

# THE REVIEW

OF THE SOCIETY  
FOR  
JAPANESE IRISES

VOLUME 28

NUMBER 1

SPRING, 1991

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THE REVIEW  
OF  
THE SOCIETY FOR JAPANESE IRISES      SPRING, 1991

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Display Garden Chr.	Mrs. William E. (Claire) Barr See address above.
Awards & Registrations	Rich Randall, 524 Windsor Gate Road, Virginia Beach, VA 23452      Tel. (804)340-9077



**CAPRICIAN BUTTERFLY**  
**W. Marx by D. Rogers (1985)**

**1990 Payne Award winner**

photo by L. Welsh

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## BUSINESS ITEMS

"The Review" is published semi-annually by the Society For Japanese Irises. Editorial office is at 7979 West D Ave., Kalamazoo, MI. 49009. Deadlines for receiving copy are March 1 and September 1; with earlier receipt desirable. Black & white photographs and drawings are welcome. Reprinting is by permission of the writer and editor, with due acknowledgement.

**Dues:** Single annual, \$3.50; triennial \$9.00; life \$75.00:  
Family annual, \$4.00; triennial, \$10.50; life, \$100.00  
Send either to the AIS membership chairman, or directly to **The Society For Japanese Irise's Membership Chairman.**

**Renewals:** If your mailing label is marked with the expiration date 9101 this will be the last copy of "The Review" on your present membership. Please renew. If you have just recently sent in your dues, ignore this notice as there is an inevitable gap in passing along the information.

**Address Changes:** Please notify the **Membership Chairman.**

**Sales and Rental Items:** **The Japanese Iris** by Currier McEwen \$24.95

**Back Issues of "The Review",** per copy \$1.50  
Volume 1 (1964) consists of three issues, all subsequent volumes contain two issues each.

**The 1988 Cumulative Checklist of JI** \$4.00

**SJI Slide Set rental.** \$5.00

All prices include postage. Send your requests to **Slides/Librarian Chairman, John Coble,** with check made out to **The Society For Japanese Irises.** Please order slide sets early for scheduling.

**Advertising:** Will be accepted for plants and horticultural related items. Charges are: Full page layout, \$18.00; ½ page layout, \$10.00; short adds, text only, \$2.00 for up to five lines and for each additional five lines or fraction thereof.

For information on how to prepare and submit adds, contact the **Editor.** Send adds to the **Editor** with payment in the form of a check made out to **The Society for Japanese Irises.**

## THE PRESIDENT'S LETTER

Another iris season will be upon us soon and I'm looking forward to a beautiful and relaxing season. The last minute hustle and bustle of preparing for a convention is in someone else's hands this year. I've eagerly sent in my registration for the Oregon gathering of JI lovers. It will be fun to see what they grow and how it's grown on the other side of the U.S.A.. I hope many of you will join me there.

Last year THE JAPANESE IRIS book was published. I urge you to purchase this reference book. It's not only beautiful but it's full of updated information about the Japanese Iris and it's proper culture.

Jill Copeland presented the new point system for judging Japanese irises to the Convention in Maine. The Convention voted support and the Board approved the new point system for both Garden and Exhibition judging. It was presented to and approved by the AIS Board at their fall meeting. These revisions will be sent to all judges along with the judge's ballots.

This year Howard Brookings is working on a new up-dated cumulative checklist, and Clarence Mahan is beginning the gigantic task of straightening out the AIS registration of Japanese Irises. I urge you to volunteer to help collect much needed descriptive information for them.

I don't have any special goals in mind during my tenure in office. I want the Society to continue healthy growth and have more shows so the general public will also become enchanted with the Japanese Iris. I'd like to have you show your local nurseries what Japanese Irises really look like and help them find properly registered and introduced irises to sell to their customers. Our total membership, working with their local nurseries, could help our Society in it's campaign to have all cultivars in commerce properly registered by January 1, 1995. Is this an impossible task? Maybe. But, let's try.

Sincerely,

Shirley Pope

# 1991 JAPANESE IRIS CONVENTION

Portland, OR — June 13, 14, 15

## REGISTRATION

\$75.00/Person  
(5/31/91 = Late Registration = \$85.00)  
Duane & Joyce Meek, Registrars  
7872 Howell Prairie Rd., N.E.  
Silverton, OR 97381  
(503) 873-7603

## HOTEL

Ramada Inn (formerly  
Exec-U-Lodge)  
6221 N.E. 82 Ave.  
Portland, OR 97220  
1-(800) 423-3047  
\$50 + tax 'till 5/31/91

Delta Air Lines has offered special rates (also apply to "Senior Discount Coupons"). Call 1-800-221-1212, ask for the Special Meeting Network and refer to file #R28018.

## CONVENTION ACTIVITY SCHEDULE

### THURSDAY, JUNE 13

12:00-5:30 Registration  
2:00-4:00 SJJ Board Meeting  
6:00 Social Hour - Cash Bar  
7:00 Opening Banquet

### FRIDAY, JUNE 14

7:30 Buses Leave for  
Aitken Garden  
Harris Garden  
Japanese Garden  
Caprice Garden  
4:30 Buses Return  
Dinner On Your Own  
7:30 Judges Training

### SATURDAY, JUNE 15

7:00 Buses Leave for  
Schreiners Garden  
Laurie's Garden  
Meeks Garden  
4:30 Buses Return  
6:30 Social Hour  
7:30 Banquet/Auction

## PARTIAL REGISTRATIONS:

Thursday	—	Opening Banquet	—	\$15.00
Friday	—	Bus Tour/Box Lunch	—	\$24.00
Saturday	—	Bus Tour/Box Lunch	—	\$24.00
Saturday	—	Closing Banquet	—	\$22.00
Registration Fee/Booklet (Required)	—		—	\$ 3.00

(MAKE CHECKS PAYABLE TO THE GREATER PORTLAND IRIS SOCIETY.)

REQUEST FOR JAPANESE AND SPURIA  
IRIS GUEST

1993 SOCIETY FOR JAPANESE IRISES CONVENTION  
VIRGINIA BEACH, VA.

The Tidewater Iris Society will host the 1993 Society for Japanese Iris Convention. The guest iris committee invites hybridizers to send guest rhizomes of recent introductions and seedlings under serious consideration for introduction.

When sending guest irises, please observe the following guidelines:

1. Up to four rhizomes of each variety will be accepted.
2. Guest rhizomes will be accepted from August 1 to October 1, 1991.
3. The following information should accompany each plant.
  - A. Hybridizer's name and address
  - B. Name or number of variety or seedling
  - C. Type of iris
  - D. Height and color
  - E. Year of introduction
4. A receipt will be mailed to all contributors listing the garden locations of the plants. Plants will be handled with full courtesy to the hybridizer. We will exercise all precautions to see that plants do not set seed or that the pollen be used. The guest iris committee will not be responsible for losses beyond its control, reports of losses will be promptly issued to the hybridizer.
5. Only rhizomes received through the guest iris chairman will be listed in the convention booklet. When guest irises are named, it will be the responsibility of the hybridizer to notify the guest iris chairman not later than December 1, 1992.
6. You will be sent a picture of your variety as it is growing in the guest garden, and a report on its performance.
7. We are planning on 8 guest gardens.  
All guest rhizomes, or any correspondence on guest irises must be sent to:

Rich Randall  
524 Windsor Gate Road  
Virginia Beach, VA 23452  
Phone: (804)340-9077



8. When responding, mail to above guest iris chairman the following information:

After the show, I wish my plants to be handled as follows:

- ☐ Dispensed at the discretion of the show committee.
- ☐ Sold at auction, proceeds to corresponding section of AIS.
- ☐ Returned, I will send shipping instructions.
- ☐ Destroyed.
- ☐ Other

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State or other postal code \_\_\_\_\_

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#### FUTURE SJI CONVENTIONS

- 1991 - Portland, Oregon --- June 13-15
- 1992 - Kalamazoo, Michigan --- July 3-4
- 1993 - Virginia Beach - Norfolk, VA --- June 3-5
- 1994 - Summerville, South Carolina
- 1995 - Washington D.C.
- 1996 - Open

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#### THE SJI POPULARITY POLL

It is time to start thinking about the popularity poll again. We did not meet our goal of over 100 participants last year, in fact we only had 58, a decrease of 3 from the previous year. So how about it, over 100 this year??? It would be nice!

All members are urged to participate. See as many JI's as you can this bloom season, select your favorites, and VOTE.

You will find a ballot on the last page of this issue. It is to be cut out and used for mailing your vote. As a suggestion, how about photocopying it and carrying a copy with you when visiting a garden, for making notes? Whatever works for you, but do let us hear from you.

The results will be published in the next issue of "The Review."

## NEW JI JUDGING STANDARDS ADOPTED

New standards for judging Japanese irises were developed last year by a committee of SJI members, with Jill Copeland as chairman. The proposed standards were published in the Spring, 1990 issue of "The Review", Volume 27, Number 1, on pages 31-37. These proposed standards were then presented to the SJI membership present at the SJI Convention in Portland, Maine, where they were discussed and approved with a few changes. The standards, as amended, were then forwarded to the AIS Board of Directors for action at their fall, 1990 meeting. The AIS Board of Directors adopted the proposed standards, and approved their publication as a revision to the "Judge's Handbook."

The new standards are to be sent to all currently active AIS judges. If you are not an active judge but own a "Handbook", or are simply interested in obtaining a copy of the Japanese Iris Section for the "Handbook", you should contact the AIS Publication Sales Director, C. J. Lack, for information.

These standards are now approved, and should be used by all judges who are evaluating Japanese irises, whether in the garden or on the show bench.

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## REGION #1 DONATION TO SJI

Word was received too late of the donation from the 1990 Region 1 Apogon Auction for its inclusion in the fall issue of "The Review."

The auction netted \$400 for the sale of Japanese irises which was donated to the SJI Treasury. We extend our appreciation to Region 1, and to those who work so hard every year to make this auction a success, for their continued support of SJI.

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## 1991 REGION 1 APOGON AUCTION

Region 1 will hold its annual Apogon Auction on September 8th. The location has not yet been determined. There will be a program at 10:30 AM, a sale at 12:30 PM, and the auction will begin at 1:00 PM.

The success of this auction depends upon the donation of beardless irises by hybridizers and growers. Those who may wish to contribute plants are encouraged to do so. For further information contact Jan Sacks or Marty Schafer at:

45 Elm Street  
Bedford, MA 01730

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## SJI MEETINGS FOR 1991

There are two meetings of the SJI Board of Directors scheduled for this year. The first of these is on the afternoon of Saturday, May 18, at the AIS Convention in Washington, D.C.. The second meeting is scheduled for 2:00 PM Thursday, June 13, during the SJI convention at Portland, Oregon.

