# Odontoglossum Alliance Newsletter

# Odontoglossum Officers Elected

The Board of Directors has elected Bruce Cobbledick Chairman of the Board, Robert Hamilton, President, Roger WIlliams Vice President and John Miller Secretary-Treasurer. The addresses are as follows: Chairman of the Board Bruce Cobbledick 6340 Crown Avenue Oakland, CA 94611

President Robert Hamilton 2439 Woolsey Street Berkeley, CA 94705

Vice President Roger WIlliams P.O. Box 479 Oyster Bay, NY 11771

John E. Miller P.O. Box 38 Westport Point, MA 02791

Thanks and appreciation to Dr. Richard Kaufman who as Chairman pro tem led the Board during the election process.

### Program

Odontoglossum Lectures Greater New York Orchid Show New York City 23 March 1994

The Odontoglossum Alliance program at the Greater New York Orchid Show, 23 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 World Financial Center. Winter Garden and the Vista International 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 Dr. Richard Kaufman. Dr. Kaufman is a physician who has been growing orchids for more than 17 years. He is an accredited American Orchid Society judge. His major interest in orchids are the cool growing genera particularly miltonias, odontoglossums, and

masdevallias. In addition to this he grows assorted species including numerous lycastes and phrags.

#### Lecture #1

"Odontoglossum Growing in Northern France Since 1886" by Maurice LeCoufle Odontoglossum growing commenced very early in Europe and the firm of Vacherot and LeCoufle were pioneers in France. There odontoglossum growing dates from 1886. Maurice LeCoufle 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 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 mericloning. They were among the first, if not the first, to offer mericlone plants including those of the odontoglossum alliance.

Maurice LeCoufle 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. He 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. He is a frequent speaker to orchid interested 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.

### Letter from the Chairman

It is an honor to be elected to the Board of Directors of the Odontoglossum Alliance and then to be selected as Chairman. I will do my best to live up to the challenges presented from this job and to fulfill my responsibilities. We are fortunate to have a devoted editor for our newsletter, the quality of the newsletter continues to improve. The newly elected Board of Directors have a lot of knowledge and a fervent interest in our favorite orchids, this along with a diverse background should help this organization continue to grow.

A project that I would like to see materialize is the presentation to the American Orchid Society of a perpetual trophy for the best Odontoglossum alliance award of the year. Most other genera of orchids are represented by such trophies and the Odontoglossum Alliance is missing.

Bruce Cobbledick Unicorn Orchids 144 Station Street Daly City, CA 94014

Newsletter

### Letter from the President

Hello! I'd like to introduce myself. I'm Bob Hamilton, your current President of the Odontoglossum Alliance. I share with every member of the alliance an interest and love for Odontoglossums. I helped organize this alliance several years ago with a small group of Odontoglossum growers. Our purpose was to encourage the growing and culture of Odontoglossums and provide a vehicle for communication, information sharing and « knowledge. Candidly our early efforts were less-than-satisfactory. There were a few, sporadic newsletters and an occasional meeting. A new tack for the Odontoglossum Alliance was set when John Miller, current newsletter editor, applied formidable organizational skills to make this organization ordered and robust. In short, we are on our way!

Odont lovers can look back to a rich heritage. The future is also bright. New genetic combinations are producing exciting and vigorous hybrids. Some of these are the results of professional breeders, but many come from hobbyists. An increased interest by orchid growers in the Oncidinae and intergenerics is the engine driving these efforts. Studies on the cytology of Odonts such as chromosome counts and DNA sequencing are helping to establish better pathways for hybridizing. Breeders from warm parts of the country are increasing the diversity and grow-ability in these areas. Alliance members with species collections are propagating and preserving these treasurers of nature -- an effort at a critical juncture in human history. The Odontoglossum Alliance has established contacts with growers in Australia, England, New Zealand, Central and South America.

As a result of our Alliance, we should see significant improvements in the quality of Odontoglossums--arguably the most beautiful flowers the world has to offer! I have heard our epoch referred to as "the age of information". Through the Odontoglossum Alliance, its newsletter and meetings we will see, to quote Robert Dugger, a "New Start".

Robert Hamilton 2439 Woolsey Street Berkley, CA 94705

# Program Odontoglossum Alliance Meeting 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 in the lobby of the Miramar Hotel. 12:00 pm - 1:30 pm Luncheon at the Miramar Hotel. The location will be posted in the hotel and at the registration desk.

1:30 pm - 4:30 pm Lectures

The session chairman is Robert Hamilton, the newly elected President of the Odontoglossum Alliance.

1:30 pm - 2:15 pm

"Lewis Knudsen, His Life and Times" by

Professor Joseph Arditti, Professor, University of California, Irvine.

