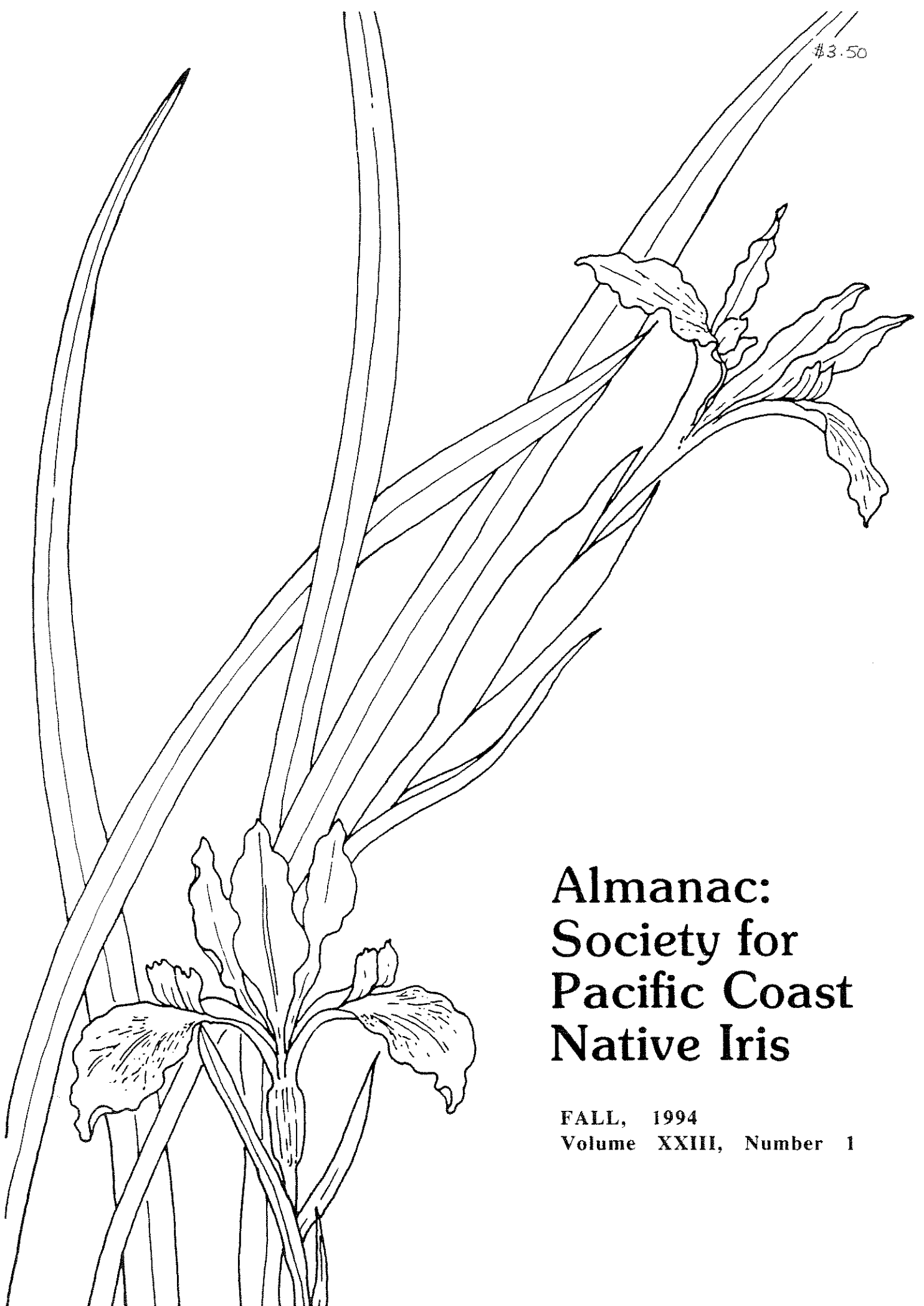


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**Almanac:
Society for
Pacific Coast
Native Iris**

FALL, 1994
Volume XXIII, Number 1

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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

DEADLINES: March 1 and September 1. Back issues are available for \$3.50 each, postpaid. Complete chronological index \$2.00, postpaid. Index by subject matter, or by author, \$4.00 each, postpaid. Please address the Editor.

PRESIDENT'S MESSAGE

Perhaps I should report that I find the duties of the president less onerous than I once supposed they would be. When I started (as 2nd vice-president) down the slippery slope that led to my present term of office, I was concerned that somewhere along the line I would be exposed as the unknowledgeable fraud that I was: unable to identify every Pacific Coast iris species correctly at a glance, in or out of flower, not even keeping up with all the new hybrids registered each year, not meeting expectations. Instead, I have developed several new friends, learned a little more each year, and have even managed to help with *SPCNI* affairs to a limited extent.

Any of you who have not been actively participating in the affairs of your society should consider doing so. Look at the list of positions on the inside front cover of the *Almanac*. It is likely that you might be able to fill one or another of them—and that you would find the present holder of the position quite willing to have you take it on. Ours is not a large society and, from what I know of the incumbents, it is not run by people who have a death-grip on their offices. It is true that most of the officers are there because of their love of and interest in the native iris, but perhaps a portion of their dedication arises from necessity, as no willing replacements have been sighted. If you are interested in helping *SPCNI*, drop me a note with a hint.

One hard-working person who deserves our commendation is Colin Rigby, who has not only formed our Outings committee and planned the 1995 Expedition, but has also recently assumed the responsibility of seed distribution. The Outings committee members, who have volunteered time to plan and explore ideas

and locations for our future trips, include Bill Ferrell, and Lew and Adele Lawyer.

Please contact one of them to pass on any ideas or tips you may have for future explorations of PCN iris habitat.

One of the objectives of the *SPCNI* is to support scientific research on the irises that we all enjoy, both in our gardens or in their wild habitat. Elsewhere in this *Almanac* is a report about the continued financial support that we have recently given to Carol Wilson for her studies on evolution in the series *Californicae* irises. My friend Bob Ornduff, emeritus professor of botany at UC Berkeley, has pointed out areas that he once studied as rare vernal pool plant habitats that are now housing tracts, and their wildflowers are long gone. He points to the difficulty in finding public support for research on these plants: they are not economically important, and the wildlife organizations present us with cuter, livelier objects for our affection. Those of us who have participated in the expeditions of the past five years have gained some appreciation of the limited natural distribution of many of our favorite species. Although our native irises are not listed as endangered species, they are neither universally appreciated (not even by cattle, sheep, or deer), nor are they so uniformly distributed across western lands as to be beyond at least localized extinction. The range of our wild irises is not expanding, and it is in the public interest to learn enough about their biology to provide information that will help in planning for their preservation.



FROM THE EDITOR

PCI seeds, like the seeds of many wild plants, have a built-in mechanism which discourages 100 percent germination the first year. This is helpful when the weather suddenly turns lethal after the seed has sprouted. Some of the seeds just wait until next year when perhaps conditions will be better. This delay can

help in the perpetuation of a species, but it may also be one of the factors which prodded so many growers into devising the numerous methods for improving PCI germination which have been published in the *Almanac* over the years.

This is why I am so excited about the seed-germination tests being conducted

by Eugene Loop, SPCNI member from Walnut Creek, California. To me, his report on page 5 delineating preliminary findings developed from this work is one of the most significant articles ever to appear in the *Almanac*. And, of even more consequence to us, he is continuing his carefully controlled tests in anticipation of getting the correct answers to how and, more importantly, why we can achieve maximum germination and plant growth from our PCI seed.

Adele and I visited his home "laboratory" and were duly impressed by the well-insulated temperature chambers he had constructed, and the electronic controlling devices he had assembled to insure their precise control. With this

equipment he can program either continuous or fluctuating temperatures to very exacting tolerances. Hopefully he may eventually accumulate enough data to explain all the "wife's tales" and gardener's superstitions connected with the art of germinating PCI seed.

We are grateful that someone would take the time necessary to track down all these variables. We are also fortunate that Gene has the patience and the powers of observation so essential to assembling all the findings into a meaningful whole.



The 1995 SPCNI EXPEDITION

Colin Rigby, our new Field Trip Chairman, has sent us an outline of his plans for next year's Expedition.

The weekend of June 3, 4, 1995 has been set for this event, which will take place in *I. tenax* country, in northwestern Oregon and Washington. This date is later than he would have wished, but was chosen to avoid a conflict with the date of the American Iris Society Convention taking place in Pennsylvania during the previous week.

Our headquarters will be the Mark 205 Motel in Vancouver, Washington. A free shuttle to and from the Portland Airport is available here. Please make reservations directly with the motel, mentioning the Society for Pacific Coast Native Iris. The telephone number is (800) 426-5110 or (206) 256-7044. Room rate is \$55 for up to 4 persons, (flat rate).

