

Odontoglossum Alliance Newsletter

Meeting Odontoglossum Alliance Santa Barbara, California

11 March 1994

The program for the 1994 Odontoglossum Alliance meeting to be held 11 March 1994 at the Miramar Hotel, 1555 Jameson Lane, Montecito, California is confirmed. Early registration is urged and encouraged. Registration forms are enclosed with this newsletter.

10 March 1994

The registration desk will be opened from 3:00 pm until 6:00 pm in the lobby of the Miramar Hotel.

11 March 1994

The registration desk will be open from 10:00 am until 1:30 pm at the Monticeto Room of the Miramar Hotel.

12:00 pm - 1:00 pm Luncheon at the Miramar Hotel. The location will be posted in the hotel and at the registration desk.

1:00 pm - 4:30 pm Lectures Monticeto Room
The session chairman is Robert Hamilton, the newly elected President of the Odontoglossum Alliance.

1:00 pm - 1:45 pm

"Recent Odontoglossum Intergeneric Hybrids"
by Dr. Howard Liebman

1:45 pm - 2:30 pm

"Recent Awards and Unusual Breeding Lines" by
Bruce Cobbledick, Unicorn Orchids, Daly City,
California

2:30 pm - 2:45 pm

Refreshment Break

2:45 pm - 3:30 pm

"Genetics for Odontoglossums: Was Mendel
Onto Something?" by Professor Steven K.
Beckendorf, Professor, Department of Molecular

and Cell Biology, University of California,
Berkeley

3:30 pm - 4:15 pm

"Orchid Culture in Perlite" by Dr. Wally
Thomas, West Vancouver, British Columbia,
Canada

4:15 pm - 5:00 pm

Business meeting conducted by Robert Hamilton,
President, Odontoglossum Alliance.

5:00 pm - 5:30 pm

Auction of donated high quality Odontoglossum
Alliance material with the proceeds to support the
Odontoglossum Alliance.

5:30 pm - 7:00 pm

No-Host cocktail and social relaxation. Room to
be announced.

The cost of registration is \$25.00 which includes
the lectures, luncheon, business meeting, auction,
no-host cocktail party and a pass to the Santa
Barbara Orchid Show for all days. You are urged
to register early by sending in the registration
form that is enclosed with this newsletter. Also
remember that if you plan to stay at the Miramar
Hotel (phone 1-805-969-2203) that you should
confirm directly with the hotel your room
reservation. Tell the hotel you are with the
Odontoglossum Alliance.

You are also reminded that the Cymbidium
Society holds its congress day on 12 March 1994,
also at the Miramar Hotel, so there is an
opportunity to attend all three functions;
Odontoglossum Alliance meeting, Cymbidium
Congress, and the Santa Barbara Orchid show.
Details of the Santa Barbara Orchid Show are in
the AOS bulletin and in this newsletter the
information to request registration material for
the Cymbidium Congress.

Odontoglossum Lectures Greater New York Orchid Show New York City 24 March 1994

The Odontoglossum Alliance program at the Greater New York Orchid Show, 24 March 1994, is sponsored and organized by the Odontoglossum Alliance. The program is a set of three lectures, each forty five minutes, by distinguished and recognized growers and contributors to the Odontoglossum Alliance. The Greater New York Orchid Show will be held 22-27 March 1994 at the Winter Garden of the World Financial Center Winter Garden in downtown Manhattan and the Marriot Financial Center Hotel in New York City. This will be a combined Greater New York Orchid Show and 39th Eastern Orchid Congress.

The Odontoglossum Alliance program session chairman is Mr. Roger Williams, Vice President of the Odontoglossum Alliance. Last year at the Greater New York Orchid Show Mr. Williams was awarded an FCC/AOS for his Odontocidium Tiger Hambühren x Odm. Hern Thorenson. In this newsletter is a letter from Mr. Williams describing his orchid growing experience.

Lecture #1

"Odontoglossum Growing in Northern France Since 1886" by Maurice LeCoulle

Odontoglossum growing commenced very early in Europe and the firm of Vacherot and LeCoulle were pioneers in France. There odontoglossum growing dates from 1886. Maurice LeCoulle will describe the early beginnings with illustrations. He will show the progress of their hybridization program over the years and display those that have been of the most recent introduction. The firm of Vacherot and LeCoulle of which Maurice LeCoulle is a principal, has been preeminent in the introduction of many new and award winning odontoglossum alliance plants. The firm also did

early and successful work with the technology of mericlone. They were among the first, if not the first, to offer mericlone plants including those of the odontoglossum alliance.

Maurice LeCoulle has been associated with orchids since his early childhood. He is among a handful of people who have attended all 15 World Orchid Conferences. He has spoken many times to orchid interested audiences and always has valuable information.

Lecture #2

"Exploring the Odontoglossum-Oncidium Alliance" by Jerry Rehfield

Looking at Odontoglossum-Miltonia-Oncidium intergeneric breeding and which hybrids have proved to be dead-ends for further breeding. Also what these resulting hybrids look like for size, color, floriferousness, shape, and other features. Of course investigating which hybrids grow well, and under what conditions, in accomplishing all this with a 40 slide presentation. Is it possible? Of course not, but see how close Jerry can get. Jerry Rehfield has been growing orchids for 42 years. His firm, Starbek Farm, is located in Santa Barbara, California. This 7 acre farm on a mountain top is his orchid collection of many genera and an avocado orchard. Jerry is a member of the AOS and a member of the AOS Committee of Affiliated Societies. Jerry Rehfield is an accredited judge in the American Orchid Society and the Cymbidium Society. He has registered many crosses notably in the odontoglossum alliance and cattleya genera. He has received numerous plant awards for his creations and he is a frequent speaker to orchid groups and garden organizations interested in orchids.