2:15 pm - 3:00 pm

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

3:00 pm - 3:45 pm 👘

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

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#### Berkeley

3:45 pm - 4:30 pm

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

4:30 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.

The cost of registration is \$25.00 which includes the lectures, luncheon, 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 before 25 January 1994. That is the date that the block of rooms held by the Odontoglossum Alliance that have not been reserved will be returned back to the hotel. You are also reminded that the Cymbidium Society holds it conference 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 will be in the AOS bulletin. In this newsletter is an invitation to attend the Cymbidium Congress.

# Speakers Program for The Odontoglossum Alliance Meeting 11 March 1994.

The program commences at 1:30 pm in 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.

1:30 pm - 2:15 pm

"Lewis Knudsen, His Life and Times" by Professor Joseph Arditti.

Lewis Knudsen made significant contributions to the asymbiotic germination of orchid seed. His work opened the world of orchids to all. Professor Arditti spent years researching and writing a highly definitive, objective and readable biography of Knudsen. The talk can be appreciated at several levels: Knudsen's personal life and career, his work habits, his many contributions to orchidology and plant physiology in general.

Dr. Joseph Arditti is a professor in the Department of Developmental and Cell Biology at the University of California, Irvine. He joined the staff in 1966 and became a full professor in 1977. Professor Arditti is the author of numerous books and articles on orchids and orchid biology, including, with Robert Ernst, "Micropropogation of Orchids", forth coming from John Wiley & Sons, and "Orchid Biology, Reviews and Perspectives, Vols, I-V. Dr. Arditti was elected Honorary Life Member of The American Orchid Society in 1976 and has received many awards for his work, including the Gold Medal of the Orchid Society of South East Asia (Singapore) in 1990.

He was inspired by his love for books and his love of orchids to write "Fundamentals of Orchid Biology". Professor Arditti lives in California with his son, Jonathan.

2:15 pm - 3:00 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 resulted 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 feature 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.

3:00 pm - 3:45 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.

3:45 pm - 4:30 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

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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.

### Invitation To All Members of The Odontoglossum Alliance and their Friends:

It is our esteemed pleasure to share the orchid scene with you at the 49th Santa Barbara Orchid Show on March 11, 12, and 13, 1994. It is also our pleasure to invite you to join us for the 19th Annual Cymbidium Congress on Saturday, March 12, 1994 at the Santa Barbara Miramar Hotel.

For the last eighteen years, the Cymbidium Congress of the Cymbidium Society of America has been a concurrent event of the Santa Barbara International Orchid Show. Membership in the Cymbidium Society is not a prerequisite to attend the Congress. The Congress is open to the public and you may purchase any or all functions at the Congress.

The Congress consists of three functions: The first is the lectures, which is a day long symposium of six lectures, commencing at 8:30 a.m., with a brief general meeting of the Cymbidium Society. The speakers will be from all over the orchid world and the topics will cover a wide range of subjects usually applicable to cymbidiums, paphiopedilums, and other cool-growing genera.

Two of the lectures will be panel discussions. One panel will be moderated by Dr. Norito Hasegawa, of Paphanatics Unlimited, and discuss paphiopedilium culture. The other panel will be moderated by Mr. Ernest Hetherington, of Stewart Orchids, and will discuss problems associated with cymbidium cultivation. Panelists will be from the ranks of both hobbyists and commercial growers. Other speakers will be: Loren Batchman of Casa de las Orquideas, Dr. Harold Koopowitz of University of California at Irvine and Paphantics Unlimited, Marilyn Levy from the AOS and CSA judging staff, and Mr. Keith Andrew of Keith Andrew Orchids Ltd., England, who will also be our dinner speaker. The lectures will be interrupted for two refreshment breaks and an optional informal luncheon. These are excellent opportunities to meet someone interesting from half-way around the world and exchange orchid information. The last function is the exciting banquet which is the awards banquet for the Santa Barbara show. The evening festivities will commence with a cocktail hour at 7:00 p.m. and dinner at 8: p.m.. The banquet is usually well attended by the local growers and others who are too busy during the day to share the fellowship of the Congress. Cymbidium Congress registration brochures will be mailed out with the January-February 1994 issue of the Orchid Advocate. If you don't receive it, then write for more information to: The Cymbidium Congress P.O. Box 1122 Whittier, CA 90609-1122 USA You may also call at area code (310) 947-5233, request a brochure, and leave your name and mailing address.