The tour route is not yet firmly fixed, but the late date dictates that we visit higher elevations for best bloom. The plan is to tour Oregon areas on Saturday, the final route to be selected by

Claude Derr, who is familiar with the area and close enough to check on best bloom sites. Stops will include Mt. Hood and environs, where wild flowers should be blooming in profusion. It should also be an ideal time to again see the many colors of *tenax* at Monument Peak. If we are lucky, *Iris tenuis* will be in bloom, as it was in 1994 at the beginning of June!

In Washington, Mt. St. Helens, site of the well-publicized volcanic blowout, is in our plans. Trips to other areas are still fluid and dependent upon the best sites, which our scouts will pinpoint as the date of the tour approaches.



Discussing the Expedition: David & Evelyne Lennette, Adele & Lewis Lawyer, Colin Rigby.

We will be traveling by bus both Saturday and Sunday. It was decided at a meeting of SPCNI officers that we would limit our transportation to one bus, or a maximum of 47 persons. For this reason it would be wise to reserve space as soon as possible. Based on the expectation of a full quota of participants, the total cost per person for 2 days on the bus, 2 lunches, and a dinner meeting Saturday night will be approximately \$68, including incidental costs. To reserve space,

please send check, made payable to SPCNI for \$50 per person to Adele Lawyer, SPCNI Treasurer, at 4333 Oak Hill Road, Oakland, CA 94605.

Further details on this trip will be published in the Spring 1995 edition of the *Almanac*.

We look forward to seeing the many friends whom we have met through these Expeditions, and urge those of you who have not yet experienced the joy of seeing PCI in the wild: Try it! You'll love it!

ON THE GERMINATION OF PCI SEEDS

Eugene Loop, Walnut Creek, California

This article is a status report on a project still in progress, to accurately define the temperature requirements for germinating PCI seeds. The work has involved primarily the germination of seeds in petri dishes at carefully measured and/or controlled temperatures. A home refrigerator is used to obtain cold temperatures, and small iceboxes have been built to maintain warmer temperatures. These iceboxes have a computer-controlled fan which can blow cold air from ice, or warm air from a heater, into a seed chamber so that temperatures in the range of 40° to 90° * can be maintained. In most of the experiments, seeds are placed in the petri dish between layers of moist filter paper, without any other growing medium. In this way, the top layer of the paper can be

removed to observe the progress of the germination. The rate of germination and total percent germinated for each experiment is recorded.

This report uses the seed physiologist's definition of *germination*, which says that germination is complete at the time growth starts; and for these experiments, each seed is recorded as germinated as soon as any sprout can be seen coming from the seed coat. Another definition in widespread usage refers to *germination* as the first appearance of the seedling above the soil. Here, this would be referred to as *emergence*.

A particular part of the investigation to date has been to examine the idea of precooling the seeds in the refrigerator or freezer for some period of time before planting them. The following related conclusions can be made based on the results so far:

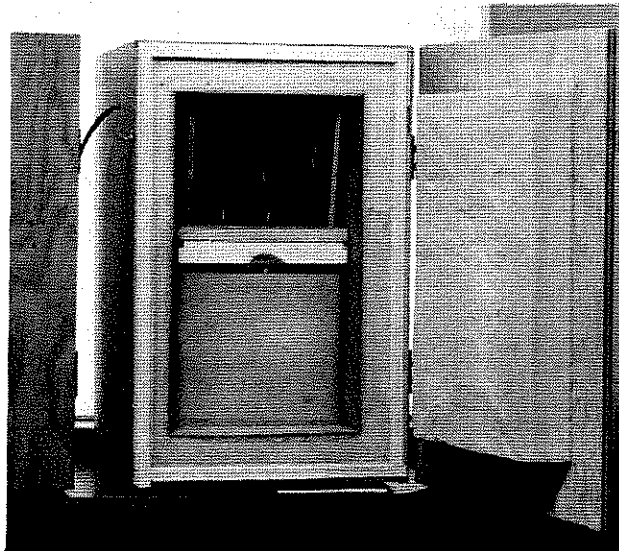
(1) The PCI seeds need cool temperatures to germinate. Room temperature is borderline maximum for some batches of seed, too high for others. The daytime temperature of 80° in my orchid greenhouse is definitely too high.

(2) Precooling the seeds in the refrigerator or freezer will not make them germinate any better at warmer temperatures. There is no dormancy which can be broken by cold temperatures.

(3) They will germinate well at temperatures of 40°, albeit slowly. Probably they will also germinate at temperatures closer to freezing, but tests below 40° are not yet completed.

(4) After germination is complete they

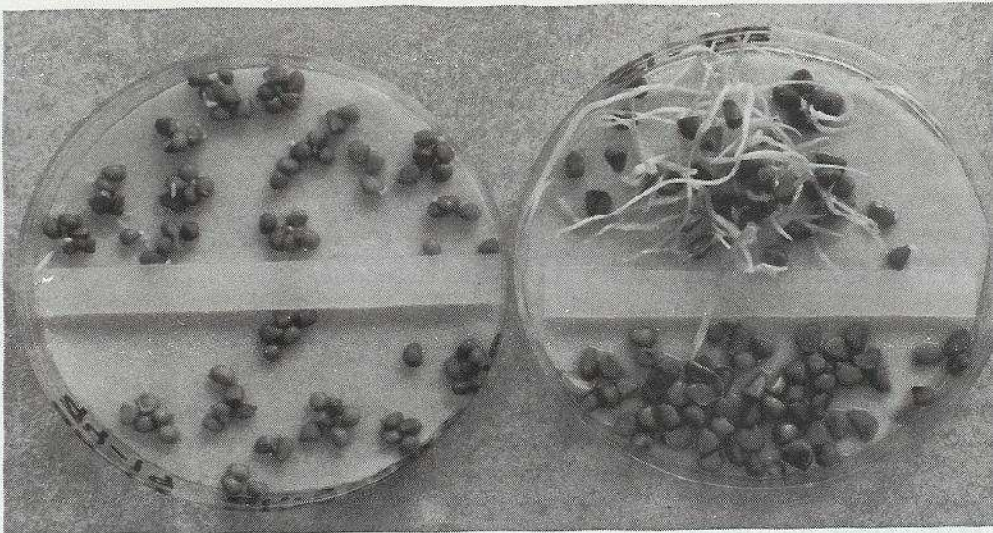
*All temperatures are in degrees Fahrenheit



One of the "ice boxes" with door open to show ice chamber at bottom, petri dish chamber at the top, and the heavy insulation

grow very slowly at cool temperatures, but grow readily at warmer temperatures. At 40°, a 1/16-inch sprout will grow to only 1/4 inch in several weeks. At 72°, a similar sprout will put out roots and grow a leaf 5/8-inch long in 10 days.

seeds need to be brought to a warmer place, say 40°, implying that his bags were kept very cool. This later method seems preferable because the time for the seedlings to be ready for transplanting can be controlled by leaving the seeds in



Petri dishes with germinating seed. Sprouted seed has been moved to top. Left dish 50° Right dish 60°

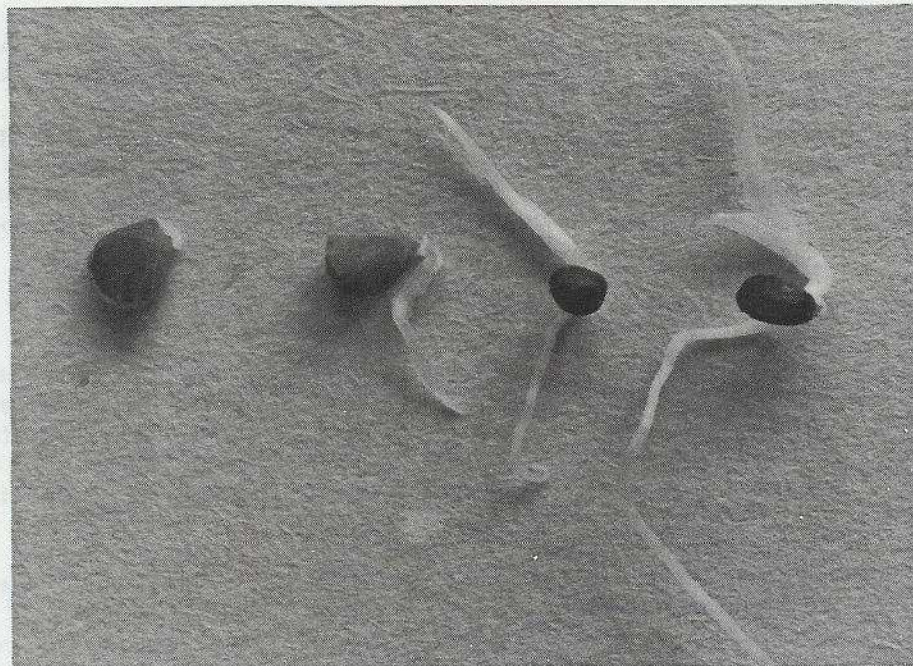
the bag until the start of growth is desired. [If you review these *Almanac* articles, remember that the meaning of *germination* may be different than the definition used in this article.]