Lecture #3

"Recent Odontoglossum Intergeneric Hybrids" by Dr. Howard Liebman

Intergeneric odontoglossum hybridization has been progressing at a rapid rate. Dr. Liebman has created a large number of new hybrids along both traditional and experimental lines. He will review the progress of these directions in breeding, combining that with the work of others

in the field. He will speculate on the future directions that have been opened by this work and report on his own hybridization status. Dr. Howard Liebman has been raising orchids for over 30 years and has been growing and hybridizing odontoglossum and miltonopsis hybrids for over 20 years. He has registered 150 crosses in the odontoglossum and miltonopsis alliance and over 30 of his crosses have received awards from various societies including the AOS and RHS. He has also presented papers at three World Orchid Conferences. Professionally, Dr. Liebman is a physician-scientist and a professor of medicine and pathology at the University of Southern California School of Medicine. He is the author of over 50 scientific papers on blood diseases and aids.

Speakers Program Odontoglossum Alliance Meeting 11 March 1994.

The lecture program commences at 1:00 pm in the Monticeto Room of the Miramar Hotel, 155 South Jameson Lane, Monticeto, California.

Session Chairman: Robert Hamilton, President, Odontoglossum Alliance. Bob was elected President in the most recent election. He has been growing the Odontoglossum Alliance and has made numerous contributions including work in the sowing and growing of Alliance seed and colchicine production of tetraploid odontoglossum species. His work has been published and he is a frequent speaker on topics of Odontoglossum Alliance growing.

1:00 pm - 1:45 pm

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1:45 pm - 2:30 pm

"Recent Odontoglossum Alliance Awards and Unusual Breeding Lines" by Bruce Cobbledick

Bruce Cobbledick is the creator of a number of award winning odontoglossum alliance crosses. He has a continuing interest in the progress of odontoglossum awards and the breeding lines and direction. He has collected slides from the world over on recent introductions and awards. The information is from hybridizers and cultivators. He will review these recent introductions, analyze the breeding lines and hypothesize future results and directions.

Unicorn Orchids specializes in the cultivation and breeding of the finest quality odontoglossum alliance material. Bruce Cobbledick, the owner and grower, has been an orchid fancier for 38 years, focusing on different genera at various times. The Odontoglossums and the associated genera and intergenerics have been his main focus for the last 18 years. He has given lectures throughout the United States, Canada, Great Britain, and New Zealand. He is the featured speaker on the American Orchid Society video series of Orchid culture of the cool varieties. He is an American Orchid Society judge. He was one of the original founders of the

Odontoglossum Alliance, and its only President until the last election when he was elected to Chairman of the Board of the Odontoglossum Alliance.

2:30 pm - 2:45 pm Refreshment Break

2:45 pm - 3:30 pm "Genetics for Odontoglossums: Was Mendel Onto Something?" by Professor Steven Beckendorf

Although breeding of cultivated orchids began over a hundred years ago and despite the fact that there has been intense interest in "improving" orchid flowers by hybridization and line breeding, there have been few serious attempts to understand orchid genetics. This talk will attempt to show that for Odontoglossums as well as other orchids, a few simple crosses could begin to define the inheritance of many traits such as the shape of the lip, upright spike habit, tendency to produce multiple spikes on each bulb, patterns on the sepals rather than the petals, season of blooming, etc. In addition Professor Beckendorf will describe some of the genetic consequences of changes in chromosome number and the results of crosses between distantly related species. This talk will summarize some of the current ideas about orchid genetics as applied to odontoglossums, and hopes for the future. Professor Steven K. Beckendorf first became interested in orchids in the early eighties when his wife, Julie, acquired two out of bloom cymbidiums. He wasn't fully converted to orchids until, again, Julie convinced him to visit the Santa Barbara Orchid Show in 1983. Overwhelmed by the variety and beauty of the plants exhibited and available for sale, they proceeded to fill the car with orchids, mainly cymbidiums. He and Julie have been hooked on orchids ever since. Julie was also responsible for their decision to focus on Odontoglossums. She purchased a few from local vendors and then saw an ad in the AOS Bulletin for odont flasks from Bob Dugger. That really got them started. Their greenhouse is now mostly filled with odonts, about two thirds hybrids and one third species. As an Associate Professor of Genetics at the

University of California, Berkeley he studies the development and genetics of the fruit fly, *Drosophila*. Because of this background he has become more interested in growing and breeding orchids, and concerned himself with what could be done to understand their patterns of inheritance. His talk will summarize some of the current ideas about orchids, as applied to odontoglossums and hopes for the future.

3:30 pm - 4:15 pm "Orchid Culture in Perlite" by Dr. Wally Thomas.

Dr. Thomas reports on 5 years experience of growing orchids in perlite only. Perlite has many excellent characteristics as a substrate, such as availability, competitive cost, neutral pH and aeration, but its most endearing characteristics are that one cannot over water, potting is extremely easy and so is the overall management. Being sterile is also a significant advantage in establishing seedlings out of flask. The capillary effect allows the use of a reservoir in the bottom of the pot to give a constant supply of nutrient solution with no concern about media breakdown. Repotting need only be done when room is needed for the new growth. Complete fertilizer control is easy to achieve and levels may be followed by testing the reservoir supply. The details of growing in perlite will be explained, the results described and illustrated. Dr. Wally Thomas is a retired Physician who has been growing orchids, mainly Odonts for 30 odd years. His collection was started with plants mainly from Charlesworth and Co. in the early 1960's. The main collection is housed on a 7 acre island, Charles Island, 40 miles from Vancouver, British Columbia. He has had a particular interest in culture and has experimented with a wide variety of substrates and fertilizers. He has made and registered a number of Odontoglossum Alliance crosses.