A general Section Meeting for members and friends of SJI will be held at the AIS Convention on Sunday, May 19th.

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### JUDGE'S TRAINING ON JI AT AIS CONVENTION

One of the three concurrent judge's training sessions at the AIS Convention in Washington will be on Japanese irises. These sessions will be at 7:00 PM, Tuesday, May 21st. The training on Japanese irises will be conducted by Jill Copeland.

This will be an excellent opportunity for anyone needing training on Japanese irises to obtain it. It will also be an opportunity for all to be introduced to the new standards for judging Japanese irises.

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### REQUEST FOR SEED

In correspondence between the editor and Trevor Nottle of Australia, it was revealed that the importation of plants into Australia is becoming a very expensive and difficult undertaking. At least for the average gardener. Trevor has indicated interest in doing some hybridizing with JIs. The types of color and pattern combinations that he would especially like to try for are those shown by the following varieties:

TUPTIM, JAPANESE PINWHEEL, POPULAR ACCLAIM, HUE AND CRY, WOUNDED DRAGON, CASCADE CREST, FRILLED ENCHANTMENT and SHIN-ASAHI-NO-YUKI.

If anyone has extra hand pollinated seed or bee pods on any of these varieties, or similar types, I am sure that Trevor would appreciate your sending it to him. His address is as follows:

Trevor Nottle  
"Walnut Hill"  
5 Walker Street  
Stirling  
Sth Australia 5152

The editor also noted with interest in a recent catalog received from "The Garden Connection", Ibis Books, that Trevor has authored three books, the titles are: GROWING OLD FASHIONED ROSES, THE COTTAGE GARDEN REVIVED, and GROWING PERENNIALS. The later was listed in the catalog received.



## 1991 SCHEDULED JAPANESE IRIS SHOWS

Information has been received regarding the following shows scheduled for this year. Anyone who has blooms to exhibit, or who wishes to see a show featuring Japanese irises, is welcome to participate in or visit any of these shows. The shows are listed in order of occurrence.

### Oakland, California --- May 26.

The Sidney B. Mitchell Iris Society is planning to stage its first late blooming iris show this year. The show is timed to feature Japanese irises.

Location for the show is the Lakeside Park Garden Center, 666 Bellevue Ave., Oakland, CA.. Entries will be taken from 7-9:30 AM. Judging will be at 10 AM with the show open to the public from 1-5 PM.

A two hour judges training class will be conducted at 2 PM by Mary Dunn and Glenn Corlew. Emphasis will be placed on judging Japanese and Louisiana irises, and include discussion of spuria and some other types of beardless irises.

For further information please contact the show chairman:

David A. Lennette  
1225 Court St.  
Alameda, CA 94501  
Tel. (415)521-7053

### Summerville, South Carolina --- June 1.

The Summerville Iris Society will present its 13th JI Weekend May 31-June 1, at the Cuthbert Community Building, 101 W. 5th St. South, in Summerville, SC.

There will be two hours of judges training on awards and ballots presented by Adolph Vogt and John Wood as moderators on Friday evening, May 31st. This will be from 5 to 7 PM at the Community Building, followed by refreshments.

Entries in horticulture classes may be made and staging for design entries put in place from 8-9 PM Friday evening, and from 7-9 AM Saturday morning. Refreshments will be served during the morning placement time. Iris judging will be at 9 AM, with design and companion plant sections being judged at 11 AM. Theme for the show is "Happiness". Peggy Beason is show chairman and Claudie Hucks is co-chairman.

The bus tour will leave approximately 10 AM on Saturday with lunch served enroute. The show will be open to the public from 1-4 PM on June 1st, and will remain in place until 8 PM to allow our guests viewing time after the bus returns from garden tours and during the auction. Supper will be furnished by Quincy's of Summerville.

Registration for the two days is \$25.00. Make a check out to Summerville Iris Society and mail to Peggy Beason, R#2 Box 584, Summerville, SC 29483. Peggy's phone number is (803)688-4414. Room reservations may be made with Comfort Inn



(803)851-2333 (at I26 and 17A), Econo Lodge (803)-875-3022 (at same area), Holiday Inn (803)875-3300 (same area) and Hamilton Motel (803)875-0220 (within walking distance).

Design entries for the show are to be done in a creative manner. There are 4 spaces allowed for each class. The classes are: (1) THE TEMPLE, a horizontal floor design; (2) IRIS BLESSINGS, to be staged on a pedestal (for novices only); (3) FESTIVALS AND FLOWERS, a parallel design; (4) "BOUND AND FREE, a Moribana design and (5) ORIENTAL EXPRESS, a creative design. For further information regarding design entries please contact the design entries chairman, Claire Honkanen, at (803)886-4691.

In the iris division there will be classes for all types of iris, and JI seedlings. Green bottles will be furnished. In the companion plants division there will be classes for annuals, 3 of a kind and a specimen; perennials, a specimen and 3 of a kind; roses, 12" stem except miniatures, specimen bloom 2/3 open and fully open, climber single stem and miniature specimen; blooming shrubs 12-30"; foliage cut plant material, 3 leaves or 3 stems of the same plant; and ivy, 12"-30", (a) small leaf and (b) large leaf. The exhibitors are to provide their own green bottles for the companion plant division. Wedges will be furnished or you may use your own.

No judge will be permitted to enter a division in which he is judging. AIS awards and National Council awards will be given if merited plus special awards by SIS members to top award winners. The J.B. and Agnes Hale Memorial Award will be given to the best JI seedling.

#### **Virginia Beach, Virginia --- June 1**

The Tidewater Iris Society will hold its first Japanese iris show at the Lynnhaven Mall, Virginia Beach, VA. Chairman for the show is D. J. Kelly. For further information contact her at:

1289 Holly Point Rd.  
Virginia Beach, VA 23454  
Telephone (804)496-0852

#### **St. Louise, Missouri --- June 8**

The Greater St. Louis Iris society will present its annual Beardless Iris Show on June 8th, 1991 at the Missouri Botanical Garden. Theme of the show is "Makin Whoopee." Don Delmez is Chairman of the show and Roy Bohrer is design chairman.

This is an AIS approved show, accredited AIS judges will judge entries in the Horticulture Division and qualified design judges will judge entries in the Design Division.

Entries will open at 7 AM and close at 9:45 AM. Judging will begin at 10 AM.

For additional information contact:

Don Delmez  
3240 Connecticut  
St. Charles, 63301  
Tel. (314)724-4274

## **Washington D.C. Area --- June 22**

The Washington D. C. area show will be hosted by the Francis Scott Key Iris Society and sponsored jointly with the Chesapeake and Potomac Iris Society. Location will be the Chatham Mall in Ellicott City, Maryland. Chairman for the show is Mrs. Andrew C. (Carol) Warner, for further information contact her at:

16815 Falls Rd,  
Upperco MD 21155  
Tel. (301)374-4788

## **Portland Oregon**

The Portland area will not stage a show this year because of logistic problems due to hosting the SJI Convention. All people interested in seeing Japanese irises are urged to consider attending the convention. For details about the convention see separate article in this issue.

## **Harrisburg, Pennsylvania --- June 22**

The Harrisburg area Beardless Iris Show will be held June 22, 1991, at the Harrisburg East Mall in Wanamaker Court. All beardless iris growers are invited to exhibit. For more detailed information contact the show chairman:

Dorothea Marquart  
2060 Good Hope Road  
Enola, pennsylvania 17025

## **Kalamazoo, Michigan --- June 29**

The Southwestern Michigan Iris Society will hold its 17th show of Japanese and other late blooming irises on June 29th. The show will be at the Crossroads Mall, S. Westnedge Ave., Portage, Michigan. Theme for the show is "Kaledoscope." There will be divisions for horticultural specimens, seedlings, artistic arrangements (with 8 classes based on the show theme), and educational exhibits. The horticultural division will be staged as a cultivar show, with sections for Japanese, and any other late blooming iris. All who grow irises are welcome to exhibit.

Entries will be accepted from 8-10 AM, Judging will be at 11 AM and the show open to the public from 12:00 noon to 8:45 PM.

In addition to the iris show, there will be an Ikibana Sogetsu exhibit and demonstration by Sylvia Wong. The demonstration is timed for 3 PM.

For more information please contact the show chairman:

Leland M. Welsh  
7979 West D Ave.  
Kalamazoo, MI 49009  
Tel. (616)349-9253

## Weston Massachussetts --- July 6

The Iris Society of Massachussetts will hold its Japanese Iris Show at The Barn, at Weston Center, MA. It will be joined by the Maine Iris Society. For further information contact Marty Schafer or Jan Sacks at:

45 Elm St.  
Bedford, MA 01730  
Tel. (617)275-7723

Best wishes to all shows that you may have success with your displays and in creating interest in Japanese irises.

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## JAPANESE IRIS DISPLAY GARDENS

Claire Barr

There are two changes to be noted in this 1991 listing of the Japanese Iris Display Gardens:

1. Mrs. Florence Stout, of Lombard Illinois, (Region 9), has written to say that she will no longer be able to list her garden. Our thanks to Mrs. Stout for participating in the display garden program.
2. There is one new garden listed, the first in Region 8. Welcome to Howard Brookings, of Menominee Falls, WI.

It has come to my attention that there were two errors in the listing of the gardens in the spring issue of The Review last year. In that issue Lillian Champion, of Yucaipa, California, (Region 15), was left out, and Donald Delmez, of St. Charles, Missouri, was mistakenly listed under Region 15 instead of Region 18. We regret these errors.

The owners of these gardens invite you to contact them and visit their gardens during bloom season. This is an opportunity to see Japanese irises grown well. In a later issue of The Review we hope to give some information from the garden owners on the 1991 bloom season.

## 1991 JAPANESE IRIS DISPLAY GARDEN LIST

### Region 1.

1. Dr. and Mrs. Currier McEwen, Seaways Gardens, Route 1, Box 818, South Harpswell, ME 04079 Tel. (207) 833-5438 Peak bloom July 7-21.
2. Mrs. Maurice B. Pope, Jr., 39 Highland Ave., Gorham, ME 04038 Tel. (207) 839-3054 Peak bloom Mid-July



### Region 3

1. George C. Bush, 1739 Memory Lane Extd., York, PA 17402  
Tel. (717) 755-0557 Bloom Mid-June to Mid-July
2. Mr. and Mrs. Sterling U. Innerst, 2700A Oakland Road,  
Dover, PA 17315 Tel. (717) 764-0281 Bloom June  
6-July 10.