These methods work because the seeds germinate well when cold but do not grow much until they are removed to a warm location where they grow rapidly.

These conclusions explain why seed germination methods described by Lee Lenz, Roy Davidson, and others work so well. Lee Lenz' method, described by Adele Lawyer in the Fall 1986 *Almanac*, says to plant the seeds in a container between layers of milled sphagnum moss, then place the container in the refrigerator for 3 to 4 months. When removed to the greenhouse, they will pop up like a flat of grass. Another method, also summarized in the same article, is to seal the seeds along with a handful of planting mix in a plastic zip-lock bag. Then place the bag in a cool location. With variations, this method was used by Caroline Spiller at Strybing, and by Roy Davidson and Dorothy Hujsak.

When this project was started I was under the impression that a few days or weeks in the refrigerator or freezer would condition PCI

Adele's summary did not specify the temperature of the "cool location"; however, Roy, in describing the method himself in the Spring 1991 *Almanac* said "sprouting



Germinating seed. 1. first signs of germination. 2. Root formed, leaf just starting. 3 & 4. Leaves developing, root elongation.

seeds to germinate by overcoming some kind of dormancy. Repeated tests have shown this to be untrue. In the first experiment in 1989, seeds were planted in

6

several small flats and put in the refrigerator at 34° for times varying from 1 to 5 weeks. They were then removed to an orchid greenhouse which has a minimum temperature of 60° at night, and over 80° on most sunny days. Not one seed emerged. The experiment was repeated the following year, using shorter times in the refrigerator of 5 to 30 days; then moving the containers to a warm windowsill in the house. About 12 percent of the seeds emerged. Both of the experiments failed because the seed was not in the refrigerator long enough to germinate, and additionally, they were then moved to a location that was too warm. The greenhouse was far too warm, and and nothing grew. The windowsill was marginal for warmth and a few grew.

To further prove the point, one more similar experiment was conducted this year. *Iris douglasiana* seeds in petri dishes were put in the refrigerator at 41° for times of 2, 5, 10, and 20 days. They were then moved to one of the iceboxes with a controlled temperature of 60°. All germinated very well; however they all germinated in the same length of time as seeds that were put directly into a 60° box without precooling. The time in the refrigerator was wasted time.

Germination time for the *douglasiana* seeds at 60° varies for every seed. The first seeds germinate in 15 to 20 days after being subjected to that temperature, and the last ones germinate in from 25 to 40 days. At 41°, however, the first seed germinated at 54 days and the last at 110 days. This is why the germination methods described by Lee Lenz et al require refrigerator time of at least 3 months.

This project has not yet developed much data on the use of the freezer. The kitchen freezer runs at about 0°F. Seeds

left there for 2 months did not germinate in the freezer, and germinated very poorly when removed to 60°. On the other hand, seeds frozen in a block of ice for 2 weeks and planted outside emerged normally. More data is needed to resolve the effect of freezing temperatures.

Only one other variable has been tested briefly. What is the effect of a varying temperature versus a steady temperature? One of the temperature-controlled iceboxes was set up to provide a varying temperature which changed from 70° at noon to 50° at midnight, then back to 70° the next noon, etc. This results in a saw-tooth pattern with an average of 60 degrees. The seeds germinated the same in this environment as when the temperature was held steady at 60°. They also germinated the same when a petri dish was buried in a box outside where the temperature measurements averaged 61° with a minimum-maximum of 44/65. On the basis of just these tests it would seem that a varying temperature is neither good nor bad.

The tests will continue. The current objective is to get more data on the temperature range for germination of other species. All of the data to date has been conducted using one batch of *douglasiana*. It was the only species of which a large quantity of seed harvested from a single area was available. This year, more seeds have been gathered. Seeds of *tenax*, *innominata*, and *chrysophylla* from Oregon, plus *macrosiphon* and a limited amount of *munzii* from California are on hand. As time and space in the icebox permits, tests will be run to determine the temperature limits for all of these seeds. Work on some hybrid seed donated by Vernon Wood and Lewis Lawyer is also planned. Tests already show that these hybrids will germinate well at 60°.

TWO GHIO INTRODUCTIONS TIE FOR MITCHELL AWARD

The vote for the 1994 Mitchell Medal ended in a tie between two Joseph Ghio introductions, **DRIVE YOU WILD** and **SIMPLY WILD**, each with 22 votes. Both have been pictured in color in the *Almanac*, *Simply Wild* in in Spring 1990 issue, and *Drive You Wild* in the issue of Fall 1991. Runners up were **CALIFORNIA MYSTIQUE** and **BIG MONEY**, both Ghio introductions.

The top Award of Merit was another Ghio variety, **IDYLWILD**, with 33 votes. Vernon Wood's **SMUGGLER'S COVE** was second, followed by two other Ghio varieties: **IN THE MONEY** and **NIGHT EDITOR**.

Honorable Mention awards were given to Bennett Jones' **PACIFIC RIM**, with 40 votes, Joe Ghio's **FAULT ZONE**, and John Weiler's **CHIEF SEQUOIA** and **WESTERN BLUEBIRD**.

A NEW COLLECTION OF *IRIS PURDYI* FROM NICK DI ORIO

Adele Lawyer

Among the species seed represented in our Seed List in this issue is *Iris purdyi*, collected by Nicholas Di Orio on the property he and Douglas Zimmerman, his partner, own together in northern Mendocino County, California. Readers may have noted in the *Letters* section of the Fall 1993 *Almanac*, Nicholas Di Orio's comment that the large stand of native iris on his property seemed to be identical to the photograph of *purdyi* by George Waters, which graced the cover of the July 1992 edition of the *American Iris Society Bulletin*. If confirmed, he offered to send seed to our seed bank.

In mid-May, Nick informed us that the iris were in bloom, and Lewis and I, along with Gene and Joanne Loop, made the trip to see them. Their property is located off Highway 101 on Bell Springs Road. This gravel road is part of the old stagecoach route which runs from 12 miles north of Laytonville, through a sparsely populated area, to Garberville.

When we turned off Bell Springs Road and drove down the steep, dusty, private

road to the home site, we were astonished to see the scene open out to a lush and lovely landscape featuring a small lake, a handsome home, and flowers in bloom!

It didn't take us long to feel at home with the two young men we had never met 'til then. We shared an interest in iris and waterlilies in particular, and in admiration for their love of nature and their industrious, productive lifestyle.

They have created the lake by taking advantage of a perpetual spring draining from a huge rock intrusion, Camel Rock, dominating the highest elevation above their land. The lake has been planted to hundreds of waterlilies of many varieties, (40 or 50), and has also been stocked with trout. The waterlilies are further propagated for sale in tanks apart from the lake. Nick and Doug also make beautiful picture frames in their shop, the Bell Springs Woodworks, utilizing various kinds of wood, which they cut, finish, and assemble, - some inlaid, some engraved, and some plain. All are elegant and are sold in shops handling fine art objects.



Doug Zimmerman and Nicholas Di Orio
with their dog, Claude, in a field of *Iris purdyi*



The lake. What more can be said?



A Purdyi Paradise

We had lunch in the lovely home which they built themselves. The lights are powered by electricity generated by water power from their spring.

Then we walked down the hill through their undeveloped woodland to see the wild iris. Their dog, Claude, a handsome, mostly Rhodesian Ridgeback, accompanied us, with bounding detours along the way. When not on joyous walks, his assigned job is to warn his masters of intruders and to discourage deer from feasting on their vegetable crop. [They also have a hard-working cat, who is responsible for rodent control.]



An old log backs up a clump of *I. purdyi*

The iris were indeed *Iris purdyi*. There were masses of them in the open, oak woods. Their clean, bright green leaves carpeted the ground with intervals of tan contributed by the oak leaves. They covered a major portion of the 160-acre property, and were accented here and there with calochortus, fritillaria, ranunculus, and showy crimson clover.

There was very little variation in the shape and color of the purdyi flowers.

When freshly opened, they were a clean pale cream with delicate red veining. As they aged, the veining bled out in dots and discrete lines between the veins so that the flowers had a red blush. There was no



As far as the eye can see

chance of contamination from other wild species, since they are nestled in a draw between many acres of similarly undeveloped land.

There were moist areas and little streams scattered here and there in the acreage, even some with small waterfalls. There, lilies, succulents, and soft green foliage dominated, whereas the iris were principally in the relatively higher and drier woodlands.