I look forward to the pleasure of meeting you at the next Cymbidium Congress Sincerely yours, Grant Cole

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Chairman

### **Donations for the Auction 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.

# Available to Members In Stock Currently Shipping Orders

### Veitch's Manual of Orchidaceous Plants 1887 - The Oncidinnae

The New Zealand Odontoglossum Alliance has re-printed Veitch's Manual of Orchidaceous Plants - The Oncidiinae. The Alliance is offering this publication for sale. We have received a supply and have filled all back orders for the book. The book is the Oncidiinae section removed and enlarged from A5 to A4 and with the original color maps re-printed in color. It is priced at \$50.00 per copy post paid in the United States and \$52.00 outside the United States. This classic work contains 250 pages of cultural, historical and habitat information plus many beautiful line drawings, a glossary of terms and three color maps of where they come from. Orders should be sent to the Editor along with payment. Shipment will be done promptly. Send order and check to:

John E. Miller

P.O. Box 38

Westport Point, MA 02791

make check payable to: Odontoglossum Alliance

# The Trials of a Rookie Odontoglossum Grower

#### by Gordon Nash

There must be ways in which orchid growers have 'stumbled' through the first years of their hobby. this article gives a fairly light-hearted look at the development of my orchid keeping hobby over its first two years.

#### How It Began

With my family and friends I have developed something of a reputation of not doing things by halves. I didn't realize what lay ahead when I walked into Burnham Nurseries one grey morning in June 1991 while on holiday in Devon. The weather had looked anything but promising when we stood in a Tourist Information Centre flicking through leaflets looking for indoor entertainment. The words 'Orchid Paradise' loomed before our eyes and half an hour later I was bewitched by the variety of colours and flower shapes, not to mention the fragrances of the orchids on display.

In due course advice was sought regarding the likelihood that there might be a plant which I could keep alive in my 10 ft. by 8 ft. aluminum greenhouse alongside an unlikely collection of fuchsias, pelargoniums and begonias, not to mention a couple of tomato plants. The greenhouse was unheated but I would take my orchid into the house during the winter. It was decided that an odontoglossum might suit my needs best. I was pointed in their general direction, told there were plenty to choose from and left to make my choice. I walked along the row of plants looking at names which wouldn't have been out of place to me if they had appeared on a doctors prescription. I'm sure I walked past hundreds of Vuylstekearas and Burrogearas; I even recall seeing names which

were nearly right such as odontonia, odontocidium, and odontioda, but I had been advised to choose an odontoglossum Some time later I had to admit I wasn't very good at finding and choosing an orchid and sough help. But the obliging gentlemen was very patient and I eventually walked out clutching something called Vuylstekeara Cambria "Plush" and wondering what had happened to the advice that I should buy an odontoglossum! The First Greenhouse

Why is it that I always make the mistakes first and get the advice afterwards? I had bough a little book from the local garden centre. (How impressed i was when I discovered it was co-authored by the same person who had sold me my plant.) This gave me the impression I may be swimming against the tide by trying to provide the necessary conditions for my orchid in a modern centrally heated bungalow. And besides, that little book had contained lots of mouth watering photographs of other orchid plants which I would have loved to grow and flower. Soon afterwards a 'beginners collection' of twelve cool-growing plants were sitting on a table in the spare room waiting for a home. Home, I had decided, was to be an inexpensive 8 ft. by 6 ft. greenhouse which would sit neatly alongside my existing 8 ft. by 10 ft. I couldn't see myself growing orchids in a big way, and it wouldn't cost a lot to heat, being small. At this point I didn't know any other growers, and, living in West Yorkshire, the only orchid nursery I knew was nearly three hundred miles away. The books I had bought were helpful, but were never intended to provide comprehensive information on greenhouse culture. so I gave a lot of thought to keeping winter temperatures high enough and one to keeping summer temperatures down. I had a layer of gravel on the floor beneath the staging to provide humidity and lined the wall with a layer of 'bubble insulation'. Shading was attached inside the greenhouse, after all its purpose was to provide shade, wasn't it? Small wonder the temperature went into the high 30's C at times the first summer - even with the roof vent (Yes, just one!) fully open. The gravel received a watering can full of water morning

and night but the relative humidity still registered less than 30% most days. An oscillating fan was purchased and placed in one corner (to circulate the hot, dry air better), and amazingly my plants not only survived, but grew and sometimes flowered. In fact I would go as far as to say they defied all my early attempts to make life as hard as I could for them.

#### The Beginnings of a Collection

My first twenty or so orchid plants were a mixture of cool-growing hybrids and species from a variety of genera. From a very early stage, however, I had a desire to specialize. I suspected I could have more success by tailoring my greenhouse conditions to growing plants which had very similar needs. By this time I had discovered and visited a number of orchid nurseries close to my home. With nurseries such as Mansell & Hatcher and David Stead Orchids on the doorstep I was destined to see high quality odontoglossums. So it was not surprising that my taste became dominated by the odontoglossum alliance. My collection began to build through a combination of buying flowering sized plants and new crosses in collections of 10 to 20 at a time. this would give me flowers for now and flowers to look forward to in the future. Also, filling my greenhouse with flowering size plants would be very expensive way of building my collection. In a moment of inspiration when I heard that Allan Long at Mansell & Hatcher was going to the Eric Young Orchid Foundation to collect plants for sale, I asked him if he would bring me back some good quality odontoglossums. The resulting plants were stunning and excellent value for money. My worry was that they might deteriorate when removed from the superb growing environment on Jersey but my fears were unfounded as they have continued to grow and flower strongly.