At present he is chairman of the 1996 AOS trustees meeting and of the 1999 World Orchid Conference, both of which are to be held in Vancouver.

Auction Donations Wanted Odontoglossum Alliance Meeting

11 March 1994

The Odontoglossum Alliance meeting on 11 March 1994 will have an auction of donated odontoglossum alliance material. In the past this has been the opportunity to acquire high quality plants and other memorabilia. The Alliance is asking for donations to support the auction. These may be brought to the meeting or may be sent ahead of time to:

Mr. Jerry Rehfield

Starbek Farm

7305 Shepard Mesa Road

Carpinteria, CA 93013

The generosity of those who have donated previously has been gratifying and permitted the Alliance to hold dues to low numbers and continually increase the quality of the newsletter and other activities of the Alliance. We are looking forward to another well supported auction through your generosity .

Invitation Attend the Cymbidium Congress

The registrants and friends attending the Odontoglossum Alliance meeting 11 March 1994 at the Miramar Hotel in Santa Barbara are invited to attend the Cymbidium Congress meeting at the same hotel on 12 March 1994. For registration information and material contact:

Mr. Grant Cole

P.O. Box 1122

Whittier, CA 90609-1122

Phone 310-947-5233

Odontoglossum Alliance Species Description

Miltoniopsis by Leonore Bockemuhl

Miltoniopsis Godef.-Lebeuf 1889

This genus has a rather confused history. Discoverer of the type species *Miltps. vexillaria* was Bowman, who collected it in Columbia 1866. Reichenbach f. described it in Gard. Chron. 1867 and named it *Odontoglossum vexillarium*. In 1886 it was transferred by Nicholson to the genus *Miltonia* Lindl. where it remained up to nowadays, though the authors, Godefroy and Lebeuf had created a new genus with it, the genus *Miltoniopsis*, *Orchidophile* 9/63 in 1889. Not before the authors of "Venezuelan Orchids" Garay and Dunsterville had revived (1976) this, the nomenclature was accepted. *Miltoniopsis* consists of 6 species, all of them distributed in the Andean Region of South America and in Central America, in contrary to the true *Miltonia* species which are inhabitants of Brazilia. *Miltoniopsis* differs in having a very flat lip decorated with two erect ears at the very base; the short, erect column shows a specific shape of basal hollow. The epiphytic growing plants are medium-sized, the inflorescences arise from base of rather flattened bulbs and bear up to 6 relatively large flowers with colors from pale rose to purple-rose, decorated with the typical yellow area in center.

The artificially produced hybrid genus remains named for registration purpose *Odontonia* = *Odontoglossum* x *Miltonia*, though the botanical correct name for the latter mentioned genus is *Miltoniopsis*.

Miltoniopsis roezlii

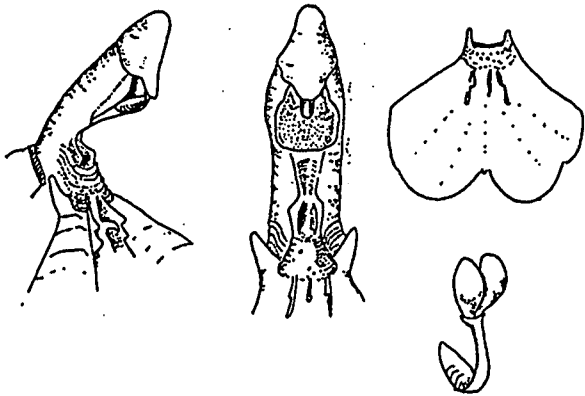
(Rchb.f.) Godfr.-Loeb. 1873

This species with lovely white-colored flowers resembles as well in habit of plant as in shape of flower to all other species of this genus.

However, there is a remarkable difference concerning the climate of habitat.

Roezl discovered this plant 1873 on the banks of

"River Dagua" in Antioquia (Columbia) at an altitude about 350 m, in the warm lowlands. The species was described by Reichenbach f. and named *Odontoglossum roezlii*. The history of nomenclature is more or less the same as happened to all species of this genus. This species should be kept in culture under conditions being more warm than those for Andean growing plants.