An enormous myrtle tree provided shade and a spot to rest on the long, uphill walk back to their home. We were impressed by the property, by the prolific display of purdyi, and by the industry of our hosts. We hope that those of you who will be growing *Iris purdyi* from Di Orio will enjoy the beauty of the flowers more because you know something of their source. Maybe here, "roots" would be the appropriate term.

Ed note: The seed lot number for the Di Orio purdyi is 94114.
This is a rare chance to get pure, non contaminated seed.

SPCNI SUPPORTS RESEARCH

We are pleased to report that SPCNI has contributed \$800 to the University of California toward Carol Wilson's continuing research on the evolution of the *Californicae* species. The American Iris Society has contributed a much more generous grant toward her work. Both grants support the molecular phase of her ongoing studies.

Sequencing of the DNA is progressing well, and more rapidly due to the availability of an automated sequencer.

In addition to all the *Californicae* taxa, two Siberian species, *I. forrestii* and *Iris delavayi* are included in the molecular comparisons. The 40-chromosome Siberian iris and the Pacific Coast native iris cross readily, and attractive Cal-Sibes

have resulted. This evidence, in addition to the historical geology of Siberia and the Pacific Northwest, suggest that an evolutionary relationship may exist and should be investigated.

It is of interest that the British Iris Society has recognized Wilson's characterization of *Iris thompsonii* as a distinct species with the approval of Victor A. Cohen, author of *A Guide to the Pacific Coast Irises*.

Another researcher, Ned Young, has conducted nuclear research on the *Californicae* at Cornell University. He was sponsored by the California Native Plant Society. It will be interesting to compare his results with those of Carol's in those features of the studies which overlap.

PACIFICAS IN NEBRASKA

Garland Bare, Lincoln, Nebraska

It all started with LaRue Boswell! During the AIS Convention in Omaha in 1990, Carl and LaRue were seated across the aisle from us and pleasant conversation led to a delightful new friendship. LaRue handed us a packet of Pacific Coast Iris seed and suggested we try some in Nebraska. Naively, that fall I planted some of the seeds outdoors and planted the rest in a clay pot which was placed in a plastic-covered window well.

That winter an experienced Nebraska irisarian informed me that Pacificas will not even germinate outdoors, and even if they did, there is no way they will survive to bloom. Nebraska has three seasons that are lethal to Pacific Coast Natives: - winters that reach -20°F to -30° ; springs which can gyrate wildly from sub-freezing to $+90^{\circ}$ and be very wet or very dry; and summers which almost invariable have several $100^{\circ}+$ days.

True to prediction, none of the seeds planted outdoors germinated, except for one lone straggler which popped up this spring. Those in the clay pot germinated profusely. An article by Dot Hujsak of Tulsa in the *AIS Bulletin* telling of her problems and successes in growing PCN's in Oklahoma was a useful encouragement, even though Nebraska winters are much harsher.

Our soil in Lincoln, Nebraska is hard packed alkaline clay; so sulphur, oak leaves, and peat moss were worked into the soil in an area with morning sun and afternoon shade. Transplanting the seedlings from the clay pot to 16 oz styrofoam cups resulted in a large number of casualties, but four apparently healthy plants were placed in the garden in late spring. They thrived through the summer and fall.

They were heavily mulched through the winter of 1991-92, which was relatively mild. Imagine our pleasure when the mulch was removed and all four plants had survived their first winter. Meantime I had started open-pollinated seeds from MONTARA, PACIFIC RIM, and NIGHT EDITOR. These were sent to me by Terry Aitken. John Weiler brought some plants from his garden, and also seed from *Iris hartwegii* collected at 6000 feet in an area in California where winter temperatures drop to 0° . MONTARA and PACIFIC RIM seedlings germinated well. Seeds from NIGHT EDITOR germinated less well, but the seedlings showed more stamina and better resistance to heat and cold than any of the others. Some of the plants Dr. Weiler brought survived the winter in sunken window wells, but succumbed to a cold snap in the spring.

Each year far more seedlings perished than survived, but the number of plants in the garden gradually increased. The winter of 1992-93 was the coldest in more than a decade with temperatures down to 24° below zero Fahrenheit, but heavy snow cover seemed to protect the plants. The summer of 1993 was one of the rainiest on record, - the year of the Great Midwest Floods. Amazingly, no plants died.

There were 8 garden clumps last fall when the heavy freeze came: 3 Boswell seedlings, 2 NIGHT EDITOR OP, 1 PACIFIC RIM OP, 1 MONTARA OP, and 1 *I. hartwegii*. The 1993-'94 winter was cold and dry with several sub-zero days. Lack of snow cover seemed to be hard on them, but five plants survived the winter.

Just before leaving for the Portland AIS Convention in May I was excited beyond words to discover bloom stalks on two of the garden clumps, - a Boswell seedling which had survived three Nebraska winters and a two-year old NIGHT EDITOR seedling. In Portland it was great to meet new and old friends who have encouraged me in growing Pacificas, - the Boswells, Weilers, Aitkens, Lawyers, and Gigi Hall. I acquired a tremendous amount of new information and enjoyed the thrill of seeing Pacific Coast Natives blooming in the gardens and along the roadsides in their native habitat. In addition I compared notes with others who are growing these irises outside their native haunts in places like England, New Zealand, Ohio, Maine, and New Mexico.

Back in Nebraska on May 27 the NIGHT EDITOR seedling became, to my knowledge, the first Pacifica to ever flower in a Nebraska garden. Its rounded violet blooms with gold flash were followed two days later by the Boswell seedling which lifted graceful white blooms well above the

glossy dark green foliage. These blossoms had yellow blaze and violet veins in both standards and falls. I self-pollinated both plants as well as cross-pollinating them. Now I am hovering over seven little seed pods. Pacificas can really grow and bloom in Nebraska!



The first PCI to bloom in Nebraska?

Growing Pacific Coast Natives in Nebraska is not for the faint-hearted. Growing conditions in USDA climate Zone 5 is far from those in which these plants thrive naturally. Why bother with a plant which requires such intensive care when hardier iris classes thrive beautifully in Nebraska? Perhaps there is no rational answer to the one who has become enamored with the rare grace of the Pacificas. Yet some of us hope and dream that by crossing and developing hardiness in the survivors, the day will come when these beauties can be enjoyed in many parts of the country

ON MOVING PACIFICAS FROM COASTAL CALIFORNIA TO ARIZONA

Charles Jenkins, Scottsdale, Arizona

Charles Jenkins has been a plant hybridizer both before and after his retirement. It was vegetables before retirement and iris after. His principal efforts have been devoted to spuria iris, but he has introduced some outstanding Pacificas. His varieties were selected in the cool Salinas area and all of these that we have grown

in our somewhat warmer, but temperate location have been fine performers and beautiful, as well. Editor

I left Salinas, California in September of 1992. The last thing I did with my Pacificas was to turn them over to the Monterey Bay Nursery thinking there was no

way I could grow them on the virgin desert at my new home in Scottsdale, Arizona. It was really a little too early to dig them before I left, but they were given special attention and placed into pots.

Before I returned to Salinas in late January 1993, I had prepared for them in Arizona by sifting rocks from a narrow strip of soil next to a west wall bordered by a sidewalk between houses. This location gets only about two hours of direct sunlight each day. On the chance that I might be able to grow them, I brought back 32 potted plants made up of the 20 cultivars listed in the accompanying table, 10 unregistered seedlings, and a representative each of the species *I. doug-*

lasiana and *I. innominata*.

I had applied a sprinkling of aluminum sulphate to acidify the soil, and incorporated organic matter, but made no check of the actual pH. The plants were set in the ground on February 6, and watered only as needed because of the unusually wet spring.

The following table shows the first bloom date in each of the years 1993 and 1994. If the date is followed by a dash (-), it means that the plant died. A plus (+) sign indicates that the plant is still alive, and a question mark (?) shows that it is doubtful during mid-July 1994 whether the plant will survive. A zero (0) in the date column indicates that the cultivar did not bloom.