#### Upwardly Mobile

The trouble with orchids is that they grow! Not twelve months after setting up my 8 ft. by 6 ft. greenhouse I was getting a n uncomfortable feeling that my new hobby was already outgrowing its home. The problem was, although I could see a solution by moving into my 8 ft. by 10 ft. in the short term, in the long term this would not be ideal either. Drastic steps were called for - ultimately I would have to dispose of both my greenhouses and replace them by one larger model - say 20 ft. by 10 ft. My father always unselfishly gives me his time and help when there is heavy work to be done and must by now have decided that growing orchids is very hard work. It is all about erecting and dismantling greenhouses, wiring heaters, thermostats, fans, lights, sprinkler systems, moving earth and gravel (tons of it) as well as a multitude of other heavy and monotonic jobs. I'm really very lucky he always helps me so much with my crazy projects - who else would have a father that would help him put up a greenhouse one year and then snip it down not twelve months later? If only he wouldn't start at 8 o'clock in the morning even on a Sunday. Perhaps I should be grateful for tolerant neighbors as well.

I also managed to put a whole new complexion on the term 'growing orchids indoors'. Can you imagine opening the door of the spare room to see every last square centimeter of the floor covered with orchids? The door actually brushed the foliage as it swung open. I didn't even have space to leave a path to the other side of the room. Walking to the window was a delicate maneuver which had to be achieved by moving plants out! Life can be tough when you're between growing houses.

But eventually my lovely new 20 ft. by 10 ft. was tucked in nicely behind the garage complete with two compartments, triple glazed polycarbonate, underneath misting, extractor fans, etc...etc. and an orchid collection which continues to fill it rapidly. I am now at the point where I spend several hours a week just watering a nd am beginning to appreciate that there must be a limit to the number of plants I can find time to look after. And I will probably find it within my current set-up.

#### For the Future

At a rough estimate my collection now extends to some 250 plants which range from flowering sized to young plants in 2.5 inch pots. Many have yet to flower for the first time and although I enjoy it when any orchid sends up a spike, I feel a tremendous sense of anticipation when a previously unflowered plant produces a spike for the first time. Will I like it? Will it be disappointing? Will it be unusual? Will it be exceptional or spectacular? I have recently taken to purchasing new odontoglossum crosses in flasks. Again I have not been disappointed as the survival rate has been very good. As I now have plants of all sizes in the pipeline, my intention is to continue to buy plants of all sizes, but also flasks at regular

intervals with the intention of growing them to flowering size, keeping the better ones (the ones I like best) and disposing of the remainder. In this way I hope to upgrade my collection constantly. 7 Bransdale Close

Altofts, Norman West Yorkshire WF6 2SL

# Disease and Pest Control in the Odontoglossum Alliance

by Dan Harvey

Although elementary the most important feature of disease and pest control in the genus Odontoglossum and its hybrids is prevention. Close adherence to the cultural practices described is worth more than all the chemical controls you can purchase. By reducing the stress which is frequently caused by incorrect culture most diseases can be prevented. When cultural practices are lacking weak fungal and bacterial pathogens are frequently secondary to insect or pest control.

#### Insect and Other Pests

Fortunately the genus Odontoglossum and its hybrids are troubled by relatively few insect pests. Perhaps this is due in part to the relatively low temperatures at which Odontoglossums are grown. This statement is based in part on observation as the warmer summer months are frequently accompanied by an increase in insect problems. The following are a few pest which may be observed when growing Odontoglossums. <u>Scale Insects</u>

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Scale insects can be a problem with Odontoglossums as well as other orchids. There are many different types of scale and they frequently multiply unnoticed until large populations exist. Symptoms to watch for include the presence of ants which feed on the sticky honey-dew secreted by many of these insects. The occurrence of black or sooty mold on the foliage is also indicative of the presence of scale. The physical appearance of scale insects vary to include the cotton-white down of Boisduval scale or the hardened mounds of brown scale. Mealy bugs are yet another type of scale which are familiar to many orchid growers.

Due to the hardened outer body or waxy secretion, scale insects can be difficult to control. Diazinon and Malathion are effective insecticides especially when used with a surfactant to cut the cutin or waxy body secretion. Mites

Mites of all types can be a problem when growing Odontoglossums. Mites can leave the foliage pitted with dark lesions and if left unchecked eventually kill the host plant. Do not take comfort in an apparent lack of webs, not all mites leave them. I recall one summer on Vashon Island when I sprayed our Miltonias with fungicide for weeks before discovering false spider mites and no webs!