Miltonopsis roezlii

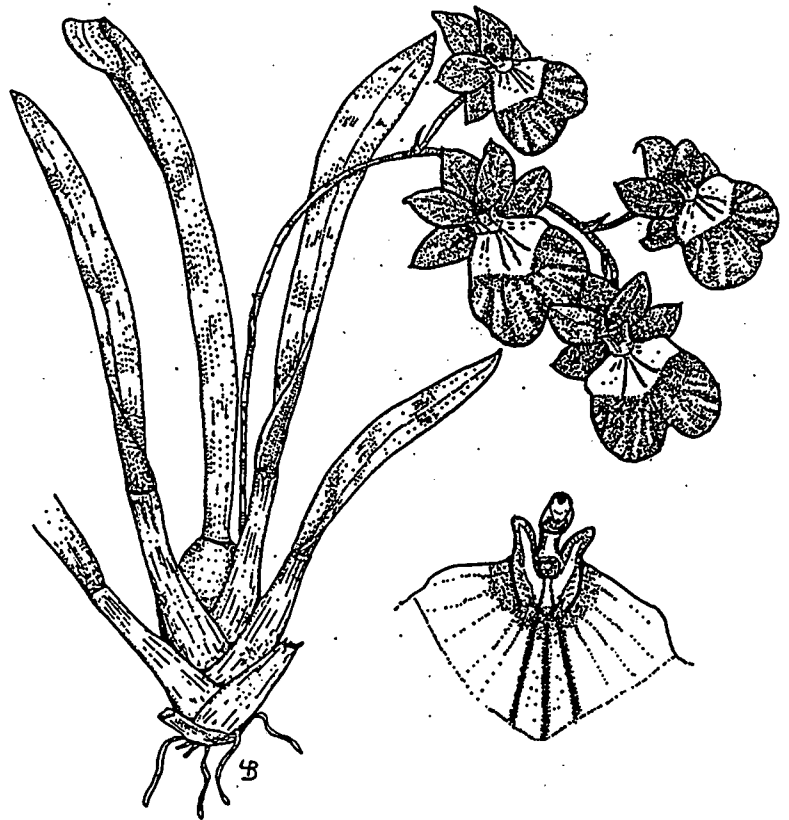
Miltoniopsis vexillaria

(Rchb.f.) God. Leeb 1889

Epiphytic growing, medium-sized plant with somewhat flattened bulbs, unifoliate, surrounded by several foliaceous sheaths. Inflorescence arising from base of bulb with up to 6 flowers, widely spread, about 6 cm across; the color variation is enormous, reaching from almost white to dark rose-purple with the typical yellow area on the base of the lip. Sepals more or less alike obovate-oblong 25 x 15 mm, petals similar in shape, somewhat larger; Lip flat, suborbicular, 2-lobed in front, bearing an upright auricle on each side of the column. Column short, wingless, forming a cavity at its base. Habitat: At forest-edge in the cloud forest at altitudes about 1500 m - 2000 m; high humidity all over the day.

Distribution: Columbia and Ecuador

Species of the genus *Odontoglossum*, used for breeding: *Odm cirrhosum*, *Odm harryanum*, *Lemboglossum uro-skinneri*



Miltonopsis vexillaria

Miltoniopsis phalaenopsis

(Lind. et Reichenb. f.) 1854

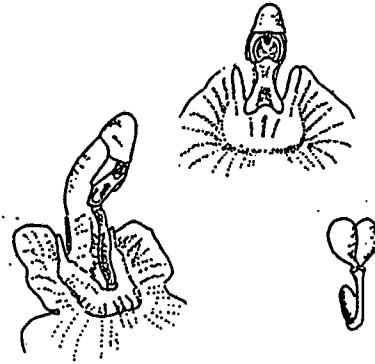
Garay and Dunsterville

The habit of plant differs from the other species of the genus in having sometimes bifoliate bulbs and more slender leaves surrounding the bulb; the elongate inflorescence, two to three-flowered, mostly shorter than the leaves. The flowers are about 5 to 6 cm across, white-colored with dark blotches surrounding the yellow central area of lip.

Schlim collected in 1850 the plant and sent it to Linden, Brussels, where it was described in collaboration with Reichenbach f. in the "Bonplandia" 1854, named *Odontoglossum phalaenopsis*. Nicholson transferred it to *Miltonia*; this has been the first species of the group of the Andean-growing "Miltonias" to be collected and it needed more than 120 years until it was registered under its correct name by Garay and Dunsterville in 1976.

Habitat: In shady and rather wet places, mostly epiphytic at altitudes between 1300 m to 1600 m.

Distribution: Columbia, eastern Cordillera of Santander and Norte de Santander.



Miltonopsis phalaenopsis

Odontoglossums in Columbia

by Juan Felipe Posada M.

Once upon the time, just one hundred years ago Colombian Andean Mountains hosted the most beautiful and extraordinary *Odontoglossums* that have been seen. To verify this we just have to go through the old books: *Reichenbachia*, *Lindenia*, etc, etc. *Odontoglossum crispum* varieties "spectabile", "luteo-radiatum", "fastuosum", "Ashworthianum", "Rayon D'or", "auriferum", "Griselidis", "Quo Vadis"; *Odontoglossum pescatorei* varieties "Roi Leopold", "Lindenianum", "Lindeniae", and countless natural hybrids, to name just a few, are well above today's standards and would very likely deserve FCCs and Gold Medals anywhere. What is really pitiful is that these wonderful species perished or were lost through the time and today this great genetic potential has been lost to mankind. Just take a few seconds to think what could be done today using our modern techniques with species like the ones that arrived in Europe during the past century and the first years of this one.

Unfortunately here in Columbia the *Odontoglossum* natural habitats have been destroyed. Agriculture, pastures and fire have in no way helped to preserve nature in its original condition. Progress, civilization (they call it) has

come by, struggling *Odontoglossums* and all other native flora and fauna every day further back. Very few sites have been left untouched and the efforts being made now to preserve them are not promising. Possibly the only positive view of our "guerrillas" is the conservation of these forest mountain sites where they hide and keep free of visitors.

Looking from another point of view Columbia never had orchid nurseries, either big or small, that, like the old European establishments, acquired plants for selection, reproduction and trade. Nobody in this country was interested in growing orchids and/or conserving good varieties of what was once easily available. Only in the last 25 to 30 years have orchid amateurs become aware of what an extraordinary array of species grew in our country. Since then progress has been made, undoubtedly, but alas, when we started, those wonderful old goodies were already lost for the world, not only in their native habitats but also in greenhouses.

Let us hope that in the near future professional and selective collections with conservative purposes can be done in these few original habitats that are still left. At that moment, even if we can not find any more the formidable varieties seen and pictured in the past, the new plants will allow us, *Odontoglossum* lovers, to obtain fresh blood material for reproduction and hybridizing.