CULTIVAR	1993		1994	
	DATE	STATUS	DATE	STATUS
CALIFANCY (Hager'88)	3/24	-		
CANYON ORCHID (Denney'82)	3/29	+	4/8	?
CANYON SNOW (Emery'75)	4/11	+	4/8	?
CARMEL GEM (Jenkins'92)	3/17	+	3/15	?
EARTHQUAKE (Ghio'91)	3/28	-		
FAULT ZONE (Ghio'91)	3/26	-		
JOEY (Gatty'78)	3/26	-		
LITTLE TOBY (Jenkins'92)	3/23	+	4/8	+
MONTEREY SNOW (Jenkins'92)	3/28	+	4/7	+
OVAL OFFICE (Ghio'83)	0	-		
PACIFIC ORPHAN (Jenkins'92)	3/24	+	4/11	+
PESCADERO (GHIO'80)	3/18	+	3/10	+
QUEEN CALIFIA (Ghio'86)	3/21	-		
RHETT'S MEMORY (Jenkins'88)	3/19	+	3/19	+
SIERRA DELL (Lawyer'88)	3/31	-		
SILVER CIRCLE (JENKINS'92)	4/4	+	0	+
TIGER CUB (Jenkins'90)	4/3	-		
TRIPLE HEART (Jenkins'93)	0	+	0	+
UPPER ESCHELON (Ghio'89)	0	+	0	+
YULOVIT (Jenkins'92)	4/11	+	4/11	+

It will be noted that all but three of the twenty cultivars bloomed in 1993; however, the mortality was rather severe. It is remarkable that TRIPLE HEART and UPPER ESCHELON did not bloom in either year, but both are still alive. My introduction, VULOVIT, seems to be adapting better than any others.

Of the ten seedlings brought to Scottsdale, nine bloomed in 1993, but five of these died. Three of the five bloomed in 1994, and all five are still alive. Representatives of the species mentioned previously both bloomed in 1993, but both died.

Seeds from ten different crosses were

planted during February 1993 and germinated very poorly. I am now convinced that the warm conditions inhibited germination. Out of more than twenty plants lined out, fifteen are still alive, but growing very slowly. If they had been planted in Salinas, some may have bloomed this year, and certainly the plants would have been much stronger!

I am still going to nurture a few Pacificas, but in this intense heat it is an uphill battle. We can have weeks when the temperature is above 110 degrees F. Last year, there were more than seventy consecutive days when the temperature was above 100 degrees

TYPICAL *I. TENAX*

Colin Rigby, Rochester, Washington

The great diversity of plant variation within a certain species never ceases to amaze me. The different colors and shapes of both the flowers and leaves, makes it practically impossible, for me at least, to place a plant into one species category. I know that there are certain genetic factors that control their "look like" qualities; but, like people types, it is sometimes difficult to tell just where they belong.

Some years ago while visiting the North Umpqua River in central Oregon, we came upon some beautiful, dark shades of *I. tenax* on the tables at a local restaurant. A lady who worked there took us to see the irises in the wild, a whole hillside above and around her house just outside of Glide. Later that fall, a generous amount of seed arrived in the mail. Some was sent to the seed exchanges and a half cup or so was planted in the far back corner of the yard where it came up like grass. There were a few lighter shades, but with a little roguing out, I eventually had a nice patch of plants with flowers in the color range of deep burgundy and plum-purple with sharp contrasting white signal patches. These flowers were 'typical' of *I. tenax*. There was one prized plant with deep plum-purple flowers, a sharp, white signal and also a thin, white edge to both the standards and the falls. I fear, however, it has been lost in the move.

Glide and the Umpqua River, which we were visiting, is in central Oregon on the eastern side of Interstate 5 and I understand some of the darkest colors in *I. tenax* come from that area. The colors of *I. tenax* on the western side of I-5 seem to be lighter in color with blue-violet and the bluish colors typical. What a visual treat to encounter a large clump almost smothered in bloom.

I've planted seed of 'white' tenax two or three times but they have always turned out to be very pale shades of lavender with some darker veining. One plant, a rather dirty creamy-white color with slightly darker veins and more rounded fall petals, I touted as a white tenax until I realized it must be some sort of a hybrid and added it to the compost pile. Another plant received from a fellow iris-

arian, has yet to bloom. The plant is much weaker than its counterpart and it has been difficult to keep it alive. I've never seen the yellow-flowered form that I know of. This form was once referred to as *I. gormanii* and was located in only two locations, one of which was along Scroggins Creek in Washington County, Oregon. Occasionally, you will find a plant with cream or dirty white flowers, but I don't know that I would call them 'yellow'.

The colors of *I. tenax* in central Washington seem to be different again, all the way from pale lavenders, pinks, and whites, with the darker colors in the red-violet shades. One large area we visited this spring had flowers in pale, delicate colors, some with 'red' veining, lovely clear pinks, and two groupings of pure white with bright yellow signal patches. I thought they were the find of the century, but apparently, pure white is not all that uncommon. There is at least one named clone in existence. The white flowers we saw had no veining at all; and except for the 'typical' form of *I. tenax* one would think they belonged to another iris species. They were seen on private property and we had the opportunity to gather seed.

Mother Nature does other things besides giving us a complete and complex color range of flowers by mixing up the species, one with another, thus adding further complications to an already complex field. *I. tenax* with *I. chrysophylla* gives us the 'Valley Banner' pattern of white flowers with purple lines on the falls and purple styles. This pattern occurs quite frequently in nature, and hybridizers have now stabilized this pattern and given us modern hybrids with very wide petal parts. Another interesting flower I saw this spring was one simply named "Douglasiana Seedling" at a show. The flower was 'typical' purple douglasiana with elongated style ends 'typical' of *I. chrysophylla*. I've never seen douglasiana with these exaggerated style arms, nor have I ever seen chrysophylla in any color other than creamy white. Could this flower have been a cross between the two? I would guess that it was. At any rate, it was a flower with great merit and certainly something out of the ordinary.

LETTERS

CHRYSOPHYLLA, TETRAPLOIDS, BLOOM IN ARKANSAS, HOT!

George Gessert, Eugene, Oregon

Lewis, I would like to make a small addition to your interesting and useful article on species. *Iris chrysophylla* does, indeed, seem to have little garden value when grown as a species. However, Ruth Hardy's VALLEY BANNER and all of its descendents are part-*chrysophylla*. My experiences with *chrysophylla* hybrids convince me that this species should not be overlooked by hybridizers. For nine years I have been collecting and hybridizing naturally occurring hybrid swarms. In a few generations of breeding these new Valley Banner-type plants with species and with garden hybrids, many interesting variations on the Valley Banner pattern have arisen, including bright yellow-ground Valley Banner types, irises with both falls and standards densely veined, Valley Banner types with elaborate signals, Valley Banner types with rose-colored veins and style arms, Valley Banner types with veins broken into dots and dashes, and numerous other variants. Many of these are strikingly beautiful; but unfortunately, like *chrysophylla*, the majority are only modestly vigorous. With the addition of vigor, which I am currently working on, some of them would probably make excellent garden plants.

Besides Valley Banner types, many other naturally occurring tenax-*chrysophylla* hybrids may be valuable for breeding. Some plants have handsome pink or red bracts. (I have also seen red bracts in a few pure *chrysophyllas*.) I bred some pink-bracted plants, and many of their progeny displayed the trait. In addition, tenax-*chrysophylla* hybrids can possibly be used to obtain both unusually early and unusually late-blooming plants. A peculiarity of naturally occurring tenax-*chrysophylla* hybrid swarms is that many of the plants in them bloom significantly earlier or later than either the pure *chrysophyllas* or the pure tenaxes that are blooming in the same vicinity. The most dramatic instance of this is thought to be an ancient stabilized hybrid swarm, now extending over many square miles of Oregon, and which is the first Pacific Coast native iris to bloom in this part of the state.

John W. White, Auburn, Maine

Editors note: We asked John to report on the progress of the 11 tetraploids he produced by treating PCI seedlings with colchicine. This work was reported in the Fall 1991 issue of the Almanac and viewed with interest and anticipation by many of our readers. Here is his reply.

My tetraploid PCIs were raised in pots and I did not want to leave them out in the garden the first winter; so I kept them in my unheated garage on the concrete floor. When we had a warm spell and the pots thawed out, I gave the plants just a little water so they would not dry out. I also had 9 plants from Ghio kept in the garage. The result was that I lost all of them from rot!

I spoke to Bob Ward a year ago at the National AIS Convention, and he said that if I had put them on a table or shelf in front of a window, that would not have happened. The floor was too cold, damp, and had poor air circulation.

So I will try treating some more seedlings with colchicine. We all learn from our mistakes, and I have quite a few to learn from.

I have 6 (non-colchicine treated) PCI seedlings which survived last winter in the garden. That was 6 out of 30. I have one tenax plant that has survived 4 Maine winters; however, it has never bloomed. I have moved it twice into nearly full sunlight all day onto a hillside, (10 to 15 degree slope), that has a gravelly loam soil. And it appears to be doing better. I also have one plant each of ROARING CAMP and *I. innominata* in the same location that have survived 3 winters, but these also have not bloomed.

Your comments in your editorial in the Spring *Almanac* regarding the use of tenax in the colder climates certainly makes sense.

Terry Aitken has sent seed from PACIFIC FROST, NIGHT EDITOR, DEEPENING SHADOWS, and ROARING CAMP, and Bennett Jones sent seed from PACIFIC RIM. Now if Colin Rigby was able to find tenax in a more northerly area in Washington state, I will watch for it in the next SIGMA seed list and get some.