### Region 4

1. Dr. William Ackerman, 18621 Mink Hollow Road, (P.O.  
Box 120), Ashton, Md. 20861 Tel. (301) 774-7538 Peak  
bloom Mid June.
2. Mr. and Mrs. Clarence Mahan, The Iris Pond, 73131  
Churchill Road, McLean, VA 22101 Tel. (703) 893-8526  
Bloom June 1-July 7.
3. Mrs. Andrew C. Warner, 16815 Falls Road, Upperco, MD.  
21155 Tel. (301) 374-4788 Peak bloom June 15-30.
4. Nicholls Gardens, Michael and Diana Nicholls, 4724  
Angus Drive, Gainesville, VA 22065 Tel. (703)  
754-9623 Bloom Late May to Early July.

### Region 5

1. Mrs. Wells E. Burton, 3275 Miller Drive, Ladson, SC  
29456 Tel. (803) 873-7388 Bloom Mid-May to Mid-June.

### Region 6

1. Robert A. Bauer and John A. Coble, Ensata Gardens,  
9823 E. Michigan Ave., Galesburg, MI 49053 Tel. (616)  
665-7500 Bloom June 25-July 15.
2. Mr. and Mrs. James A. Copeland, 34165 CR 652,  
Mattawan, MI 49071 Tel. (616) 668-2156 Bloom Last wk  
of May-Peak 1st two wks of July.
3. Mrs. Ronald F. Miller, Old Douglas Perennials, 6065  
old Douglas Road, Kalamazoo, MI 49007 Tel. (616)  
349-5934 Bloom June 25-July 17.
4. James W. Shook, 3987 Lincoln Lake Road, Lowell, MI  
49331 Tel. (616) 897-9169 Bloom June 20-August 1.
5. Dr. Harold L. Stahly, 8343 Manchester Drive, Grand  
Blanc, MI 48439 Tel. (313) 694-7139 Peak bl. July 4.
6. Mrs. Robert Stallcop, Rt. 2, Box 676 Greencastle, IN  
46135 Tel. (317) 672-8206 Peak bloom June 10-15.

### Region 7

1. Adolph J. Vogt, 5101 Fegenbush Lane, Louisville, KY  
40218 Tel. (502) 499-0024 Peak bloom Mid June.
2. Dr. and Mrs. Edward T. Browne, Jr., 486 St. Nick  
Drive, Memphis, TN 38117 Peak bloom 1st week in June.



#### Region 8

1. Howard Brookins, N75 W14257 North Point Drive, Menomonee Falls, WI 53051 Tel. (414) 251-5292 Peak bloom 2nd week in July.

#### Region 9

1. Jerry and Melody Wilhoit, Route 1, Box 141, Kansas, IL 61933 Tel. (217) 948-5478 Bloom June 10-30.

#### Region 13

1. Terry and Barbara Aitken, Aitken's Salmon Creek Garden, 608 N.W. 119th Street, Vancouver, WA 98685 Tel. (206) 573-4472 Bloom Month of June-Peak June 15.
2. Mrs. Lorena M. Reid, Laurie's Garden, 41886 McKenzie Hwy., Springfield, OR 97478 Tel. (503) 896-3756 Bloom Last wk of May-1st wk of July.
3. Allan and Dorothy Rogers, Caprice Farm Nursery, 15425 S.W. Pleasant Hill Road, Sherwood, OR 97140 Tel. (503) 625-7241 Bloom June 15-July 5.

#### Region 15

1. Lillian Champion, 12420 Seventh St., Yucaipa, CA 92399 Tel. (714) 797-9381 Bloom May 5-July.

#### Region 18

1. Donald Delmez, 3240 Connecticut St., St. Charles, MO 63301 Tel. (314) 724-4274 Bloom June 1-25.

#### Region 19

1. Presby Memorial Iris Gardens, 474 Upper Mountain Road, Upper Montclair, NJ 07043 Tel. (201) 783-5974 Bloom July.

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#### A BLOOMIN' SUCCESS IN UTAH

The editor would like to call the reader's attention to an article which appeared in the January 1991, Number 280, issue of the Bulletin of the American Iris Society. The article, by F. Paul Magin, III (Utah), was titled "Edge of Frost --- A Bloomin' Wonder," and appears on pages 68 & 69.

This article reports what is probably a record in the number of branches and blooms on any one Japanese iris stalk. It gives growing information and should be especially encouraging to anyone wishing to grow Japanese irises in an area not normally suited to them.

Mr. Magin is to be congratulated upon his cultural success, as well as the hybridizer, Marie Dienstbach, for introducing this fine variety.

1990 JAPANESE IRIS  
REGISTRATIONS AND INTRODUCTIONS

Taken from 1990 AIS Registrations and Introductions  
by  
Howard Brookins

AMETHYST WINGS (William Ackerman, R. 1989) Sdlg A4-10-32 Dip. 3-F (24" 61cm) M. S. violet (RHS 83A), 1/16th inch near white rim; violet (83D) styles; F. near white ground, veined dark violet (83A) around yellow green (154B/C) signal. D4-10-87 x B61969 "Nishike". Nicholls Gardens 1990.

BEIKOKU (Robert D. Fabel-Ward, R 1990) Dip. (37" 94cm) L. S. white; F. light violet, veined white. Yuki-No-Yama x self.

BLUSHING PRINCESS (William Ackerman, R. 1990) Sdlg A4-6-122 Dip. 3-F (33" 84cm) L. S. white with narrow dark purple (RHS 77A/B) margin; white stylearms with pale purple lip; F. white blending to medium purple (77C/D) margin, green-yellow (1B) signal. D5-12-115, inv sdlg from Seiko-en Nursery x D5-12-133.

BROCADE BLUE (William Ackerman, R. 1990) Sdlg A3-10-62 Dip. 6-F (32" 81cm) E. Violet (RHS 93A), near yellow signal, blending to brighter shades of violet-blue near ruffled edge; occasional 4 stylearms. D4-7-128: (D5-11-33, irradiated seed x Double Cream) x self.

CALAMARI (Mrs. Jill Copeland, R. 1990) Sdlg 86-1 Dip. 3-F (36" 91cm) E-M. S. purple-violet (RHS 80A) rimmed white (155B); violet (87D) stylearms; F. white (155B) veined and sanded purple-violet (80A), yellow (5A) signal. Unknown parentage.

CELESTIAL PINK (Currier McEwen, R. 1990) Sdlg 80/168(4) Dip. 3-F (32" 81cm) E-LM. S. soft light pink (lighter than RHS 75D); white styles with pink (69C) tufts; F. light pink (75C) with small central white area around soft yellow signal; ruffled. 76/17(3): (Sakura-Jishi x "Mitsu Sakura") x unknown.

DAMSEL KNIGHT (H. Knight by J. Wood, R. 1990) Sdlg K-101-86 Dip. 6-F (38" 96cm) ML. White ground with 1/2" to 3/4" blue-violet (RHS ??) border; ruffled white styles edged blue-violet. Unknown parentage.

DOWN EAST POSTLUDE (Currier McEwen, R. 1990) Sdlg. T1-76/66B Tet 6-F (32" 81cm) L-VL. Light blue (RHS 97A) lightening to (97C), yellow (8A) signal blending to greenish (150B). Jeweled Sea x Returning Tide.

EDGED DELIGHT (William Ackerman, R. 1990) Sdlg A4-6-123 Dip. 3-F (34" 86cm) M. S. white, 1/8" dark purple (RHS 77A) margin; white stylearms; F. white, ruffled margin, yellow green (150A) signal. D5-12-115, inv. sdlg from Seiko-en Nursery x D5-12-133.

ELECTRIC RAYS (J. Terry Aitken, R. 1990) Sdlg #83J-1-12 Dip. 6-F (40" 102cm) M. S. mid violet; F. same with light blue rays extending from yellow signal to 1/2" from edge; ruffled; excellent parent. Knight in Armour x Reign of Glory. Aitken's Salmon Creek Gdn. 1990.

ENGELTJE (James Copeland, Jr., R. 1990) Sdlg 80-15-1 Dip. 3-F (32" 81cm) M. S. white (RHS 155B) fringed violet (87A); white stylearms; F. white (155B), yellow (9A) signal. Unknown parentage.

FRISCHE BRISE (Uwe Knoepnadel, R. 1990) Dip. 3-F (27" 70cm) L. S. violet; dark blue styles; F. light lavender to white veined blue-violet, yellow signal. Sdlg x unknown. Friesland Staudengarten 1990.

FUJI'S SNOWCAP (George Bush, R. 1989) Sdlg. 84-84 Dip. 6-F (34" 86cm) M. S. white; white stylearms; F. lavender-blue, white center, yellow signal. Inv. sdlgs. George Bush 1990.

HINT OF YELLOW (Currier McEwen, R. 1990) Sdlg. 85/95C Dip. 6-F (36" 91cm) M-L. F. creamy white with light yellow (RHS 12A) veins at inner half, yellow (12A) signal; light yellow styles. White Parachute x Continuing Pleasure.

HUSKY HERO (William Ackerman, R. 1990) Sdlg A3-5-90 Dip. (46" 117 cm) M-L. S. violet (RHS 83A); large violet stylearms; F. violet (83A) veined darker, yellow (7A) signal. "Yamataikoku" x D5-6, double cream inv. sdlgs. from Seiko-en Nursery.

IMPERIAL KIMONO (George C. Bush, R. 1986) Sdlg VW84-11 Dip. 6-F (38" 97cm) ML. Blended blue and orchid with a few faint white rays in center of F.; orange signal, white stylearms edged blue. From sdlgs. George Bush 1990.

JEVER DOPPELDECKER (Uwe Knoepnadel, R. 1990) Dip. 6-F (39" 100cm) M. White, yellow signal. I. ensata sdlg. x I. ensata sdlg. Friesland Staudengarten 1990.

JOY PETERS (William Ackerman, R. 1988) Sdlg A4-5-44 Dip. (34" 86cm) M. S. lavender-pink (RHS 69B); near white stylearms with pale purple (76B) margins and lips; F. ruffled lavender-pink (69B) at edge blending to pale purple (76B) near yellow-green (154A) signal. 84(14-91); (Double Cream x B62691, "Gosho-No-Asobi" x B62698, "Miyoshino". changed "Gosho-asobi" as originally registered. Ackerman 1990.

LET ME SEE (William Ackerman, R. 1989) Sdlg A4-3-69 Dip. 6-F (40" 102cm) M-L. violet-blue (RHS 89D), veined darker (89B) around green-yellow (1A) signal; dark violet (86A/B) styles. Warai-Hotei x "Jakagononami". Nicholls Gardens 1990.

LITTLE SNOWBALL (Adolph Vogt, R. 1985) Sdlg Z-2981 Dip. 6-F (22" 56cm) L. Ruffled white, yellow-green (RHS 153B) signal; white styles with light yellow tint. Little Snowman x Ivory Glow. Ensata Gardens 1990.