Another avenue to explore by *Odontoglossum* Alliance lovers at this moment can be to think and work with some of the other species still available and not intensively used in the past. Other genera and species different from *crispum* and *nobile* still can be found and working with them seems a challenge for the future. It may be that *Odontoglossums* like *ioplocon*, *lindenii*, *cirrhosum*, *naevium*, *tripudians*, *nevadense*, *Oncidiums* of the *Cyrtorchilum* type, and others can turn out some new crosses with a different look.

Now we can not cry over spilt milk. Something has to be done, and that is exactly what a handful of orchid lovers are doing. Selection of what is left, location of new and better clones, reproduction and hybridizing are coming up and

hopefully in a near future some good things will be offered to share with our foreign *Odontoglossum* Alliance enthusiasts.

Calle 11A No. 438-68

A.A. 50494

Medellin, Columbia

AOS *Odontoglossum* Alliance Trophy?

John E. Miller

There has been an increasing interest expressed by a number of members of the *Odontoglossum* Alliance to establish an AOS trophy to be awarded annually to the best *odontoglossum* alliance plant exhibited. Lee Cooke, Executive Director of the American Orchid Society, examined the situation and explained the procedure.

First there does not now exist an AOS Trophy for the *Odontoglossum* Alliance. The closest that comes to it is the James & Marie Riopelle *Miltonia* Award. The AOS would welcome a request by the *Odontoglossum* Alliance to establish an *Odontoglossum* Alliance award. I quote the part of Lee Cooke's letter that defines the establish of an AOS Award.

"The minimum amount to establish such an award is \$5000, an amount the AOS Trustees set forth to discourage dozens and dozens of less-than-serious nominees from coming forth. There's a cap too: \$13,000. Traditionally, what has occurred is that a group of specialty devotees recognizes a void in our listing of prestigious awards (as you have), and goes about nominating an individual whose outstanding efforts are acknowledged as being particularly outstanding with the Alliance. Or sometimes a group of orchidists simply wants to honor an individual for his/her life-long contributions to the hobby or specialty.

The request for such an award needs to go, first ,

through the COA (Committee on Awards). A well-thought-out, formal proposal letter -- with all rationale for the establishment of the award included therein -- should be sent to the COA chairman (with copy to me) far enough in advance of an AOS meeting so as to allow the chairman to include the request on his/her agenda. In this letter, one should include reference to having raised the minimum funds necessary to establish the award. The letter should, also, state that someone is prepared to outline the proposed award to the COA during their upcoming meeting. This person may, of course, already be on the COA, or any other AOS committee.

That's basically it. The COA then either accepts or rejects the proposal. If it's accepted, it goes to the Trustees for consideration as an action item during their Friday meeting. If the Board accepts the COA's recommendation and a favorable Board vote occurs, then the award is authorized. Officially, it's established when the raised monies are forwarded to me (a check is often handed to me during the meeting) so that the endowment can be established back at AOS Headquarters. Each year's monetary award is, thereafter, made up of the accumulated interest on the principal endowment, and a gorgeous certificate is also forwarded to the recipient. Naturally, the more monies raised for the permanent endowment, the larger the annual monetary award. And, of course, monies can be contributed over the years to an award, up to the \$13,000 cap."

There are currently nine such AOS awards established. The next meeting of the Odontoglossum Alliance Board of Directors and membership is 11 March 1994. This is at the Miramar Hotel in Santa Barbara and is detailed in this and previous newsletters. Should the membership accept a proposal to establish a specific AOS award for the Odontoglossum Alliance, then the raising of the necessary funds for the endowment becomes of paramount importance. I believe that our membership would support a suitable AOS Odontoglossum Alliance award both with their vote and contributions.

I look forward to a lively discussion of this issue at the meeting. I expect to see more than one proposal for the award.

Current AOS TROPHIES Nax Trophy.

Endowment at 10/31/93: No monies were ever put forth to establish an endowment for this award. Scuttlebutt has it, however, that there is a group of orchidists who are attempting to raise the endowment monies. This prestigious award, the first of the AOS permanently endowed annual awards, was established in 1964 to be granted each year by the Trustees of the AOS to the grower of the most outstanding species awarded by the AOS during the previous calendar year. The love of orchid species, which Mickey and David Nax developed early in their orchid hobby, has been uniquely preserved in some 700 species which Mickey has cast in gold. Twelve of these solid gold orchids are encased in the acrylic, monolithic Nax Trophy, which was donated to the AOS in 1964 and which is now permanently housed at AOS Headquarters in West Palm Beach, Florida. The Nax winner's name and that of his or her plant is inscribed alongside those of the past recipients on the trophy.

Butterworth Prize.

Endowment at 10/31/93: \$5,910. This prestigious award was established in 1966 to be granted annually by the Trustees of the AOS to the grower of the plant exhibiting the finest orchid culture awarded by the AOS during the previous calendar year. The endowment for this award was established by Mrs. Rachel Butterworth Dietz in memory of her parents (John and Nancy Butterworth) and of George Butterworth Sr., president of the American Orchid Society from 1953-56.

Masatoshi Miyamota Cattleya Alliance Award.

Endowment at 10/31/93: \$6,205. This prestigious award was established in 1991 to be granted annually by the Trustees of the AOS to the grower of the most outstanding member of the

Cattleya Alliance awarded by the AOS during the previous calendar year. The endowment for the award was established by the friends of Masatoshi Miyamota in recognition of this modest gentleman's lifelong dedication to the breeding of fine cattleyas, especially yellows. "Miya" was never too busy to lend a hand to a friend or to teach a new grower the fine points of superior culture.

William W. Wilson, M.D. Cypripedioideae Award.