There is no reason that we can't develop cold hardy varieties, if they can

develop heat-tolerant varieties in California. I think incorporating more tenax genes may be the answer.

Bob Ward, Little Rock, Arkansas

1994 was another good blooming season, including one great surprise with the Pacificas. It was not a good season for hybridizing, however, due to a heavy rainy season.

A few of my garden favorites are listed here, followed by the number of flower stalks per clump. SIERRA DELL (2), WOLKENTANZ (8), SHAMAYIM (6), BIG YELLOW (4), CALIFIA (4), BANBURY GNOME (6), ROVING EYE (3), HONTA YO (4), DAVID WARD (7), CHIMES (8), AGNES JAMES (12), BLACK EYE (2).

The surprise, is that *I. munzii* bloomed, having one bloomstalk. Munzii was sent to me four years ago by Jean Erickson. It came to me with rust disease, but after cutting all the rust areas out, the plant survived. This clump has gone through four winters without protection!

Other species blooming this year were: *Ii. innominata*, *tenax*, *tenax* subs. *klame-thensis*, *douglasiana*, *macrosiphon*, *purdyi*, *bracteata*, and *chrysophylla*. Several of these species have been here for over eight years.

Bloom time began on April fifth, and ended May first with a late-blooming douglasiana clone received from Dick Richards.

Failures usually occur within weeks after blooming, and the following slowly faded away: Sierra Dell, Roving Eye, a division of Big Yellow, and several dozen seedlings.

In order to keep stock increases, a division is made in October of each year, when a goodly portion is separated and planted in another part of the landscape. It would seem that some of the Pacificas are similar to some of the Penstemons for being short lived. Some of the "Pents" grow without any problems, while others will "drop dead" within days of planting.

My garden can be described as having 24 Japanese maples from two to thirty feet tall, and about a dozen bamboos in 55-gallon plastic containers. On the east side is a 60-foot Bald Cypress, and on the south, a 60-foot Dawn Redwood. Scattered through the garden are many perennials mixed into the iris plantings.

Janice and I had a number of visitors to the garden this year; and if you pass this way, you are welcome to see the garden.

Teresa Sage, Woodland Hills, CA

Editor's note: Teresa spoke of her method of setting out PCI in the garden from styrofoam pots in the Spring 1994 issue. Here, she follows through on the current status of her PCIs.

So far, most of my PCIs have survived our tremendous heat wave. For weeks now we have been sweltering under 100 plus temperatures together with humidity. My daylilies like these southern type temperatures. I have over 300 seedlings, many bloomed for the first time this summer with some pleasant surprises. I have also registered my first Pacific Coast native iris introduction, and was authorized to keep the name I had called it since it's first bloom, CALIFORNIA SKIES.

BORER UPDATE

Damage from *Amphipoea americana* var. *pacifica*, the coastal borer which has been attacking stands of Pacific Coast native iris in recent years, appeared to be much reduced this year.

Although Steve Edwards of the East Bay Regional Parks Botanic Garden reports that the population of native iris in this garden has been declining due to the borer, the iris plantings observed this year remained healthy and vigorous well into September. No insect control was practiced in the garden this year..

At the University of California Botanical Garden, however, Nancy Bromberg tells us that a saprophytic nematode drench was applied to all the native iris in the California native plant section. This is an enormous PCI population. Across the street in the Mather Redwood Grove area of the Botanical Garden, no control measures were used. This, provided a control for comparison. In both areas, however, whether treated or not, the iris were healthy and looked better than they had for some years!

PACIFIC COAST NATIVE IRIS SPECIES A HIT AT THE 1994 AIS CONVENTION

Adele Lawyer, Oakland, California

Although they were not on the program, and it was past their bloom time, wild PCI happened to be in bloom at two of the Portland tour gardens, the Ludi's and the Albrego's. They attracted the attention of many, especially those who had never seen the species *Californicae* growing without any help from gardeners.

A highlight of one of the days was when we glimpsed a showy clump of pink flowers as the bus was about to enter the Ludi's garden. The plant was blooming on the bank in the dry grasses along the road close to the entrance to Mountain View Iris Gardens. Garland Barr, author of an article on page 11 wherein he describes the difficulties connected with growing PCIs in Nebraska, was on the tour bus with us, and spotted it first. As soon as we could exit the bus, we turned around and went back to the road along

with many others, to see the plant at closer range. Garland was possibly the most excited of all of us! It was *Iris tenax*! It was a beautiful clump, and there were more than a dozen clear pink blossoms in their full glory! We all took turns taking its picture, and, as you can see, it was my turn at the moment.



Much-photographed PCI

ON THE SAFETY OF SPHAGNUM PEAT MOSS

The Canadian Sphagnum Peat Moss Association sent the Editor of SPCNI a mailing in June of this year pointing out that we need have no fear of adding peat moss to our garden or potting soil. Recent press releases have publicized the possibility of skin disease caused by the use of Sphagnum moss.

Sphagnum moss is distinct from Sphagnum peat moss. Sphagnum moss is the top portion of the sphagnum bogs. The sporotrichum fungus which can cause a skin disease inhabits only this layer. It is removed before the lower layers are exposed. This top layer, Sphagnum peat moss, which sometimes harbors the skin pathogen, *Sporotrichum*

schcenckii, is used primarily by florists to line wire baskets and to make wreaths; however, milled sphagnum moss is sometimes used to germinate seeds. It is unlikely that an infection will result unless an abrasion or cut is present on the hands, and the use of gloves would completely eliminate any cause for concern.

A local physician has advised us that sporotrichosis is a serious, ulcerous skin disease for which treatment may be available. It is advisable, therefore, to see your dermatologist if a skin problem occurs in conjunction with using milled sphagnum.

Sphagnum peat moss can be used without fear of fungal infection.

NEW MEMBERS and ADDRESS CHANGES

NEW MEMBERS

Bartlett, Nancy
3050 Estepa Drive,
Cameron Park, CA 95680

Barton, Rodney
3 Wolters Street.
Hickory Creek, TX 75065

Bell, Mrs. Count
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Doherty, Mary
21920 96th Street East
Buckley, WA 98321

Freund, Richard
12035 Rupp Hollow Rd.,
Dubuque, Iowa

Gibson, Dianna
330 P Street,
Port Townsend, WA 98368

Guidoux, Edith & Don
1464 Arbor Avenue,
Los Altos, CA 94024

Hallowell, Evelyn N.
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Inverness, FL 34450

Hart, Michelle
222a Cambridge Avenue,
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3214 96th South, A-6
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PO Box 28,
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Kirk, Anthony & Mela
4513-165th Avenue SE,
Issaquah, WA 98027

Mah, Daisy
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Sacramento, CA 95816

Matthews, Cal
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Pasadena, CA 91104

Nicoll, Alison
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Richmond Nelson, New Zealand

Ogilvie, Phil
1227 Franklin Street NE,
Washington, DC 20017

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Box 10501 Harris Road,
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Pru, George E.
2606 Norbert Way
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Rose, Bob and Mary,
4725 38th Avenue NE,
Seattle, WA 98105

Rosenberg, Emily
2000 Rosecrest Drive,
Oakland, CA 94602

Sarasua, David
3002 Breen Court,
San Jose, CA 95121

Stassi, Joseph
3132 Via La Selva,
Palo Verdes Estates, CA 90274

Stern, Lori
413 South Juanita Avenue,
Redondo Beach, CA 90277

Tanji, Susan
1431 Foothill Boulevard,
Santa Ana, CA 92705

Ward, Elaine
831 Alameda.
Tacoma, WA 98466

ADDRESS CHANGES

Gray, Mary M.
2610 East Ward Street,
Seattle, WA 98112

Nolan, Joseph W.
89759 Highway 101, N.
Florence, OR 97439

Paine, Joann P.
2301 NW Bayshore Loop,
Walport, OR 97394

Peat, Andrew D.
1401 Beddis Road,
Salt Springs Island, B. C. V8K Canada

Ploegstra, Steven & Brenda
3429 N. Machias Road.,
Lake Stevens, WA 98258

Seymour, Jana
346 Keystone Ct.
San Rafael, CA 94903

IN MEMORIAM

We regret to report the death of Joan Trevithick in England on July, 9, 1994. She edited the British Iris Society's beardless iris section newsletter, and the SPCNI shared information on Pacifica varieties with this section through her. Although the Pacificas were the tail end of the title of this publication, *The Siberian, Spuria, and Japanese Iris Group*, (including

Pacificas and Water Irises), she always made us feel the importance of any information on Pacificas she gleaned from the *Almanac*, and / or from communications from all growing areas. We will miss her input, and know that the BIS will find it difficult to replace her as an editor, and impossible as a gentle, productive human being.