LITTLE SNOWMAN (Adolph Vogt, R. 1981) Sdlg B-1468 Dip. 6-F (24" 61cm) M. White with light yellow-green veining; yellow-green (RHS 153A) signal. Garden Caprice x Ivory Glow. Tranquil Lake Nursery 1990.



MIDSUMMER HAPPINESS (Currier McEwen, R. 1990) Sdlg 85/95F Dip. 6-F (39" 98cm) M-L. Blue (RHS 95C/D) with clean white lines extending to edge, rich yellow signal; ruffled; tufted stylearms and stamen petaloids. 7" flower, one branch, 3 buds. White Parachute x Continuing Pleasure. Seaway Gardens 1991.

ORIENTAL BOUQUET (William Ackerman, R. 1990) Sdlg A3-10-111 Dip. 10-F (22" 65cm) M-L. Very pale violet-blue (RHS 91D) ground, veined very dark violet-blue (89A), heavier around green-yellow (1A) signal; 8 stylearms veined violet-blue (90A); 6 petaloids. D4-10-86, inv. sdlg. from Seiko-en Nursery x self.

PINK CANOPY (George Bush, R. 1989) Sdlg 86-40 Dip. 6-F (36" 91cm) ML. Orchid-pink, lime yellow signal; orchid styles. Inv. sdlg. George Bush 1990.

PINK LIPS (George Bush, R. 1989) Sdlg 89-29 Dip. 3-F (18" 46cm) M. S. pink; pink stylearms; F. cream veined orchid-pink, yellow signal. Inv. sdlg. George Bush 1990.

PINK MYSTERY (Currier McEwen for Marx, R. 1988) Tet. 6-F (35" 88cm) M. Pink (RHS 75B), Greenish-yellow signal; white styles tipped pink (75B). Unknown parentage, but probably Mata Hari x "Karahashi". Lauries Gdn., Seaways Gdns. 1990

ROYAL ONE (William Ackerman, R. 1989) Sdlg A6-3 Dip. (43" 110 cm) M. S. pale lavender (RHS 76C); F. pale lavender (76B/C), veined darker (77A), yellow green (153B/154A) signal. A4-3-104, sdlg. from Seiko-en Nursery of Japan x "Gosho-No-Asobi". Nicholls Gardens 1990.

SAKAKO (Elaine Hulbert, R. 1990) Sdlg 83KJ3 Dip. 6-F (36" 91cm) ML. White, white rays running into wide pink border, yellowish-green signal; white stylearms and crests edged pink. Sakura-Jishi x self. Cooper's Garden 1990.

SHUICHI HIRAO (S. Hirao by S. For J.I., Reg. 1990) Sdlg SH-30 Dip. 3-F (35" 89cm) M. White, yellow signal veined green; cream stylearms tipped white. Unknown parentage.

SNOWY TRIO (George Bush, R. 1983) Sdlg. 78-1J Dip. 3-F (38" 97cm) ML. Pure white, small lime signal. Unknown parentage. George Bush 1990.

SOROCCO (Dr. Don Spoon, R. 1989) Sdlg. A-3 Dip. 6-F (32" 81cm) M. White petaloids tipped lavender-blue; stlearms same; F. flaring and ruffled lavender-blue (RHS 91 A/B) lightening at yellow signal, white halo and rays (flower ages to silver blue). Unknown parentage. Nicholls Gardens 1990.

SOUTHERN SON (Currier McEwen, R. 1989) Sdlg 85/88B Dip. 6-F (36" 91cm) M-L. Close to true medium blue (RHS 93B), gold signal. 80/165: (77/65(1): ((Garden Caprice x self) x Frostbound) x unknown) x unknown) x Continuing Pleasure. Seaways Gdns., Pope's Per. 1990.

SPARKLING SAPPHIRE (Adolph Vogt, R. 1985) Sdlg Z-1680 Dip. 6-F (27" 69cm) L. Dark violet-blue (RHS 89A), yellow (14A) signal; violet-blue styles, lighter in center. Blue Nocturne x Oriental Eyes. Ensata Gardens 1990.



STATELY FLAMINGO (Adolph Vogt, R. 1987) Sdlg A2269 Dip. 3-F (48" 122cm) ML. S. violet (RHS 83B), light midrib; styles lightly sanded violet, color intensifies on edge and tip; F. grey, sanded purple-violet (80B), color intensifies on edge, light yellow signal. Oriental Tracery x Powder and Paint. Ensata Gardens 1990.

STURMVOGEL (Uwe Knoepnadel, R. 1990) Dip. (47" 120cm) EM. White, yellow signal. Sdlg. x unknown. Friesland Staudengarten 1990.

SYLVIA'S MAZQUERADE (Sylvia Eddy by A. Miller, R. 1988) Sdlg 5-81-1 Dip. 6-F E-L. S. light orchid-pink, darker around yellow hafts, blue haze around eye; F. light orchid pink, veined darker, darker halo and bluish cast around yellow eye; white stylearms tipped light orchid. Unknown parentage. Old Douglas Perennials 1990.

TAFFETA AND VELVET (William Ackerman, R. 1984) Sdlg D4(7-91) Dip. 3-F (36" 91cm) VE & RE. Heavily ruffled dark purple (RHS 77A), velvety F., yellow (12A) signal. D5(11-19) x D5(9-144). Nicholls Gardens 1990.

TEA CEREMONY (George Bush, R. 1986) Sdlg PW84-9 Dip. 3-F (36" 91cm) EM. S. white, narrowly edged rose-pink; white stylearms tipped rose-pink; F. brilliant rose-pink, snow white center, few white lines near edge, golden yellow signal. From sdls. Bush 1990.

WILDERNESS CRINOLINE (John Wood, R. 1990) Dip. 6-F (35" 89cm) ML. White ground infused pink and blue, giving a mother-of-pearl iridescence, gold signal; white styles. Icy Peaks x unknown.

WILDERNESS DEBUTANTE (John Wood, R. 1990) Sdlg W-102-82 Dip. 6-F (35" 89cm) M. Crimped and lightly ruffled pink (RHS 73B), gold signal; white styles tipped pink. Enchanting Melody x unknown.

WILDERNESS INTRIGUE (John Wood, R. 1990) Dip. 6-F (30" 76cm) ML. White ground, violet blue (RHS 89C) veining on border, yellow (5A) signal; red purple (72A) petaloids veined lighter on border; violet-blue (89A) styles. Ike-No-Sazanami x Prairie Velvet.

ERRATA  
for  
STUDIES ON THE BREEDING OF JAPANESE GARDEN IRIS.  
*Iris ensata* Thunb.

1. INTERSPECIFIC-CROSS BREEDING

When publishing a major article it seems that some errors always occur. The editor is still trying for that "perfect printing". In Dr. Yabuya's article of the above title, published in the last issue, the following corrections should be noted.

- p. 43 First line: for max read  $\lambda_{\text{max}}$ . (Note, the editor actually left the space for the symbol since the typewriter does not have the capability of producing it), but forgot to go back and write it in.
- p. 44 Fig. 1, Under footnote 1: for  $^1$ in HPL analysis, read  $^1$ in HPLC analysis.
- p. 48 down 31 spaces, or in the 27th line of type: a noticeable number being 2n=52 should read, a noticeable number being 2n=51 and 2n=52.
- p. 48 down 33 spaces, or in the 29th line of type: for (2n=48) read (2n=47)
- p. 49 Table 3: for Amphidiploids x I. ensata(4X), under the column normal, 005 should read 0.  
: for "Raspberry Rimmed (2n=48)" read "Raspberry Rimmed(2n=47)".
- p. 51. Table 4: for  $^1$ "Kacho(2n=24)". read  $^1$ "Raspberry Rimmed(2n=47)".

STUDIES OF THE BREEDING OF JAPANESE GARDEN IRIS,  
*Iris ensata* Thunb..

2. CYTOGENETICS OF ANEUPLOIDS

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**Introduction.**

In the previous article (Yabuya 1990), interspecific cross-breeding was discussed as the first of the three subjects of the lecture entitled "Studies on the breeding of Japanese garden iris, *Iris ensata* Thunb." at the 1990 CONVENTION OF THE SOCIETY FOR JAPANESE IRISES. The present article is concerned with the second subject which is cytogenetics of aneuploids of Japanese garden iris, and this subject is subdivided into two parts. One is elucidation of the origin and development of aneuploid varieties. The other is production of aneuploid lines, especially trisomic ones.

## Elucidation of the origin and development of aneuploid varieties.

Tomino (1963) reported that aneuploid varieties ( $2n=25$ ) which he had first discovered in the varieties of Ise line, had an extra chromosome and irregular meiosis in comparison with eu-diploid varieties ( $2n=24$ ) and exhibited an attractive flower type. Consequently, the aneuploid varieties have been cytogenetically studied to contribute to the promotion of breeding of the plants and to the elucidation of their origin.

In the first place, karyotypes of aneuploid varieties, "Ochibagoromo", "Matsusakatsukasa" and "Isenohomare", were analyzed and compared with those of eu-diploid varieties, "Shishinden", "Kacho" and "Asahimaru" (Yabuya *et al.* 1987, 1989). Yabuya *et al.* (1987, 1989) found that there was a striking difference between the chromosome complements of the eu-diploid and aneuploid varieties, i.e. 12 pairs of chromosomes for the former and 11 pairs and 3 single chromosomes for the latter. This implies that the chromosome complement of the aneuploid varieties is not simple trisomic such as primary trisomics ( $2n+1$ ). Additionally, the karyotypic analysis indicated that the morphology of the 3 single chromosomes in the aneuploid varieties had similarity with one another and with a pair of the second longest m chromosomes in each eu-diploid variety (Yabuya *et al.* 1987, 1989). The detail for the karyotype analysis of the aneuploid and eu-diploid varieties is given by Yabuya *et al.* (1989).