Mite populations explode under hot, dry conditions as a result there is a direct cultural link to their control. Keeping the growing area humid and as cool as possible during the summer can reduce mite populations dramatically. Chemical control of mites includes Klethane,

Pentac and micro-encapsulated products such as Knox Out. Use a surfactant for more effective control.

<u>Mollusks</u>

Slugs and snails are a real problem for many Odontoglossum growers. Mollusks thrive under the same cool, moist conditions that your odontoglossums enjoy. Slugs and snails are so voracious in the autumn I consider them to be our number one pest in the Pacific Northwestern United states. Mollusks destroy roots, flowers and new growths. What they don't eat they mark with slime and droppings. The active ingredients in most molluskicides to date has been metaldehyde; a very effective compound. The Environmental Protection Agency has reduced the amount of active ingredient (metaldehyde) allowed in these products in recent years requiring more frequent applications. Measurol and Zectron, although expensive, are reported to provide reliable control.

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Slugs and snails can be prevented from entering the growing area by sprinkling a band of rock salt around its perimeter. It brings sadistic joy to my heart to watch slugs writhe in this crystal death. This may sound severe but when you grow a choice plant for a year only to find half its buds missing one morning, you'll feel as I do. Aphids

Aphids are seasonally a major concern to Odontoglossum growers. By summers end it you grow in a greenhouse or outdoors weekly treatments may be necessary. In addition to causing flower deformity, aphids are thought to spread virus.

Aphids are a soft body insect and as a result the nymphs and adults are relatively easy to control. Diazinon and Malathion are effective chemical controls. Common household dish soap at a rate of 1/2 teaspoon per quart of water quickly kills adults and nymphs when applied 'as a spray. I keep a small atomizer or mist bottle around for spot treatments.

#### Fungal and Bacterial Disease

Fungal and bacterial diseases can present big problems for Odontoglossum growers. The cool, moist conditions associated with Odontoglossum culture are the same temperatures at which these pathogens flourish. Fortunately nearly all fungal and bacterial diseases can be controlled by correct culture.

Symptoms of bacterial and fungal diseases include leaf spotting and watery lesions which can cause plant collapse in worst case situations. Frequent repotting, good air movement and attention to watering are imperative to prevention of fungal and bacterial diseases.

I will not go into depth in an attempt to distinguish between fungal and bacterial diseases, description is better left to pathologists.

Generally speaking however, many leaf spotting diseases are fungal where watery rots in new growths are frequently bacterial. This is important as fungicides do not control bacterial rots and the same is true of bactericides and fungal diseases. Identification of a particular stubborn problem may be necessary. Most universities have agricultural pathology departments.

In addition to correct culture, chemical controls include the following which I apply on a preventative basis. Consan is an excellent fungicide and is reported to act as a bactericide by its manufacturer. A number of growers use Consan in small dosage with every watering as it is also an excellent surfactant aiding in the quick drying of plants. Dithane, Subdue, and Chipco are also excellent fungicides.

Many bactericides marketed in the U.S. contain copper as their active ingredient and when used with discretion provide excellent control. Copper compounds should only be applied as needed or at 3-4 month intervals. Copper toxicity can become a problem especially if your water supply tends to test acid on the pH scale. Virus

Several different viral diseases have been isolated in Odontoglossums. At this point in time virus is incurable in plants and prevention is the only cure. Proper sterilization of cutting tools when removing flowers or repotting is essential. Tools should be heated until glowing red to prevent the spread of virus. Diligent control of insect vectors is also crucial. Suspect plants should be removed from the growing area and tested by a reputable laboratory.

#### **Final Notes**

If possible all orchid growers should have a quarantine area where they can isolate new plants. A period of 4-6 weeks should be sufficient as most insects and pests have a life cycle shorter then this under normal conditions. Precautions should also be taken when applying any pesticide. Proper breathing apparatus is a must when applying chemicals. An area where orchids are grown is typically enclosed and drifting pesticides can be deadly. Large hardware stores sell carbon filter masks in the paint section at reasonable prices. Their use cannot be stressed enough.

Although the information provided may seem severe, Odontoglossums have comparatively few pests or problems associated with their culture. As a major commercial grower of many different types of orchids the Odontoglossum are a favorite and present relatively few problems. This is meant to inform and provide information on pests and disease control. I can only emphasize again that with good culture nearly all of the pitfalls described can be avoided.