1994-1995 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 Colin & Teressa Rigby, 18341 Paulson SW, Rochester, WA 98579

Unless otherwise specified, all seeds are open-pollinated
 Lot numbers of all Garden Hybrids begin with "940", all Species with "941"
 Lot numbers are followed by the donor-symbol, and the item.

SEED FROM NAMED GARDEN HYBRIDS

LOT #	DONER	VARIETY	94014	A	Fairy Chimes	94027	A	Pacific Rim
94001	A	All Shook Up	94015	A	Foothill Banner	94028	A	Poppy
94002	M	Augie	94016	A	Garden Delight	94029	L	Rincon
94003	J	Banbury Beauty	94017	A	Greenan Gold	94030	A	Rio Dorado
94004	M	Big Money	94018	A	Half Time	94031	A	Rustic Canyon
94005	A	Billy Blue Jay	94019	A	Little Jester	94032	A	Sierra Butterflies
94006	A	Blue Moment	94020	A	Little Toby	94033	A	Sierra Dell
94007	A	Califancy	94021	J	Los Olas	94034	A	Sierra Stars
94008	A	California Sister	94022	A	Mendocino	94035	A	Smuggler's Cove
94009	A	Candy Banner			Banner	94036	A	Sugar Candy
94010	A	Canyon Orchid	94023	M	Native Warrior	94037	A	Susie Knapp
94011	A	Coastal Glow	94024	A	Pacific Dazzler	94038	A	Tidy White
94012	A	Carrot Top	94025	A	Pacific Frost	94039	A	Western Queen
94013	A	Endless	94026	A	Pacific High	94040	A	Wild Time

SEED FROM MIXED GARDEN HYBRIDS

94041 A,F,L,O,Q,R A mixture of open polinated seed from each of the six donors.

SEED FROM UNNAMED GARDEN HYBRID SEEDLINGS

94042	A	XP1F: (Selected from Abell OP seed)	94051	A	XP215A: Selections from a cross involving Lawyer and Lenz sdlgs.
94043	A	XP69B: Munzii-derived hybrid	94052	A	XP224: Sierra Dell X Laguna Creek
94044	A	XP91: Lawyer sdlg. X Lenz sdlg. (Good source of Lenz-type flowers)	94053	A	XP228B: Sierra Dell X Good blue seedling
94045	A	XP104A	94054	A	XP235: Sierra Dell X Lenz sdlg.
94046	A	XP143: Sierra Dell X a Lenz-Lawyer seedling	94055	A	Abell 1: Pale blue Thornton Abell selection
94047	A	XP164A: Lawyer sdlg X Lawyer sdlg.	94056	A	Mixed Munzii seedlings
94048	A	XP202: Sierra Dell X Lenz sdlg.	94057	M	Valley Banner Types
94049	A	XP210: Selections from a cross involving 2 good blues.	94058	J	B35-23 (Western Queen X Night Messenger)
94050	A	XP214A: Sierra Dell X Abell sdlg.			

CALIFORNICAE SPECIES

94101	H	<i>I. bracteata</i> , Near O'Brien, OR	94106	A,C	<i>I. hartwegii</i> , Yellow. Tuolumne County, CA
94102	D	<i>I. douglasiana</i> , Derr garden, Estacada, Clackamas County, OR	94107	A,C	<i>I. hartwegii</i> , Herring Creek Rd, 6800 ft., Tuolumne County, CA
94103	A	<i>I. douglasiana</i> , From the Dembowski garden, Oakland, CA	94108	N	<i>I. hartwegii</i> ssp. <i>australis</i> , Lake Arrowhead, San Bernardino Forest. CA
94104	A	<i>I. douglasiana</i> , From the Univ. of CA Botanical Garden	94109	E	<i>I. thompsonii</i> ? High Divide Rd., Del Norte County, OR
94105	A	<i>I. douglasiana</i> , Late season lovely white flower. Duane Meek selected, Sandy, OR	94110	C	<i>I. innominata</i> China Flat, Coos County, OR

- 94111 A,C *I. macrosiphon*, yellow. Harrington Flat Rd., Lake County, CA
 94112 G *I. macrosiphon*, Indian Valley College grounds, Marin County, CA
 94113 C *I. munzii*, Bear Creek area, Tulare County, CA
 94114 S *I. purdyi*, Mendocino County, CA
 94115 E *I. tenax*, Eden Valley, 2300 Ft., South Coos County, OR
 94116 E *I. tenax* X *I. chrysophylla*. Mt. Bolivar, 3200 ft., Curry County, OR
 94117 B *I. tenax*, Botkin Creek, Benton County, OR
 94118 D *I. tenax*, Monument Peak, OR
 94119 H *I. tenax*, Blue-violet to purple
 94120 H *I. tenax*, Purple. Grown from seed collected at Cape Perpetua, OR
 94121 K *I. tenax*, Near Sutherlin, Douglas County, OR
 94122 P *I. tenax*, Open pollinated, England
 94123 F *I. tenax*, Light shades. North of Napavine, WA
 94124 A *I. longipetala* from the U. C. Botanical Garden. Not a PCI, but an interesting California member of the *I. missouriensis* group.

DONORS

- A Lewis and Adele Lawyer, Oakland, CA
 B Bill and Jeanne Ferrell, Philomath, OR
 C Gene and Joanne Loop, Walnut Creek, CA
 D Claude and Joanne Derr, Estacada, OR
 E J.V. Lawrence, Woodland, WA
 F Colin and Teressa Rigby, Rochester, WA
 G Louis and Caroline Fry, Novato, CA
 H Shirley Lutz, Longview, WA
 J Joan Trevithick, (deceased), Radcliffe-on-Trent, Nottingham, U.K.
 K Rickie Campbell
 L John Weiler, Fresno, CA
 M Loretta Figueroa, Mill Valley, CA
 N Joyce Barkley, Southern California
 O Gigi Hall, Fremont, CA
 P Bob Potterton, Caistor, Lincoln, U.K.
 Q Ralph Conrad, Bonsall, CA
 R John Marchant, Walnut Creek, CA
 S Nicholas Di Orio, Garberville, Mendocino County, CA

OF INTEREST TO PURCHASERS

Those of you who are interested in cold tolerance should consider seed from Pacific Frost and Pacific Rim, items 94025 & 94027, as well as *I. tenax* items 94115 through 94123. You might also consider *I. hartwegii* which grows in the high mountain regions of California, items 94106 through 94108. Those of you who are interested in the other end of the thermometer, heat tolerance, should consider seed from Califancy, Little Toby, Rincon, Susie Knapp, and Tidy White, items 94007, 020, 029, 037 and 038.

Anyone interested in "munzii blue" should choose some of the Lawyer seedling offerings. Although they are primarily from open pollinated flowers, the bees in the area of the Lawyer garden

where they were grown have little else to choose from other than another munzii selection. These are items 94042 through 94058. Also you should again be reminded that seed from the named varieties from the Lawyer garden also have a chance of munzii influence.

True species buffs should choose species seed from wild sources rather than from a garden. In the botanic gardens, however, the species are usually planted far enough apart to be mostly pure. For the non-buffs, the slightly mixed up seed could be much more exciting than the pure, so make your own choice.

You are again reminded that seed lot 94114 is a rare opportunity to obtain pure *I. purdyi*.

NOTICE TO ALL SPCNI MEMBERS

Please note the absence of *Iris chrysophylla*, *I. fernaldii*, *I. hartwegii* subs. *pinetorum*, *I. tenax* subs. *klamathensis* and *I. tenuissima* subs. *purdyiformis* from our list. If any of you are able to collect seed of these species, please send them to the Seed Chairman for next year's offer-

ing. We would also appreciate information on altitude and/or temperatures when the collected wild iris come from localities where the extremes of hot, cold, or high humidity would make them suitable for breeding for tolerance to such stressful conditions.

PCI REGISTRATIONS & INTRODUCTIONS

1993

BROADLEIGH CAROLYN (Broadleigh Gardens, R.1993) 18" (46cm) M. S. pale blue, deeper blue veining shading to purple; F. pale blue, purple eye, deep purple-red veins. Unknown parentage.

BROADLEIGH DOROTHY (Broadleigh Gardens, R.1993) 14" (36cm) M. S. Cream, washed brownish violet with blue lines; F. brownish red, golden eye, dark red veins. Unknown parentage. Broadleigh Gardens, 1985.

BROADLEIGH ELIZABETH (Broadleigh Gardens, R.1993) 18" (48cm), M. S. pale purple with deeper veins. F. bright purple with dark purple veins. Unknown parentage.

BROADLEIGH JOAN (Broadleigh Gardens, R.1993) 14" (36cm) M. S. pale yellow; F. pale yellow, dark yellow eye, brown veining. Unknown parentage. Broadleigh Gardens, 1979.