Table 1 shows chromosome association at MI of PMC's in eu-diploid varieties, "Shishinden", "Kacho" and "Asahimaru", aneuploid varieties, "Ochibagoromo" and "Isenohomare" and their F1 hybrids ("Shishinden" x "Ochibagoromo"). In the eu-diploid varieties, normal association (12II) was present in 96.3% for "Shishinden", 95.9% for "Kacho" and 96.9% for "Asahimaru" and the mean chromosome association per cell was  $0.056I + 11.949II + 0.009III + 0.005IV$  for "Shishinden",  $0.082I + 11.959II$  for "Kacho" and  $0.062I + 11.969II$  for "Asahimaru", respectively (Table 1). This indicates that 12 pairs of chromosomes of these varieties, shown in the karyotypic analysis, have full homology. On the other hand, aneuploid varieties, "Isenohomare" and "Ochibagoromo" showed a wide variation of chromosome association and their mean chromosome association per cell was  $0.789I + 11.556II + 0.366III$  for "Isenohomare" and  $4.615I + 10.067II + 0.077III + 0.005IV$  for "Ochibagoromo", respectively (Table 1). In the types of chromosome association observed, it was noticed in both varieties that chromosome association such as 11II and 12II accounted for 98.7% and 47.6% for "Isenohomare" and "Ochibagoromo" in their PMC's: 57.3% for 12II + 1I, 35.8% for 11II + 1III and 5.6% for 11II + 3I in the former variety; 24.5% for 12II + 1I, 3.4% for 11II + 1III and 19.7% for 11II + 3I in the latter variety. This is consistent with the somatic chromosome complement of "Isenohomare" and "Ochibagoromo", i.e. 11 pairs and 3 single chromosomes, and clearly indicates that these singles exhibit partial homology among them, i.e. a partial trisomy. In addition, such homology in "Isenohomare" is much higher than that in "Ochibagoromo" as shown in Table 1.



**Table 1.** Chromosome association at MI of PMC's in eu-diploid varieties, aneuploid varieties and their  $F_1$  hybrids of Iris ensata.

Varieties and $F_1$ hybrids	Chromosome association at MI				No. of cells	Frequency (%)
	I	II	III	IV		
"Shishinden"		12			207	96.3
	2	11			6	2.8
		10		1	1	0.5
		9	2		1	0.5
"Kacho"		12			164	95.9
	2	11			7	4.1
"Asahimaru"		12			188	96.9
	2	11			6	3.1
"Isenohomare"	1	12			133	57.3
		11	1		83	35.8
	3	11			13	5.6
	2	10	1		2	0.9
	7	9			1	0.4
"Ochibagoromo"	1	12			51	24.5
		11	1		7	3.4
	3	11			41	19.7
	2	10	1		6	2.9
	5	10			31	14.9
	3	9		1	1	0.5
	4	9	1		1	0.5
	7	9			33	15.9
	6	8	1		2	1.0
	9	8			18	8.7
	11	7			10	4.8
	13	6			4	1.9
	15	5			3	1.4
("Shishinden" x "Ochibagoromo") $F_1$ -1		12			209	93.3
	2	11			15	6.7
	-2	12			31	88.6
	2	11			3	8.6
	4	10			1	2.9

I=univalent, II=bivalent, III=trivalent, IV=quadrivalent.



In F1 hybrids ("Shishinden" x "Ochibagoromo",  $2n=24$ ), normal association (12II) was observed in 93.3% for F1-1 and 88.6% for F1-2 and the mean chromosome association per cell was  $0.134I + 11.933II$  for the former and  $0.286I + 11.857II$  for the latter (Table 1). This indicates that there is a full homology between one of the 3 single chromosomes of "Ochibagoromo" and one chromosome pair of 12 paired chromosomes of "Shishinden". From this result and the karyotypic analysis mentioned above, "Ochibagoromo" seems to be partial trisomic for a pair of the second longest m chromosomes of the eu-diploid varieties. Also, "Isenohomare" and "Matsusakatsukasa" are expected to be partial trisomics like "Ochibagoromo", because the former varieties showed the same type of chromosome complement as the latter variety, i.e. 11 pairs and 3 single chromosomes, and the singels of these varieties resembled each other in their morphology.

As reported by Tomino (1963), aneuploid varieties exhibit an excellent flower type, but its mechanism has not been studied. From the above discussion, however, such a useful character in the aneuploid varieties seems to be caused by the trisomy for a pair of the second longest m chromosomes of eu-diploid varieties.

There were 22 aneuploid varieties in Ise line of Japanese garden iris (Tomino 1963), and the reciprocal crosses between an aneuploid variety, "Ochibagoromo" and an eu-diploid one, "Shishinden" brought aneuploid hybrids ( $2n=25$ ) as shown in Table 2. Consequently, this implies that the aneuploidy is transmissible. The data mentioned above support the speculation for the development of aneuploid varieties in Japanese garden iris proposed by Yabuya *et al.* (1989) as follows: The breeders had selected for partial trisomic plants of a pair of the second longest m chromosomes with an attractive flower type among trisomics derived from certain eu-diploid varieties possessing the structural differentiation of chromosomes, and have bred various aneuploid varieties through intervarietal crosses between selected trisomics and other varieties.

Table 2. Somatic chromosome number of F<sub>1</sub> lines between eu-diploid "Shishinden" and aneuploid "Ochibagoromo" variety in Iris ensata

F <sub>1</sub> lines	No. of plants	Somatic chromosome numbers	
		$2n=24(\%)$	$2n=25(\%)$
"Shishinden" x "Ochibagoromo"	41	40(97.6)	1(2.4)
"Ochibagoromo" x "Shishinden"	11	10(90.9)	1(9.1)

Finally, to substantiate the speculation, the structural differentiation of chromosomes should be first clarified in aneuploid and eu-diploid varieties by means of the chromosome banding method.

### Production of aneuploid lines, especially trisomic ones.

From the above results, the trisomic for a pair of the second longest m chromosomes should be produced to promote the breeding of flower type in Japanese garden iris. Also, the production of the trisomic is necessary for the proof that the above speculation is right. Moreover, trisomics have been useful in studying the genetics of ornamental species such as snapdragon (Sampson et al. 1961), stock (Matsuoka 1973), petunia (Maizonnier 1976, cited from Maizonnier 1984) and so on.

Triploids are an important source to obtain primary trisomic series of plant species. In the reciprocal crosses between diploid (2X) x tetraploid varieties of Japanese garden iris, Sushida et al. (1989) obtained two eu-triploid ( $2n=36$ ), one hypo-triploid ( $2n=35$ ) and two telocentric ( $2n=23+t$ ) plants from the cross of 2X x 4X. Table 3 shows somatic chromosome numbers of the plants obtained from the reciprocal crosses between triploids and a diploid variety "Shishinden". Obviously the table indicates that triploids are a good source for the production of trisomics ( $2n=25$  and  $2n=24+t$ ). Moreover, one monosomic plant ( $2n=23$ ) was produced from the cross of 2X "Shishinden" x 3X (Table 3). Sushida (unpublished) identified that one of the trisomics obtained was not a primary trisomic for a pair of the second longest m chromosomes but for a pair of the first longest st chromosomes. However, this suggests that the critical trisomic also can be obtained from the reciprocal crosses between 2X and 3X.

**Table 3.** Somatic chromosome numbers in hybrid plants obtained from the reciprocal crosses between a diploid variety "Shishinden" and triploids of Iris ensata

Cross	No. of plants examined	Somatic chromosome numbers							
		2n=23	2n=24	2n=24+t <sup>1</sup>	2n=25	2n=26	2n=27	2n=28	2n=31
"Shishinden" x Triploids <sup>2</sup>	8	1	3	1	2	1			
Triploids x "Shishinden"	9		1		2	2	1	2	1

<sup>1</sup>Telosome. <sup>2</sup>Triploid plants ( $2n=36$ ) were obtained from the cross of a diploid variety "Shishinden" x an autotetraploid variety "Raspberry Rimmed" of Iris ensata.

In addition to the trisomic for a pair of the second longest m chromosomes, the production of other primary trisomics, i.e. the complete series of trisomics in Japanese garden iris is the key to become a genetically well-known species. It must be emphasized that the breeding of this species, as well as other ornamental ones, can never be successful without a deep basic knowledge.

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DISCUSSION OF DR. YABUYA'S ARTICLE ON THE CYTOGENETICS OF  
ANEUPLOIDS OF JAPANESE IRIS, IRIS ENSATA

William L. Ackerman

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In this issue of the Review, Dr. Yabuya presents the second of his series of research articles on the Japanese Garden Iris I. ensata Thunb. The subject matter this time is on the Cytogenetics of Aneuploids. Here again, the special vocabulary used may not be completely understandable to those outside the profession. Thus, our Editor, Lee Welsh, has asked me to attempt an explanation of what this all means in more common terms. However, the study of aneuploidy can become extremely complex, so please forgive me if my efforts fall short of providing satisfaction.

As Dr. Yabuya states, the paper is divided into two sections: (1) elucidation of the origin and development of aneuploid varieties, and (2) the production of aneuploid lines, especially trisomic ones. Of these, the first section takes up the major portion of the paper.

Before discussing the paper itself and the significance of developing aneuploids and their study, let us define some of the terms used. For this, a glossary of genetic and cytogenetic terms will be helpful.

Aneuploid - cells with one, two, or a few more whole chromosomes more or less, than the basic number for the species in question. Thus, aneuploids may be formed where there is either extra chromosomes beyond the normal chromosome sets, or a loss of one or more chromosomes from the normal sets. This usually happens during cell division where a mistake is made resulting in unequal distribution of chromosomes to the daughter cells.

Euploid - cells with one (or more) complete sets of chromosomes characteristic of the species. Each chromosome is represented once in each chromosome set. This is what we normally expect to find in most plants. The importance here is that there are NO odd chromosomes that break up the complete sets. Thus, in I. ensata we normally have 2 complete sets of 12 chromosomes to make a diploid ( $2n=24$ ). Other plants might have 3 sets (triploid), 4 sets (tetraploid), etc.

Genome - the basic set of chromosomes in an individual. Its ploidy is based on the number of such sets (diploid = 2, tetraploid = 4, etc).

Karyotype - basically the morphological study of the chromosomes. A diagrammatical illustration of the features of individual chromosomes which distinguishes them one from another.

Meiosis - two successive cell divisions of the reproductive system in the production of egg and pollen cells (with  $\frac{1}{2}$  the number of chromosomes of body cell).

Monosomics - when there is the loss of a single chromosome ( $2n-1$ ). Aneuploids with lost chromosomes are rather rare because they frequently do not survive.

PMC - symbol for pollen mother cells which give rise to pollen cells (grains).

Telosome - (symbol  $t$ ) a chromosome whose point of attachment is telocentric (at the end of the chromosome).

Trisomics - a specific type of aneuploid where there is one extra chromosome above the normal two sets in a diploid ( $2n+1$ ).

Aneuploids, especially in diploids, such as I. ensata are of importance for several reasons: (1) they present extra genetic material that can result in new expressions or intensities for existing characteristics, or completely new characteristics, through gene interaction; (2) more important to the geneticist, they provide a unique way for the study of specific genetic characters. and identify which chromosome they are located on. After the specific chromosome has been identified (which is the extra one), as in trisomics ( $2n+1$ ), or lost as in monosomics ( $2n-1$ ), then a study of the plant's physical characteristics altered by this change will identify the location of the genes affected.