### Getting Ready for an Orchid Show

#### by John E. Miller

In November 1992 I signed up for a display of 25 square feet in the Massachusetts Orchid Society Show scheduled for 16 April 1993. Immediately I started worrying about getting ready to put up a display. My major concern was "Would I have enough plants in bloom for a suitable display." I calculated the need for one plant per square foot of display space. Those plants had to be suitable for the show. To achieve this I thought I needed to have two plants in bloom in the greenhouse for each one used for display. This would give me suitable selection of the freshest and best material. Thus my problem was "Would I have fifty plants in bloom in the greenhouse when it came to show time?"

In November I started counting each week, as I watered in the pots, the total number of spikes. This included everything from the first sight of a spike tip to a plant fully in bloom. I excluded those plants in flower that would were so faded as to be unsuitable for display. After several weeks of counting the total number of spikes, I commenced counting the number of blooming plants, suitable for show selection as well. Thus I had two numbers counted on approximately weekly intervals. (Total spikes and blooming spikes)

Then I started prediction by taking the number of blooming plants on a given day. For that day I found the number of days before the show time. From the current date I counted backwards to

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number of days before show time to find the total number of spikes. I divided this number into the current number of blooming plants. Next I multiplied that ratio times the current number of total spikes to achieve a prediction of the number of blooming plants to be available at show time. For example at 40 days before the show time I had 25 plants in bloom. 40 days earlier, or 80 days before show time I had 92 total blooms and spikes. This meant that at 40 days before the show time I had 27% of the plants at 80 days before show time in bloom. Now since at 40 days before show time there were 100 total blooms and spikes I predicted that I would get 27% of those, or 27 plants, in bloom at show tume. The graph shows the actual number of blooming plants at a given number of days before time. The graph shows the actual number of show time and also the number of plants predicted to bloom at show time. The model is telling me all along that I will not have enough plants in bloom. Yet at the actual show time I had achieved enough plants in bloom. What happened? Probably several things, but as one proceeds to show time the days are getting longer and warmer. That speeded up the blooming. I have plotted below the data from this study. As you can see from the data on the total number of spikes, this grows as the days get longer up until the middle of April when the blooming seasons begins to end. Remember zero (0) days is the middle of April. From the + marked graph you can see the number of blooming plants rising. The diamonds is the predicted number of blooming plants to be available at show time. Using this prediction method, the last prediction, a week before show time, missed the actual by about 25% and this on the low side. It was enough to make me worry that I would not have enough plants for the display table selection. I plan to keep this data again this year to try and improve the prediction method. It at least tells me some bounds on the size of the display that I could support at future shows. In preparing for the show I tried a number of

ideas that were collected over the years. My plants dry out very badly at shows. They often are returned to the greenhouse with shriveled bulbs. This year I tried taping a paper cover over

the top of the pot. Since the plants were covered with moss or bark in the display this covering could not be seen, but it did help prevent the plant from drying out. Before taking the plants into the show I watered them well. When the show was finished I cut all the flowers (except for a few of the most hardy). This helped the bulb shriveling and made plant recovery faster.



#### **Advertising Policy**

It is the intention of the Odontoglossum Alliance to support commercial suppliers of alliance material. Two forms of advertising are available: 1. Mail Lists, and 2. Advertisements in the Newsletter.

#### 1. Mail List

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For those suppliers who wish to do their own mailing the Alliance will supply a current copy of the membership list and a set of mailing labels. The cost for this is \$5.00. We ask that is using the mail list to advertise alliance material that the members of the Odontoglossum Alliance receive such advertisement a reasonable time ahead of other advertising.

2. Advertisement in the Newsletter. The Newsletter will include in it's mailing a supplier's advertisement for alliance material. To use this method the ad must be supplied on 8 1/2" x 11", black and white only, reproducible copy. The Newsletter will reproduce the ad and enclose it in the next mailing.

Receipt by

15 April for the May letter 15 July for the August letter 15 October for the November letter 15 January for the February letter The cost for this service is \$30.00. Our present circulation is over 100 and growing. For running an ad at these rates we ask the material advertised be announced as available to our members a reasonable time before it is announced elsewhere. We will also supply you wilt a sheet advertising membership in the Alliance and ask you to enclose it with your orders. Checks should be made payable to: Odontoglossum Alliance.

Send you request for the mailing list and/or Ad to:

Odontoglossum Alliance John E. Miller P.O. Box 38 Westport Point, MA 02791

# **Odontoglossum Alliance Species Description**

Lemboglossum by Leonore Bockemuhl Lemboglossum Halb. 1984 Schlechter in his studies on the genus odontoglossum 1914 expressed his opinion concerning the problem of generic limits: "In no way is it easy to assign firm generic limits to odontoglossum, for there is a whole series of species by which the limits are completely removed; the main characteristic of odontoglossum lies in the lip claw which is almost parallel with the column, from which the blade usually departs almost at a right angle ... ". Basing on this situation Halbinger could point out that among the Mexican and Central-American' odontoglossums we find 14 species differing in their floral aspects from the type species of odontoglossum but forming a natural group of identical characteristica. The combination of these features separates them clearly from all other odontoglossums and justify the creation of a new genus.