Endowment at 10/31/93: \$8,490. This prestigious award was established in 1991 to be granted annually by the Trustees of the AOS to the grower of the most outstanding example of the Cypripedioideae Alliance awarded by the AOS during the previous calendar year. The endowment for the award was established by the friends of Bill Wilson in recognition of his more than 50 years of service to orchids and their growers. An expert on the Cypripedioideae, Dr. Wilson's blooms have won seven FCCs and nearly 550 other AOS awards. In addition to conducting a fruitful hybridizing program, Dr. Wilson is an AOS Judge Emeritus and a respected author.

Carlyle A. Luer Pleurothallid Award.

Endowment at 10/31/93: \$10,356. This prestigious award was established in 1992 to be granted annually by the Trustees of the AOS to the grower of the most outstanding member of the Pleurothallidinae awarded by the AOS during the previous calendar year. The endowment for this award was established by the friends of Carlyle Luer in recognition of his invaluable, unique taxonomic work which has inspired the explosive interest in the Pleurothallidinae in recent years.

**Roy T. Fukumura
Vandaceous Award.** Endowment at 10/31/93: \$8,710. This prestigious award was established in 1992 to be granted annually by the Trustees of the AOS to the grower of the most outstanding plant in the Vandaceous Alliance awarded by the AOS during the previous calendar year. The endowment for this award

was established by the friends of Roy Fukumura in recognition of his lifetime work in hybridizing and his devotion to superior orchid culture. Among his most noteworthy achievements was one of his Ascocenda hybrids, Yip Sum Wah, the most highly awarded orchid in the AOS judging system's history.

Merritt W. Huntington Award.

Endowment at 10/31/93: \$9,860/ This prestigious award was established in 1992 to be granted annually by the Trustees of the AOS to the most outstanding plant awarded a First Class Certificate by the AOS during the previous calendar year. The endowment for this award was established by the friends of Merritt Huntington in recognition of his lifetime dedication to the finest in orchids and his exemplary service to the American Orchid Society.

Herb Hager Phalaenopsis Award.

Endowment at 10/31/93: \$12,380. This prestigious award was established in 1992 to be granted annually by the Trustees of the AOS to the grower of the most outstanding Phalaenopsis awarded by the AOS during the previous year. The endowment for this award was established by the friends of Herb Hager in recognition of his lifelong dedication to the advancement of orchids, especially phalaenopsis, through pioneering hybridizing and superior culture.

**James & Marie Riopelle
Miltonia Award.** Endowment at 10/31/93: \$7,700. This prestigious award was established in 1993 to be granted annually by the Trustees of the AOS to the grower of the most outstanding Miltonia species and intersectional hybrids awarded by the AOS during the previous calendar year. The endowment for this award was established by the friends of Jim and Marie Riopelle in recognition of their lifelong dedication to the advancement of orchids, especially Miltonia, through pioneering hybridizing and superior culture.

Growing Warm Odontoglossums in Japan

by Akira Onishi

Introduction

It was twenty-three years ago that I was fascinated with the beauty of a white *Odontoglossum crispum*, when heating and cooling systems were not so improved as they are now. I built a 3 by 2 meter greenhouse, equipped with a heater and an air-conditioner, and began to grow cool-growing *Odontoglossums*. However, they are native to the high mountains in the Andes, and could hardly survive the hot summer of Japan, only to get weak day by day. This, of course, was due not only to the climate, but also to my inexperience in growing career. As a grower who loves beauty of cool-growing *Odontoglossums*, I could not endure letting my plants die one after another and thought of making hybrids of cool-growing *Odontoglossums* and their relative genera, which could be grown in Japan without an air-conditioner.

Climate

There are four distinct seasons in Japan: spring (March, April, May), summer (June, July, August), fall (September, October, November) and winter (December, January, February); temperature and humidity considerably change from season to season.

The table below will help to give some idea of the climate of the part of Japan where I live.

Table I

	Average Temperature	Maximum Temperature	Minimum Temperature	Average Humidity
February	3.8 deg C	13.6 deg C	-0.6 deg C	59%
May	17.1 deg C	28.3 deg C	4.2 deg C	66%
June (rainy season)	21.8 deg C	30.1 deg C	18.0 deg C	75%
August	26.9 deg C	34.9 deg C	19.1 deg C	74%

N.B. The figures in the table are according to the data of Himeji Observatory, about 20 kilometers away from my town, Kakogawa.

March and April are the best time for most of orchids, including cool-growing

Odontoglossums. In May, weather begins to affect the growth of cool-growing *Odontoglossums*. From the middle of June to the beginning of July is a rainy season; weather in general is rainy or cloudy; both temperature and humidity are high. After the rainy season comes hot summer, when temperature gets still higher; this is the hardest season for cool-growing *Odontoglossums*. As the figures of temperature in Table I are those observed outdoors, they may be 3 deg - 5 deg C higher inside a greenhouse. In the summer season, therefore, there are many days when temperature rises up to around 40 deg C inside my greenhouse, even with 50% shading to keep them cool, while I grow my plants in the greenhouse all year round. In fall, as daytime temperature remains rather high, care is needed to keep temperature from rising high for the culture of cool-growing *Odontoglossums*. In winter, they grow well along with other orchids in a greenhouse without special care. The length of the period of sunshine in one year is about 50% of the daytime.

Greenhouse.

My present greenhouse is a 4.5 by 15 meter detached one. Heating is by circulating water warmed by kerosene burner; there are three circulation fans inside. The thermostat is so designed as to allow temperature inside to vary in proportion to outdoor temperature.

My greenhouse accommodates orchids of various genera; about 70% of my collection is warm-growing *Odontoglossum* allied genera and the remaining 30% is composed of *Cattleya* alliance, species and miscellaneous genera.