The cytogeneticist's dream would be to have a series of aneuploids, one representing the addition or loss of each chromosome in the plant's genome (sets of chromosomes). In I. ensata this would involve a minimum of 12 aneuploids. This would make possible the mapping of genes on their specific chromosome locations.

Now, to get down to Dr. Yabuya's paper. It begins with the study of the karyotypes of three aneuploid ( $2n+1$ ) varieties and compares these with karyotypes of three euploid varieties ( $2n$ ). It would appear that it was the second longest chromosome in the normal euploids that was present in three rather than two representatives.

1. During cell division (meiosis) in the PMC's, the chromosomes line up along a central plate where like chromosomes match up with their partners (in diploids). If a chromosome does not have a partner, it is called a univalent, if it has a partner, it is a bivalent. If, however, there are three of a kind, they form a trivalent, four of a kind produce a quadrivalent.

In Table I the numbers and frequencies of the chromosome associations are given for three groups of varieties, 3 euploids, 2 aneuploids, and 2 hybrids. Here, the important point to look at is the frequency. Nature is rarely perfect - that is why we have change and evolution. Thus, among the 3 euploids ( $2n$ ), normal cell division should result in 12 bivalents. This is true for 96.3% of divisions observed for 'Shishinden,' 95.9% for 'Kacho,' and 96.9% for 'Asahimaru.' However, it is the 'odd balls' that are interesting, for here there are chromosomes that do not match in varying degrees. This likely was the result of some out-breeding in the past



with another species or a widely divergent individual within the species. it is from this kind of abnormal chromosome association that aneuploids are produced.

The interesting thing about the two aneuploids is that, although they are both trisomes, they are quite different cytologically. 'Isenohomare' is much the simpler of the two. It would appear that the extra chromosome is not unlike one of those in the normal set and in the majority of cases (57.3% and 35.8%) it either goes off by itself or joins a normal pair to form a trivalent. Dr. Yabuya indicates that the trisome occurs on the second longest m chromosome of the eudiploid variety. 'Ochibagoromo' shows a much more complicated chromosome association indicating that there is greater divergency between the extra chromosome and others, as well as between the supposedly normal pairs themselves.

The two  $F_1$  hybrids between 'Shishinden' x 'Ochibagoromo' are themselves euploids and the influence of the trisome has been largely lost. In the first hybrid, there is 93.3% perfectly normal chromosome association (probably not significantly different from 'Shishinden' itself). Likewise, the second  $F_1$  hybrid, although showing a lot more variability (possibly because the odd [extra] chromosome from 'Ochibagoromo' displaced one from 'Shishinden') is not unusual for the variability within euploids.

Table 2 shows a rather striking difference in the production of aneuploids from the reciprocal crosses between 'Shishinden' and 'Ochibagoromo'. If these figures were to hold up under larger numbers of crosses, it would be prudent to use the aneuploid ('Ochibagoromo') as the female parent in future crosses.

Lastly, to further clarify which chromosomes are in the trisomic condition (where the extra chromosomes come from), the more specific identification of the chromosomes involved would be highly desirable and this may be accomplished through the relatively new cytological technique utilizing chromosome banding.

## 2. Production of aneuploid lines, especially trisomic ones.

The fact that aneuploidy is transmissible and the trisomic condition for the 2nd longest chromosomes results in superior flowers opens up a whole new range of breeding possibilities for creating improved cultivars. By using this technique, the plant breeder has the potential of combining the trisomy phenomena with a broad spectrum of germ plasm from within the many euploid varieties.

Dr. Yabuya goes on to explain the importance of triploids in producing a whole series of aneuploids at higher chromosome values. In Table 3, a broad range of aneuploids from  $2n-1$  through  $2n+7$  are shown. The news that Sushida (unpublished) identified a trisomic involving the 1st longest st chromosome, is especially interesting. It indicates that the trisomic phenomena is not limited to the 2nd longest m chromosome. Hopefully, future research will reveal other chromosomes in the Japanese Iris genome that are involved. This will all help fill out the complete picture of the genetic makeup of the species.



## MY PINK ENSATA

Dr. Currier McEwen

I write this article to correct any misinformation I may have caused regarding the pink Iris ensata which came from seeds I had received in 1984 from Joan Trevithick. In that year I had joined the British Siberian, Spuria and Japanese Group of which Joan Trevithick was (and is) treasurer and editor of the news Letter. In accordance with her practice, she kindly sent me, as a new member, some seeds from her pool garden in Radcliff-on-Trent in Nottingham. She sent two packets of seeds which I understood had all come from her plants of the wild, red I. ensata species and so planted them together. Twelve plants resulted, eleven typical examples of the wild red species with similar flowers though differing strikingly in height (from 24 to 60 inches) and the twelfth was a charming pink. I was not only enchanted by the lovely color but was excited that it apparently had come as a sport from the usual red ensatas. I was particularly interested in it as a possible example of what might have been the origin of ROSE QUEEN, that lovely pink Japanese iris that has been around for so many years, but whose origin still remains a mystery\*. I therefore took it as an I. ensata sport to the annual Beardless Auction in Concord, Massachusetts where it created a furor of interest and bidding.

Subsequently, I have learned from Joan Trevithick that the two packets of seeds she had sent me were different, one containing seeds from the typical red species ensata and the other seeds from a pink Iris ensata growing in the same small pool. That plant had come from seeds she had obtained from the British Iris Society's seed distribution program through Sidney Linnegar, who said they had come from New Zealand as seeds of ROSE QUEEN. My own first plant of ROSE QUEEN had come to me in 1970 from New Zealand. Since then I have had two others: one from Clarence Mahan and the other from Eberhard Schuster in Germany. Those two and the earlier one from New Zealand are clearly the same cultivar but my pink ensata is different - about the same small size but perhaps closer to true pink and of different form. I am so fond of it that it will be registered and introduced. Joan Trevithick has kindly said I may name it after her.

To return to the point I must make regarding this charming flower, it is not a sport from the wild red I. ensata as I once supposed but, is a seedling derived from ROSE QUEEN.

\* Clarence Mahan has recently registered ROSE QUEEN for the Society for Japanese Irises.

## HAZZARD MEMORIAL GARDEN DEDICATED

Compiled from articles in "The Compass",  
(the local newspaper) and  
ROOTS, Journal of the Historic Iris Preservation Society,  
Fall '90, Vol. 3, Issue 2.

The Hazzard Memorial Garden was dedicated on October 6, 1990. This garden is an area of about 1,000 square feet within the Japanese garden in the Norfolk Botanical Gardens, Norfolk, Virginia. It is dedicated as a permanent memorial to the late Arthur Hazzard, of Kalamazoo, Michigan, hybridizer of Japanese irises and a founding member of The Society for Japanese Irises. It is hoped to obtain most, if not all, of Mr. Hazzard's 88 introductions for planting in this garden.

The planting is sponsored by the Tidewater Iris Society. The Tidewater Society will be hosting the 1993 Convention of SJI, at which time the garden will be featured. At this time, about 30 of Mr. Hazzard's varieties have been obtained. If you have any Hazzard varieties which you would consider donating to this garden, communication from you would be appreciated. Contact:

Rich Randall  
524 Windsor Gate Road,  
Virginia Beach, VA 23452  
Tel. (804)340-9077

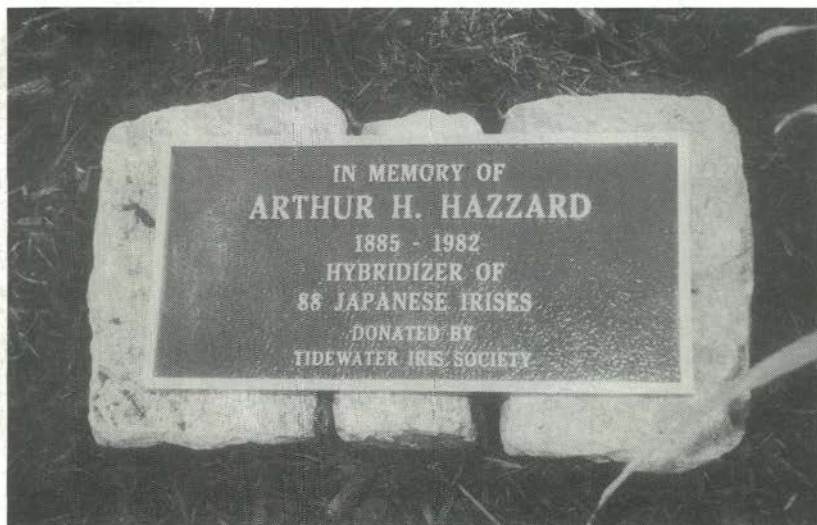
The dedication was an intimate affair of about 30 people. Ground was broken by Freda Hazzard, Mr. Hazzard's widow, who now lives in Williamsburg, VA, and Peter Frederick, Superintendant of the Norfolk Botanical Gardens. Opening remarks were given by Clarence Mahan, then President of SJI. A plaque was unveiled by Freda Hazzard which was donated by the Tidewater Iris Society in cooperation with Seaboard Memorial Specialists Inc.

In addition to the Hazzard Garden, the Tidewater Society is working with the botanical garden's staff to plant beds of other types of irises, and other varieties of Japanese irises. These beds will be on display during the 1993 SJI Convention.



Peter Frederick,  
Norfolk Botanical  
Gardens superintendent,  
and Freda Hazzard  
break ground at  
the new Hazzard  
Memorial Garden.

Photos by Mike Lowe





## PROS AND CONS OF TETRAPLOIDY IN JAPANESE AND SIBERIAN IRISES

Dr. Currier McEwen

Interest in tetraploid Japanese and Siberian irises has reached the point where I think an article like this one may be timely for hybridizers who may wish to try their hands at the use of colchicine, or who may plan to start crossing existing tetraploids.

This is not the place to discuss in any detail the methods for using colchicine. The two that I have had experience with are presented in detail elsewhere (1,2). The "sprouted seedling" method is, I believe, correct as described in those articles, but I must express caution about the "clonal" method. The technique described in those articles was one that I had used successfully many years ago with daylilies but I had never used it with Japanese or Siberian irises until the spring of 1990. Clearly it was effective, for typical tetraploid new growth started in a few days. Unfortunately, however, after some weeks, that new growth died. I suspect that the colchicine solution of 0.5% advised in the articles is too strong for Japanese and Siberian irises and would recommend that anyone planning to use the clonal method with them experiment with weaker solutions. This experience I must confess is a good example of the mistake of assuming that what works with one plant will also work with another.