So Halbinger established in Orquidea (Mex) 1984 the new genus LEMBOGLOSSUM.



Figure 1. Typical feature of the genus Lemboglossum the callosity and adnation to column.

The genus consists in 14 species, all native to Mexico and Central-American and differ from odontoglossum in the following characteristica: The lip is clawed, the claw standing in an angle about 90 degrees from the column, prolonged to form a fleshy, boat shaped callus, projecting forwards into a pair of fleshy teeth. Plants are medium-sized, the bulbs rounded to elongate, one-to-three foliate, surrounded by mostly non-foliaceous sheaths. Inflorescence arising at base of bulb with large flowers. Sepals and petals alike. Lip cordate to roundish. Column slender. Most of the species grow epiphytic on mossy branches of oaks and pines in mountain forest at altitudes of 1400 meters to 3000 meters. Some 5-7 species have been used for artificially breeding - the mostly favored are the ones with bright purple-lilac flowers from Guatemala. Lemboglossum rossii

(Lindl.) Halb 1984

Epiphytic growing dwarf plants; bulbs ovid 5 cm high, unifoliate, enclosed from the base by two non-foliaceous sheaths; Leaf elliptic-lanceolate-acuminate up to 20 cm long with up to 4 flowers, 5-7 cm across, white of pale-rose with spots of brown. Sepals and petals more or less alike, oblong-elliptic subacute, margins of petals slightly undulate; Lip from a

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short claw, blade wide suborbicular to subcordate, undulate, white. Callus on the claw fleshy, with raised edges forming a boat-shape, the central process apically biforcate, yellow. Column slender, wingless. Lord Ross collected the plant 1837 in Mexico (Oaxaca) and sent it to Barker in Birmingham. Lindley described it in Sert.Orch 1838 and named it in honor of his discoverer <u>Odontoglossum rossii</u>. When Halbinger established the genus Lemboglossum in 1984 he choose this species to be the type. Habitat: Epiphytic on moss-covered trunks and branches in humid canyons with mixed forest. Distribution: Mexico, Guatemala, Honduras and Nicaragua at altitudes of 2000 m to 2800 m.



#### Lemboglossum rossii

#### Lemboglossum madrense(Rchb.f.) Halb.1984

Epiphytic growing plant, medium sized; bulbs narrow-oblong to 12 cm high, one-to-three leaved; enclosed from the base by several foliaceous sheaths; leaves linear-lanceolate, acute, to 25 cm long. Inflorescence lateral, 20 cm long with up to 7 flowers, 5 cm across, white with brown center. Sepals and petals lanceolate acuminate, petals wider; all white with brown oblong blotches at base. Lipblade triangular acute, white with a yellow semicircle at base. The yellow callus united with the claw, the lateral margins araised, forming a boat-shape, the central process apically bidentate. Column slender, insignificant auricles beneath the stigma. M. Roezl was the discoverer of this species, which was described by Reichenbach in Gard.Chron 1874 and named Odontoglossum madrense, referring to the place of origin. Halbinger transferred the species to the new genus Lemboglossum 1984.

Habitat: Epiphytic on moss-covered branches of old oak trees in mixed forest in humid, foggy areas.

Distribution: Endemic to Mexico in the Sierra Madre del Sur in altitudes of 2000 m to 2700 m.



#### Lemboglossum madrense

#### Lemboglossum cordatum(Lindl.) Halb.1984

Epiphytic growing plant, medium sized, bulbs ellipsoid to 9 cm high, unifoliate, enclosed from the base in several foliaceous sheaths. Leaf elliptic-lanceolate apiculate to 30 cm long. Inflorescence lateral to 40 cm long with up to 12 flowers, 4-7 cm across, yellow-greenish spotted or barred with brown. Sepals and petals similar

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in shape elliptic-lanceolate-longacuminate. Lipblade cordate-deltoid, abruptly acuminate, whitish with brown spots. Callus united with the claw, the lateral margins araised boat-shaped, bidentate at apex, yellow. Column slender, wingless. Due to the large distribution of this species the color and flower-shape shows plenty of varieties. The species was first introduced to England in 1838 by Barker at Birmingham and was described by Lindley in Bot.Reg. the same year and named Odontoglossum cordatum. Halbinger in 1984 transferred it to the genus Lemboglossum.

Habitat: On moss-covered trees in cloud forest in humid areas at altitudes of 1900 m to 2500 m. Distribution: Mexico, Guatemala, El Salvador, Honduras and Costa Rica.