BROADLEIGH JOYCE (Broadleigh Gardens, R.1993) 24" (61cm) M. S. pale lilac with deeper center, veined blue and purple; F. violet, pale blue rim, white eye, dark violet center marking. Unknown parentage.

BROADLEIGH LAVINIA (Broadleigh Gardens, R.1993) 18" (46cm) M. S. pale cream, veined purple; F. purple wash over cream ground, dark red-purple eye, purple veins. Parentage unknown. Broadleigh Gardens, 1977.

BROADLEIGH MITRE (Broadleigh Gardens, R.1993) 24" (61cm) M. S. lilac; F. lilac, deepening toward center, white eye, pronounced yellow central midrib, deep violet veins. Parentage unknown. Broadleigh Gardens, 1978.

BROADLEIGH NANCY (Broadleigh Gardens, R.1993) 14" (36cm) M. S. pale blue, veined purple; F. pale blue, washed purple, white eye, purple veins. Parentage unknown. Broadleigh Gardens, 1990.

BROADLEIGH SYBIL (Broadleigh Gardens, R.1993) 14" (36cm) M. S. biscuit with purple veins; F. biscuit shaded purple, yellow eye, deep purple veins. Parentage unknown. Broadleigh Gardens, 1973.

BROADLEIGH VICTORIA (Broadleigh Gardens, R.1993) 18" (46cm) M. S. biscuit shaded lilac, purple veins; F. reddish purple, paling toward rim, white eye, pronounced yellow ring and central midrib, dark violet veins. Parentage unknown. Broadleigh Gardens, 1983.

CACHE CREEK (Colin Rigby, R. 1993). Sdlg. PCN 54. 12-14" (35cm), M. White with pale blue cast, small light yellow signal. Canyon Snow x sdlg. Portable Acres, 1993.

CARMEL MISSION (Joseph. Ghio, R. 1993). Sdlg. PG-166-02. 12" (30cm), ML. Burnt orange with deep orange ray signal. PI-MIX-U, unknown, X PJ-178D; ((Peanut Gallery x Villa Branciforte sib) x (San Gregorio x (Montera sib x Mission Santa Cruz sib))). Bayview Gardens 1994.

CHARTER MEMBER (Joseph. Ghio, R. 1993). Sdlg. PG-172-U2. 11" (28cm), E. Orchid pink, solid mahogany pink signal. PI-MIX-pink, unknown, X Herald. Bay View Gardens 1994.

CLEVER DEVIL (Joseph. Ghio, R. 1993). Sdlg. PQ-145Q. 12" (30cm), EM. S. rusty wine; F. apricot washed wine. PI-201J, Villa Montalvo sib, X PI-209V2, Santa Clarita sib. Bay View Gardens 1994.

DUENNA (Nora Scopes, R. 1993). Sdlg. 36A, 15" (38cm), M. Deep purple, lighter in center of F. Las Olas X unknown.

ESCALONA (Joseph. Ghio, R. 1993). Sdlg. PG133-F2, 12" (30cm), EM. S. light crimson; F. crimson, gold-wire edge, black signal with fingers over the F. Bottom Dollar sib X It's Wild. Bay View Gardens 1994.

FLOATING WORLD (Nora Scopes, R. 1993). Sdlg. PC38A. 15" (38cm), M. S. purple; F. white, edged and marked violet, round and flat. Seed from SS&J Group (BIS). Unknown parentage.

GOLD NIMBUS (Eleanor Zimmerly, R. 1993). 15" (38cm), M. Ruffled yellow self; slight spicy fragrance. *Iris douglasiana*, OP

GREETING CARD (Joseph. Ghio, R. 1993). Sdlg. PG-176-12. 14" (36cm), ML. S. blue-orchid-pink; F. apricot with blue-pink overlay, neon violet signal. PI-MIX-A,

unknown parentage, X PI-209V, Santa Clarita sib.

HANDS ON (Joseph. Ghio, R. 1993). Sdlg. PG-144B. 13" (33cm), EM. Rust with slight black signal; yellow style arms. Villa Montalvo X PI-MIX-D, unknown. Bay View Gardens 1994.

HINEMOA (Heather Collins, R. 1993). Sdlg 1/3/81. 20" (50cm), E-L. S. pale lavender, purple midrib, laced; F. pale lavender, pale blue stripe at end of deep yellow signal surrounded by white veining. Unknown parentage.

HOT NUMBER (Joseph. Ghio, R. 1993). Sdlg. PG-166L. 11" (28cm), ml. Bronzed orange self. PI-MIX-U, unknown, X PJ-178D: ((Peanut Gallery x Villa Branciforte sib) x PL-230E: (San Gregorio x (Montera sib x Mission Santa Cruz sib))). Bay View Gardens 1994.

JEAN ERICKSON (Colin Rigby, R. 1993). Sdlg. PCN 56. 12-14" (35cm), M. S. light blue-violet, red-violet midrib; F. light blue-violet, dark red-violet signal and few veins, light blue wash below signal area. Canyon Snow X PCN 12: (Meek 269 x Sierra Sapphire Third). Portable Acres 1993.

LA SELVA BEACH (Joseph. Ghio, R. 1993). Sdlg PG-133H. 11"(28cm), M. S. gold; F. gold, maroon signal darkening to black in center with dark lines extending to edge. Bottom Dollar sib X It's Wild. Bay View Gardens 1994.

LUNAR ECLIPSE (J. Terry Aitken, R. 1993). Sdlg. 86PC9A. 12" (30cm), M. S. light violet with dark center and white rim; F. dark violet, near black signal, ruffled white rim. Unknown parentage. Aitken's Salmon Creek Garden 1993.

MISTRESS PERRY (Colin Rigby, R. 1993). 8" (20cm), M. Lightly ruffled full medium yellow, veined darker on F. Fairy Chimes X yellow *Iris innominata*. Grown from seed obtained from SPCNI or SIGNA. Portable Acres 1993.

PEACOCK PAVANE (Nora Scopes, R. 1993). Sdlg. PC37. 15" (38cm), M. S. mauve; F. white ground with rich purple markings forming a peacock eye pattern. Spring Daze X unknown.

PINK CUPID (Vernon Wood, R. 1993). Sdlg 9121. 11" (28cm), E-M. S. pink (RHS 56B), red-purple (64B) line down center; F. pink (56B) with some red-purple (64B) lines nearly solid in center, and halfway

down, small bright yellow spot at tip of center pattern. 89-7: (Roaring Camp x 87-9) X Riva. Portable Acres 1993

RAINBOW CONNECTION (Joseph. Ghio, R. 1993). Sdlg. PG-145C. 12" (30cm), EM. Apricot ground infused rusty wine, deep wine signal. PI-201J, Villa Montalvo sib, X PI-209V2, Santa Clarita sib. Bay View Gardens 1994.

SEA GAL (Lois Belardi, R. 1993). Sdlg PDI-2. 18" (46cm), M. S. medium true blue; F. white ground washed medium true blue, small yellow signal; ruffled. PHD-8: Pacific High x Del Rey X Idylwild.

SKYLASH (Lois Belardi, R. 1993). Sdlg PDI-1. 18" (46cm), M. Heavily ruffled pure white with 3/8" medium blue eyelash around small yellow signal. PHD-8: (Pacific High x Del Rey) X Idylwild.

SPANISH DON (Joseph Ghio, R. 1993). Sdlg. PG-154K. 13" (33cm), EM. Bright gold with green throat. PI-211J: (Black Eye sib x (Napa Valley x Western World)) X PI-MIX-W2, unknown. Bay View Gardens 1994.

WHITEONE (Heather Collins, R. 1993). Sdlg. 2/1/87. 19" (48cm), M. S. clear white, deep yellow midrib; F. Clear white, gold ray pattern edged grey surrounding deep yellow signal; fluted edges. Unknown parentage.

CALSIBES

PACIFIC SMOOTHIE (Lorena Reid, R. 1993). Sdlg. CS86-27-G4-6. 30-36" (75-90cm), M. S. violet, deeper at center, pale edge; tailored style arms edged darker; F. dark violet, large unmarked black-violet signal. Enbee Deeaych X Wild Party. Laurie's Garden 1993.

PARTY PALEFACE (Lorena Reid, R. 1993). Sdlg. CS86-27-G4-3. 30-36" (75-90cm), M. S. near white with some faint blue-orchid markings; pale violet style arms, flaring blue-violet crests; F. reddish violet, near white ruffled edge, small gold sunburst line pattern in signal area. Enbee Deeaych X Wild Party. Laurie's Garden 1993.

TIMPCALS (Tomas Tamberg, R. 1993). Sdlg. SSTT268. CAL-SIB (tet.), 28" (70cm), M. S. beige; F. light rose-violet, signal area veined yellow. 8300: (Starting Calsibe x (Yellow Chrys x *I. innominata*)) X blue Calsibe hybrid of unknown parentage.