Temperature

The great problem with a greenhouse like mine is setting of temperature as well as watering. My rule is to set temperature first for the alliance largest in number, and then find a better point by considering the results. For instance, when the thermostat is set at 10 deg C to 12 deg C for warm-growing *Odontoglossum* allied genera, stains appear on the petal of *cattleya* flowers; then it is set at 15 deg C to 17 deg C; this does not cause harm to warm-growing *Odontoglossum* allied genera; on the contrary, they grow better at the temperature.

In Japan, temperature inside a greenhouse often exceeds 30 deg C even in May; if it exceeds 35 deg C, medium- or large-flowered warm-growing *Odontoglossum* alliance will flower somewhat deformed or their colors lose brightness; at 40 deg C, both colors and shapes becomes very poor. Considering this, a little higher temperature in winter is rather preferable to their culture. Small-flowered warm-growing *Odontoglossum* allied hybrids flower well at high temperature, although their inflorescence gets longer. Therefore, it seems best to keep maximum temperature in the daytime at 30 deg C. This, however, does not apply to the plants that are grown around 10 deg C and have flowered by the end of April.

Watering

Warm-growing *Odontoglossum* allied genera need much water in their growing season; in other seasons, too, cares must be taken to keep them somewhat moist and not to leave them dried out for a long period; in summer, they also need heavy watering to be kept cool. In other words, they need water almost all year round. This often causes root rot and quick decomposition of compost. In order to avoid this, it is essential to use a pot somewhat smaller than the standard size and a compost of good drainage. Even if they are grown about at 10 deg C in winter, they have to be kept moist. Towards summer, as daytime temperature in a greenhouse gets higher, watering on the aisles and spray over plants are effective in order to keep nighttime temperature down; spray during the daytime should be avoided, for it causes damage to roots and young green leaves when temperature is high.

Watering after repotting or division should be spared for a time; I only spray over repotted or divided plants. When I repot or divide, replacing old compost by new one, I resume normal watering in about ten days. When a plant is repotted into a larger pot without removal of compost, I begin watering in about five days.

Light

As warm-growing *Odontoglossum* allied hybrids involve several genera, some of them prefer strong light. This is especially true on the hybrids which involve *Oncidium*s; when they are

grown under weak light, their leaves and inflorescence lack sturdiness and the number of flowers is small. But since it is also important to keep them cool in summer, I grow them under 50% of shading from June through October.

Repotting and Division

The flowering period of warm-growing *Odontoglossum* allied hybrids in my greenhouse ranges from December through April. This may be both because they are complex of three or four genera and because they can be grown at comparatively low temperature. This wide range of their flowering period brings about the problem of when to repot. Though they are warm-tolerant to a considerable degree, repotting from June through August should be avoided. Repotting must be done so that repotted plants may recover by the end of May and survive summer in good vigor; The best time for repotting with my plants is, therefore, early spring; I sometimes have to cut off inflorescence of the plants in flower to repot them. The second best time is early fall - September. The same can be said with the time of division. When a plant is divided, cares must be taken so that each division may have at least three bulbs.

After division of repotting, leaves of old bulbs sometimes turn yellow and drop; this is not necessarily harmful. But when a leaf of a new bulb drops, it will be a sign that the plant is in unhealthy condition, for leaf drop of a new bulb is also observed when a plant is repotted after being left dried out for a long time or grown under very high temperature in summer.

As warm-growing *Odontoglossum* allied genera have thin, weak roots, repotting or division must be done carefully so that they may not be damaged. Especially damage to roots of small seedlings delays their growth and first flowering. I make it a rule to grow plants as large as possible in a community pot and then plant in a three-inch pot. Rapid-growing plants flower in this pot size and are than half of my seedlings flower in a four inch pot.

Warm-growing *Odontoglossum*s allied hybrids seem to grow better in a pot a little smaller than the standard size. I choose to size of a pot so that it may be full when another new bulb is formed.

As pots are small compared with the size of plants, they tend to be unstable. In order to solve this problem, I put crock or rocks in the bottom of the pot. Other growing techniques are the same as are employed in the culture of *Oncidiums* or *Miltonias*.

Potting Materials

At present I use coconut husk chips with a plastic pot. I began to use this medium three years ago, though I don't think this is the best material, it seems to produce fairly good results if used carefully; it is cheap, comparatively durable, and has good drainage. But there are also some problems with it; root action is rather slow, so it is not fit to establish weakened or rootless plants; since it is light weight, a pot is apt to be unstable (This could be solved by putting crock or rocks in the bottom of the pot); it provides good shelter for insects and slugs and the latter especially do great harms by eating flowers and young shoots; fungi easily grow in this kind of medium, especially when humidity is high. If these problems are solved, coconut husk chips will be best material for me.

I have also used other kinds of potting materials, so I would like to make some comments on them.

Combination of a clay pot and sphagnum moss is also excellent. I still use them to establish small seedlings just taken out of flasks. However, sphagnum moss of good quality is getting scarce in Japan, and many growers have to use sphagnum moss imported from New Zealand, so its cost tends to be high. Heavy watering to hybrids of warm-growing *Odontoglossum* alliance often causes damage to their roots and fast decomposition of sphagnum moss. But this combination of a clay pot and sphagnum moss is still popular among orchid growers in Japan. Another medium I have tried is a potting mixture of six parts pumice stone, two parts peat moss and two parts vermiculite. By changing the size of pumice stone, this medium can be used for plants of various size - from community -pot-size plants to blooming size plants. The problem with this potting mixture is that the peat moss and vermiculite are decomposed in two years after potting and piled up at the bottom of a pot, which

causes root rot. When pumice stone alone is used, watering must be done too frequently. This potting mixture can be used either with a clay pot or with a plastic pot.

When I try a new potting material, I make it a rule to set a test period of five years and get conclusions about it.