Turning to the general question of advantages and disadvantages of tetraploid breeding, I will consider first the advantages. An obvious one is the more striking appearance of the plants and the flowers. The plant is more stalwart with somewhat wider leaves of a richer green color. The flowers tend to be richer in color also, are larger and have stronger substances than their diploid sisters. Also, in flowers with special features such as ruffling, round form, and wide tufted style arms, those features tend to be increased in the tetraploids.

a second advantage stems from the fact that the doubled number of genes in the tetraploids provides greater opportunity for new gene combinations and hence, especially in the case of dominant characteristics, a greater chance for the appearance of enhanced or new features. Of course, these can be undesirable features but, just as in the case of diploids, if one selects plants known to be good parents, one can have every expectation of having good results.

My third argument in favor of hybridizing with tetraploids is similar to the second, and applies especially to Japanese irises. With some 500 years of experience with diploids one may expect that much of the potential of diploid breeding has been achieved. The appearance of tetraploids on the scene has opened a new challenge.

A fourth advantage to the hybridizer of the use of tetraploids is the greater ease of making crosses due to the larger size of anthers and stigmas. This is, of course, a minor matter but does add to the convenience.

Finally, there can be no question about the importance of the fifth on my list of advantages, namely, the role of tetraploidy in producing fertile interspecific hybrids. The lovely but sterile diploid Cal-Sibes, for example, were a dead end for the breeder until Tomas Tamberg developed his fertile tetraploids (3,4). Similarly, the success of yabuya (5) and of Kamo and Ichie (6) in doubling the chromosomes of the sterile I. pseudacorus x I. ensata hybrids has made possible the introduction of new colors and other features in Japanese irises.

Turning to the shortcomings of tetraploidy, the first I will mention is the same as the first in my list of advantages, namely the larger, more flaring flowers, with a corresponding loss of some of the grace of the diploids. Certainly the tetraploid petals are not apt to "flutter in a breeze" as has been so often said of the older diploid Siberian irises but, in fact, that has not been very apparent in the diploids either since the advent of White Swirl.

A very practical disadvantage for the hybridizer is the much smaller number of seeds obtained through crosses of tetraploids. The percentage of pods set is about the same with tetraploid Siberian and Japanese irises as with diploids. However, the individual diploid pods contain 30 to 70 or more viable seeds, whereas those of early generation tetraploids contain only 1 to 5 good seeds. In the more advanced generations, this has been partly overcome. Here at Seaways Gardens our Siberians have now, in 1991, reached the 12th generation of tetraploidy. Up to those of the 7th generation, the number of useful seeds has remained small but from the 7th generation on some pods have contained up to 30 seeds; still fewer than the diploid pods but satisfactory, and the number will increase, I think, as the generations of tetraploidy advance. In our Japanese irises of advanced generations (they have now reached the 9th), the number of viable seeds is increasing also with several pods of the 1990 harvest containing 15 to 20 seeds.

In conclusion, I would emphasize the desirability of using both diploids and tetraploids in one's hybridizing program. It would be sad indeed if hybridizing of the beardless irises should become overwhelmingly devoted to the tetraploids. Certainly, the larger, more richly colored tetraploids stand out well in the garden but so too do the graceful and more dainty diploids. This is impressed on me each year as I appreciate the lovely, contrasting effects of the diploids and the tetraploids growing side by side in our display beds.

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## COLLECTED NOTES

John Coble, SJI Historian

As SJI members have read in the past two REVIEWS, this past year the SJI library has received the letters, papers, and slides pertaining to SJI from the estates of the late Eleanor Westmeyer and Art hazzard. We continue to express our sincere appreciation for these donations. All of the material has not yet been read through, but I thought I'd bring to your attention some of the notes I've found. Some things have not changed much in 30 years.

In Eleanor's files was found a page meant for the 1965 REVIEW that did not get printed. It dealt with the future goals of hybridizing Japanese iris. After some comments on substance (of bloom) and branching, the article went on with:

"C.A.Swearingen, President of the Society for Japanese Irises, has reported discovering a slight fragrance in some of his seedlings and hopes to develop this characteristic. In Germany, Max Steiger, has developed a lime-tolerant strain of Japanese irises. Miniatures are also being sought and will surely be in demand for flower arrangements as well as garden use. Three small ones have been introduced recently by W. A. Payne. GAY FIREFLY is an intriguing midget with jaunty single flowers of a light shade, prominently veined with dark violet. IMPERIAL IMP has a four inch bloom with ruffled and curled petals heavily and uniformly veined, and sanded spectrum violet. In NIPPON MISS, the double flowers of ivory white, delicately stippled violet are only 3½ inches across."



Mr. Swearengen noted in later REVIEWS that his two seedlings that attracted butterflies were poor growers and that selfing these two plants gave seedlings without any increase in noticeable fragrance. In a 1965 robin letter from Art Hazzard's file was a report by Mr. Swearengen that Mr. Payne's miniatures were poor increasers and that Mr. Payne had since considered them "runts" of the litter. These three miniatures are now extinct. Aren't they? I would really appreciate hearing from anyone that ever grew them and your observations.

The other reason that made me dig through these four boxes of letters and files was to seek out any comments on Japanese iris varieties imported from Japan. Bob Bauer and I are working with Howard Brookins to update a new JI Checklist for SJI. We are in hopes of trying to clarify the identification (and correct spelling) of JI imported from Japan over the past 50 years or so. The letters from Dr. Hirao to Eleanor are interesting. They (Eleanor and Bee Warburton) were having the same problem in the early 1960's. Eleanor had sent some names of older JI she had acquired here in the U.S. to Dr. Hirao. He wrote back and corrected a couple of spellings (and gave correct descriptions as grown in Japan) and a couple he said were words that made no sense. He went on to say in a letter in the fall of 1962:

"I think, many years back being requested to export Higos to your country, some of our exporters with unfortunately little knowledge about Japanese iris shipped plants to your country. Because of the shortage of the stock the shippers may have collected their consignments from various sources, and in the meantime many unvaluable seedlings of Higo parentage may have got names simply because the stock was abundant at that time."

The situation is not much better today. We see the increasing popularity of JI trying to be captured by the same color photographs in several seed and nursery catalogs with different names! Names that are not registered in AIS. These iris (and their photographs) are coming from mass production nurseries in the Netherlands to various wholesale nurseries in the U.S. There seems to be little concern of keeping specific clones with specific names. In fact all of the "Golden Warrior" or AICHI-NO-KAGAYAKI that we could purchase has grown up to be I. pseudacorus! Buyer beware -- and if possible, please boycott!

Sounds like it may be a waste of time and energy trying to find exactly what iris was being sold under specific names by early twentieth century nurseries. The big problem is, that many of these questionable iris and names take up so much of our current Checklist! And there is no way the CHECK them! Plus, most are now extinct.

As I continue to read and make notes from the robins and letters of these two founding members of SJI, I will report the collected notes of interest.

## COLOR VARIATIONS

John Coble

This article is in response to Bill Ackerman's article in last fall's REVIEW (V.27 No.2, p.55) "A PLANT BREEDER'S DILEMMA". In 1990, this color variation was a gardener's dilemma, and had any of these variants been taken to an iris show, they would have been a judge's dilemma! AIS judges need to visit gardens in bloom and become aware of minor color changes (day-to-day or season-to-season) or dramatic color variants in several varieties of Japanese iris.

Bill is writing about his new introduction ACK-COUNTABLE, a seedling that he has grown and observed for 25 years. This is a marbled or splashed variety, mainly white with variable purple splashes or streaks. In Maine, it was observed in two gardens throwing mainly purple blossoms with few white splashes showing, right beside plants with normal patterned blooms. Un-Ack-Countable? Not really. I've come to learn that this color variation in all splashed varieties can almost be Ex-Pectable!

Our blooming season (and photographing season) was just coming to an end in Michigan when we left for the Maine Convention. I had just finished photographing or noting all of the color variants in our garden. There were several in 1990. My first confirmation that this color variation was not limited to our garden came in Maine in the Bernard McLaughlin garden. There I found HARLIQUINESQUE (Marx/Hager 78) with half of one blossom red-purple with just a couple of white flecks, and the other half of the same blossom the "normal" white centered petals with heavy red-purple splashed edges; two of the petals split this color pattern right down their center. In our own garden I had photographed one of our six plants of HARLIQUINESQUE with the solid red-purple blooms with just a few white flecks. All of our plants came from divisions of one plant.

Then in Maine, ACK-COUNTABLE was noted and photographed for this similar color variation. Another Ackerman cultivar that has shown the same variation is GRAPE FIZZ (Ackerman '81), a dark purple with white flecks on all 9 falls. We have had plants bloom with solid dark purple blooms with just a couple of specks evident. This same phenomenon in GRAPE FIZZ has been noted to us by George Bush in Pennsylvania. The same phenomenon was noted and photographed in 1990 in our garden in one of nine 2-year clumps of NEMURIJISHI, an import with 9-12 falls, light ground heavily splashed violet. The one clump bloomed with mainly dark violet falls and just a few white streaks.

UMI-BOTARU, a 6F import, is white with variable violet splashing, usually about 50-50 in color distribution. This last summer, one of 15 clumps produced almost pure white blooms with very little of the violet splashing -- just the reverse phenomenon noted previously. But I wouldn't be surprised by a mainly violet bloom some year!



It may not be the "norm" for these splashed varieties to produce color variants, but it should not be considered abnormal. I think we are admitting more than we know when we describe these varieties as variably splashed; there is no set pattern to the splashing, and wide shifts may occur now and then.

I'm not convinced that environmental factors (temperatures, soil nutrients, pH, ?) are influencing the chemistry of pigment formation and distribution in the splashed varieties, but have come to recognize that they are highly variable and unstable in the production of a set pigment pattern. Just don't ask me why the same variability showed up in Maine and Michigan in 1990! It is important to recognize that if we would have had just one plant of each of the varieties mentioned above, we probably would not have recognized the dramatic color shift. In our situation of having 5-50 divisions of each variety lined out, the slight and dramatic color shifts are quickly noted and allows us to report this phenomenon.

In 1988 we observed a color shift that was thought to be environmentally induced. The two months prior to bloom gave us no rain (but constant irrigation) and the two weeks prior to bloom averaged daily temperatures of 100 degrees F. IKE-NO-SAZANAMI (Hirao), a 6F white with light blue shading on the petal centers, produced 6F whites with dark blue shadings on the petal centers -- on most plants. Some other varieties that year, i.e. HAGAROMO, that normally exhibit slight or light blue shading or sanding, produced blooms with more pronounced blue. We suspect the influence was 100 degree F temperatures either during bud formation or bloom opening (or it could be an effect of higher than normal night temperatures). There is also the factor that in 1988 the plants were watered more than normal with pH 7.5 well water. Where do we find an avid gardener with the extra time to carry out a scientific study of these pigments vs environmental influences?

