to the garden or into pots when they are 3 to 6 inches tall. This will generally be from March to May. If pots are your choice, use 6 to 8-inch pots for each seedling. When planted directly into the garden soil, plant them 6 inches apart in rows which are a foot apart. In that way you will have room to dig those you select when they bloom.

They grow best in filtered shade or morning sun. They transplant well. Most hybrid seedlings will bloom the following spring. Some species take two years to bloom.

—§—

Please list a few acceptable substitutes, or give instructions, as several listings are in extremely short supply (one scant packet in some cases). Also, please make payments in U.S. funds.