Fertilization

In the growing season I fertilize my plants with 1000-time diluted hyponex solution once a week. Warm-growing *Odontoglossum* allied hybrids are not uniform in their growth. I gather the plants at a similar stage of growth in one corner for uniform fertilization. I also fertilize by placing one or two large pellets of Mag Amp K per square inch and remove them when necessary. This is effective to prevent root damage through over fertilizing. When small pellets are used, they dip into among potting medium (coconut husk chips), and are hard to remove.

I once used organic fertilizer like milled fish meal or animal bone. But when this kind of fertilizer is applied to coconut husk chips, it causes growth of fungi, so I have stopped using it now. Fungi easily grow especially when humidity is high.

For fertilization of small plants in a community pot, it is safe to use hyponex solution diluted with 1000 times of water.

Pesticide and Fungicide

Pesticide for slugs and snails is used all year round. In the flowering season it is applied heavily to prevent them from eating buds and flowers. Pesticide for aphids and scales are used in their propagation season. I spray three times at the interval of one week.

Fungicide is used once a month except in the flowering season. As it also does harm to the plants when temperature is above 35 deg C, I do not use it in the hot daytime; it is safe to spray it in the evening or on a cloudy day.

Hybridization

At the start of hybridization, my aim was to produce warm-tolerant (up to 35 deg C) hybrids with full, round, brilliant-colored flowers. But to get enough viable seeds in this kind of intergeneric hybridization is pretty difficult; the

chances to get viable seeds are about 10 to 20%. This may be due either to the climate of Japan or to bad combination of parent plants. This disadvantage, however, can be offset by making many crosses. I make plans for hybridization so that I can always keep more than one thousand unflowered seedlings, see 50 - 100 first flowers every year and select excellent plants from among them or test how far warm-tolerant they are.

Conclusion

Warm-growing *Odontoglossum* allied hybrids can tolerate heat in summer to a considerable degree. But the ideal range of temperature for their culture should be between 30 deg C (maximum daytime temperature) and 15 deg C (minimum nighttime temperature).

If seedlings are grown in quantity, some of them get acclimatized to the environment of the greenhouse and grow well in hot, humid weather in the summer of Japan; and when they flower by the end of April-- before the coming of the hot season, they produce large, delightful flowers. However, when their flowering season delays into June, because of division or repotting, their aiming at full, large flowers, we must select parent plants considering the flowering season as well as the warm-tolerance of their progeny.

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Articles

The Editor is always looking for articles and material for the newsletter. If you have some *odontoglossum* alliance information, an article, announcement, or picture you would like printed in the newsletter send it along to:

Odontoglossum Alliance

P.O. Box 38

Westport Point, MA 02791

If you want some information on the *Odontoglossum* Alliance or wish to see certain subjects addressed in the newsletter correspond to the same address.

Letter from the Vice President

Roger Williams, Vice-President
Odontoglossum Alliance

I began my horticultural career by growing corn behind the Columbia Street Coast Guard Discharge Center in Brooklyn where I ended my World War II stint as a pharmacist's mate. Thankfully I was discharged before the ears were ready for harvest.

I started growing orchids about 1957 but it wasn't until 1965 that I was introduced to *Odontoglossums* by Don Richardson who was determined to convert me into a 'cool grower'. I was a dedicated *phalaenopsis* lover. I'd learned sterile technology while attending Columbia University School of Pharmacy and I was busy making crosses and flasking and not interested in any other genera.

Don had bought most of a collection of Charlesworth crosses - big, husky plants and he talked me into buying the remaining plants. I housed them in the tiny boiler room in the greenhouse, stuck a fan in the window and hoped for the best. Out of the dozen plants I purchased came 4 AOS awards. What a beginning! Now I had to learn to grow them.

In 1980 when we moved I built a *phalaenopsis* house and gave away the cool collection because of inadequate light. What a mistake! By 1988 I built a small addition - unfortunately the 12' x 12' room lays in the shadow of our house facing NorthEast and is very dark. From the fall to early spring I use 2 high pressure sodium fixtures for 5 1/2 hours a day to supplement the meager light.

It's a struggle here on Long Island. Summers are very hot and seem to go on forever. But orchid growers are optimistic.

We have a pod on a red Remembrance that I crossed with *Odontocidium* Mayfair 'RCW' FCC/AOS (Golden Gates' wonderful cross that we purchased a seedling from Tom Perlite) - perhaps they'll be some seed. I'm ever hopeful that next summer will be cool. I'm still studying and experimenting with new mixes and asking

questions and still meeting head-on the challenge of growing these cool beauties up to their potential.

Roger Williams
Oyster Bay, New York

Odontoglossum Alliance Meetings Scheduled and Proposed

11 March 1994 - Scheduled: Lectures, Business meeting, auction, luncheon in conjunction with the Santa Barbara International Orchid show, Santa Barbara, California.

24 March 1994 - Scheduled: Lectures in conjunction with the Greater New York Orchid Show, New York, New York

26-30 April 1995 - Scheduled: Lectures, luncheon, Business meeting, auction in conjunction with the Western Orchid Congress, Portland, Oregon

10-14 April 1996 - Potential: Odontoglossum Alliance meeting in conjunction with the AOS Trustees meeting Vancouver, B.C., Canada

6 May 1998 - Potential: Odontoglossum Alliance meeting in conjunction with the Eastern Orchid Congress, Toronto, Canada

23 April-2 May 1999 - Potential International Odontoglossum Alliance meeting in conjunction with the World Orchid Conference, Vancouver B.C., Canada



Miltonopsis vexillaria



**Miltonopsis
roezlii**



**Miltonopsis
phalaenopsis**