## Chapter Two

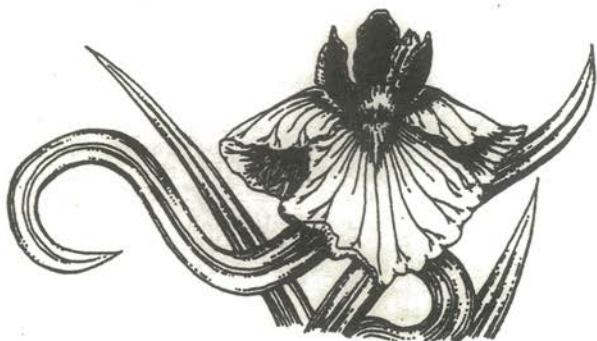
The following is to document a different case of changing flower pigment. When we purchase a new variety, we line it out until it blooms correctly before offering it commercially. About 1986 we ordered two plants of GEISHA PARASOL (Maddocks '64), listed in the Checklist as "6F mottled, striped to solid of rose, fuchsia, blue and mauve; silver edging on all petals." (The dilemma of ambiguous descriptions in the Checklist could be the subject of another whole article)! All of the above mentioned colors were present, mainly in a shading pattern from the white halo to a secondary blue halo, into rose centers shading lighter to the petal edges. Both plants had white styles with violet crests. However, one plant had dark violet veins extending from the blue halo out across the rose petals, the other bloomed with white (or pale blue) rays extending from the white halo across the rose petals! Two different iris? Sister seedlings?



We divided and lined out the two plants separately. Last summer all divisions bloomed and showed us that it was all one variety, yet with variable veining patterns, some blooms mixing the two vein/ray patterns mentioned. One plant produced blooms that were bisected with the color patterns: one half of the bloom had the dark violet veins and the other half had the light blue to white rays! Two petals on this bloom even had the two different vein patterns on each half of the same petal!

If Maddocks would have noted the vein color in his AIS registration description, we would have quickly thrown away the unmatching plants and never found out that they were indeed from the same stock plant. Are they still both correct? Has the mother plant produced a sport? I'll bet GEISHA PARASOL will give some "variably splashed" seedlings!

There is a wonderful "can of worms" here to open in the understanding of the genetics of Japanese iris and their influence by environmental factors. Is there the possibility that some cultivars are producing genetically different sports -- will they be stable? We have yet to mark and watch these noted color variants to see if they will bloom the same year after year. I urge gardeners and judges to please visit as many gardens and view as many cultivars as possible this year. Keep an eye open for any variations in climate or iris color shadings. If you are a connoisseur of Japanese iris, you should want to know how they can perform. If you are an AIS judge, you should certainly be interested in any variables that could show up on the show bench! Those fortunate enough to travel should try to note any difference in color intensity due to very different soil types; a good excuse to visit Portland, Oregon in June!



# SOCIETY FOR JAPANESE IRISES FINANCIAL STATEMENT

January 1, 1990 - December 31, 1990

## MONEY MARKET SAVINGS

Balance on hand 1/1/90	\$6,017.06
Interest	\$373.39
Life memberships (Foreman & Pries)	\$150.00
Donation (C. Withers - Mem. Hale)	\$25.00
Northeast Apagon Auction	\$400.00

BALANCE ON HAND 12/13/90	\$6,965.45
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(Note: \$1125.00 is Life memberships)

## CHECKING ACCOUNT

Balance on hand 1/1/90	\$3,090.93
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### Income:

Dues	\$2,244.50
Interest	\$357.63
Librarian (reprints and slides)	\$119.50
Book sales	\$6,376.43
Auction (Portland Maine)	\$4,821.00
Checklist Sales	\$4.00

TOTAL INCOME	\$13,923.06
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### Expenses:

Secretary (copies, postage, photos)	\$67.68
Librarian (copies, postage)	\$67.50
Editor, Spring REVIEW	\$1,073.10
Editor, Fall REVIEW	\$1,539.11
Engrave Payne medal	\$25.20
Membership Chairman (postage)	\$92.80
Mahan (Postage and Registrations)	\$129.07
Pope (Honorary Medals)	\$106.60
Books (University Press of N.E.)	\$4628.77
Delmez, Postage and Supplies	\$43.23
Auction Check Returned	\$63.00

TOTAL EXPENSES	\$7,836.06
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BALANCE ON HAND 12/31/90	\$9,177.93
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TOTAL CASH ON HAND 12/31/90	\$16,143.38
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Submitted by Carol Warner, Treasurer.

**Note:** The \$5,000 dollars borrowed from the AIS Foundation for publishing the book will be repaid during the AIS Convention in Washington D.C..

## MORE REMINISCENCES FROM ALEX J. SUMMERS

After reading thru my account of past experiences in the fall '90 "Review", I became aware that there was no mention of iris. We do grow iris and I will mention one namely, NORMA. I am grateful that there is a Society for Japanese Irises and that they put out a Checklist and of course, "The Review".

My policy is that very outstanding, or unique, iris will be kept in an effort to identify them correctly if they fail to match the published descriptions. Others that fail to match the published descriptions are discarded. This almost happened to NORMA, because the Checklist states the color is "med. red with deep red purple veins." However, NORMA was a clean lavender and so nice a clump, covered with at least 2 dozen massed flowers, that I decided to keep it and buy more lavender iris to see if it could be matched up and thus identified. Surprisingly, on page 17, Fall '89 issue of "The Review" in the excerpts from the McKinney book of 1927, is the statement that NORMA is "tall, fine, pale lilac-pink self." Perhaps what I have as lavender is actually a pale, lilac-pink self. To be honest, I don't know what pale, lilac-pink looks like. In any case, my plant is probably NORMA, as I received it from a source that did grow Japanese iris on Long Island where Childs was located.

When NORMA was introduced in 1919 by Childs, we lived on Long Island's Gold Coast. Without a doubt, the 20 acres of Japanese iris Childs grew in Flowerfield, was directly tied in, and affected by, the rise and fall of the great moneyed estates on the 100 miles or so of the coast line of Long Island Sound.

Most of the great estates were built in the early 1900's, before World War One. Some few after the war and some before 1900, but not the majority. Our town, actually the outskirts, had J. P. Morgan, the Pratts, Woolworth and many others too numerous to mention. We lived south of the town on a bluff looking over Hempstead Harbor, which was filled with boats belonging to the wealthy, some of which were ocean going ships like Morgan's "Corsair"). Our "ships" were a couple of homemade rowboats built by my father, who was a carpenter. The period before the war saw low wages and low taxes. Estate gardeners were paid twice a month the princely sum of \$20 for 10 hour days. Sundays were the only days off. Some estates, like Morgan's, had 35 gardeners; others two and three times more.

After the war, some of my earliest memories are of the great celebration and 3 butchered pigs hanging head down in the back yard (have no idea what became of the pigs). We still had the outhouse, a wooden ice box, and a cistern with a hand pump for rain water, which ran off the roof, behind the house. Plumbing and electricity came later; hot air furnace with floor grill much later.

With prosperity and higher wages after the war, the estate workers no longer came to work on bicycles. New cars in the mid-twenties were around \$500. All the villages were connected by trolley cars. Streets were macadam or cobble stone. Our 1st new car was a Willy Overland which took us on jaunts all over the Island. (The old Model T Ford was not reliable for any distance.)



This is about the time I first went by Flowerfield with fields full of flowers. I have no idea how big the operation was or how varied the plants grown. Certainly it was more than just irises. In later years I saw fields of gladiolas which were probably a cut flower crop. John Lewis Childs also founded the village of Floral Park which was actually within the New York City limits, quite near where I later lived.

Of course all this changed with the '29 crash and the Great Depression. My father's employer hung himself. I left school and went to work for 25¢ an hour (\$2 a day). My father loved to fish and we had delicious fish 3 times a day. As for the estates, some closed down completely, others permitted the help to live there free, and I suppose many of the flower gardens became vegetable patches. Naturally, some few escaped the estate taxes. But all in all, F. D. Roosevelt wiped them out. He also wiped out the nurseries which were supported by the wealthy. The golf courses survived but the harbor became empty of big yachts. How long Flowerfield survived and at what date it closed down I do not know. The last time I went by it years ago, the fields were empty.

Oh well, I certainly developed a taste for homemade sauerkraut (made with cranberries). Any one care for soup? How about sauerkraut salad? Maybe that was the reason for some of the trips --- big split cabbage heads were 5¢ each on the farms out East!



## THE EDITOR'S "REVIEW"

As the last articles are being typed (on April 15th), it is rainy, with wind, and a little chill. Spring has been slowed down a bit, but not soon enough. It came too early --- the crocus bloomed in March. All the *Magnolia solangeana* buds turned a frozen brown a week ago, just the night before they were to burst into full bloom. But hopefully, the irises will come on, and bloom in season, resplendent for all of the iris shows.

Unfortunately, the publication of this issue is late. It is not due to waiting for material, just being slow in getting to it. My winter schedule had a drastic change from what was planned, with unexpected projects. The results are that none of the "expected" projects were even started, and so we are late. I had hoped to go to the printers by April 1st. My appreciation is extended to all who contributed articles. It is a good variety, all the way from Dr. Yabuya's highly technical and important research, which we are privileged to publish, to the enjoyably nostalgic reminiscences, by Alex Summers, of a time which I can "almost" remember.

I will be unable to attend the SJI Convention in Portland, but my thoughts will be there. It sounds like a good convention and I hope as many as possible will take advantage of this opportunity to view Japanese irises blooming in the Portland area. Thanks to Caryll Randall for volunteering to see that the convention will be well covered for "The Review". she will be seeking help, so if she asks, please give her your assistance by "writing up" a garden or event, or by taking photos.

There are two new shows listed for this year, which is a good sign that the popularity of JIs is spreading, and the good news is being shared. Best wishes to all of the shows for a very successful event. Would the chairman of each Japanese iris show please see that I receive a full report of your show, so that it can be published in the **fall issue**?

I would like once again to remind everyone of the meetings at the Washington and Portland Conventions, and especially of the judge's training session in Washington. It will be a good opportunity to become acquainted with the new standards for judging Japanese irises. These standards have been approved and should be used by all judges. Also, don't forget the popularity poll. How about a landslide participation?

May all of your iris activities and gardens bring you great pleasure in '91.



## 1991 POPULARITY POLL BALLOT

Vote your favorite 10 Japanese irises as seen in gardens this year. They do not need to be listed in any particular order. This form is to be used by both members of a family membership. Place comments on the reverse side. Mail the ballot, post marked no later than Aug. 15th, to:

Mrs. Wells E. (Virginia) Burton  
3275 Miller Dr.  
Ladson, SC 29456

### Member #1.

1. \_\_\_\_\_
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### Member #2.

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Member's name #1. \_\_\_\_\_

#2. \_\_\_\_\_

OVER

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## COMMENTS



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