Lemboglossum cordatum

Lemboglossum maculatum(La Llave & Lexarza) Halb.1984

Epiphytic growing plants medium sized, bulbs oblong to 10 cm high, unifoliate; enclosed from the base by one to two foliaceous sheaths. Leaf lanceolate apiculate to 25 cm long. Inflorescence lateral 30 cm long with up to 7 flowers, 4-7 cm across, yellow and brown. Sepals lanceolate-acute, brown; petals oblong-acuminate, yellow with brown blotches on the basal third. Lipblade triangular, cordiform, yellow with brown blotches. Callus on the short claw, the lateral margins araised to form a boat-shape, bidentate at apex, yellow. Column slender, wingless. La Llave and Lexarza, the Spanish botanists discovered the plant in Mexico in 1824. They published the description in their monograph "Novum Vegetabilium" 1825 and named it Odontoglossum maculatum. The name refers to the spotted lip and petals, characteristic of the species. Halbinger in 1984 transferred it to the genus Lemboglossum.

Habitat: Epiphytic on moss-covered trees, mostly oaks, in mixed forest in areas with abundant mist.

Distribution: Mexico, Guatemala and Costa Rica at altitudes of about 2000 m to 2700 m.



#### Lemboglossum maculatum

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#### Lemboglossum apertum

Lemboglossum apterum (La Llave & Lexarza) Halb.1984

Epiphytic growing plants, medium sized; bulbs ovid-compressed to 11 cm high, two-to-three leaved; enclosed from the base by several foliaceous sheaths. Leaves lanceolate acute to 30 cm long. Inflorescence lateral 20 cm long with up to 5 flowers, 7 cm across, white with brownish or greenish small spots on the lower third of all segments. Sepals and petals similar, elliptic-ovid acuminate, petals wider, undulate. Lipblade subtriangular, margins dentate. Callus on the claw, boat-shaped, fleshy, diverging in two teeth, yellow with red streaks. Column slender, wingless. La Llave and Lexarza described this species in their monograph "Nova Venget" 1825. They collected the plant in Mexico and named it Odontoglossum apterum in allusion to the wingless column. In 1984 Halbinger transferred the species to the new genus Lemboglossum.

Habitat: Epiphytic in moss on huge oak trees in humid mixed forest.

Distribution: Endemic to Mexico at altitudes of 1900 m to 3000 m.



#### Lemboglossum uro-skinneri

#### Lemboglossum uro-skinneri(Lindl.) Halb. 1984

The epiphytic and terrestrial growing plant is medium sized; bulb ovid to 9 cm high, one-to-three leaved, enclosed from base by several foliaceous sheaths. Leaves lanceolate-acuminate 20 cm long. Inflorescence lateral with and erect scape to 100 cm long, sometimes branched with up to 25 flowers; flower 5 cm across. Sepals and petals similar ovate-acuminate greenish with brown transverse bands. Lipblade cordate or widely triangular, margin undulate, finely dentate, white with lilac spots and blotches. Callus on the claw, fleshy, boat-shaped, apically bidentate. Column slender with subquadrate wings besides the stigma. G. Ure Skinner discovered this species in Guatemala

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and sent the plants in 1859. Lindley described and named the species in honor of its discoverer Odontoglossum uro-skinneri in Gard.Chron. 1859. Halbinger transferred the species to the new established genus Lemboglossum in 1984. Habitat: Terrestrial, sometimes epiphytic and mostly litophytic on rocks in humid forest. Distribution: Endemic to Guatemala at altitudes of 1800 m to 2200 m.

Lemboglossum bictoniense (Lindl.) Halb. 1984

The medium-sized plant grows terrestrial or litophytic; bulbs ovid to 6 cm high, two-to-three leaved; enclosed from base by several foliaceous sheaths. Leaves lanceolate-acute, to 40 cm long. Inflorescence lateral, erect, to 80 cm long, sometimes branched, many flowered; flowers 4 cm across. Sepals and petals elliptic-lanceolate acuminate, undulate, greenish with brown transverse bands. Lipblade subcordate, margin undulate, white, lilac or rose colored, unmarked. Callus on the claw, fleshly, boat-shaped, the apex bidentate. Column slender with subquadrate wings each side of stigma. G. U. Skinner discovered the species in Guatemala and sent it to Bateman, who described it in 1838 and named it Cyrtochilus bictoniense (Orchid Mex. et Guat.) Unfortunately plants of this species have been discovered by Hooker at the same time, said to have been imported from Africa, named Zygopetalum africanum. Lindley corrected this error in Bot. Reg. 1840 and settled the species in the genus odontoglossum - a mistake when taking in consideration that the flower characteristica do not correspond to the features of the type species Odontoglossum. Halbinger transferred the Odontoglossum bictoniense in 1984 to the new established genus Lemboglossum. Habitat: Terrestrial or litophytic in humid mixed forest at forest edges and embankments. Distribution: Southern Mexico, Guatemala and El Salvador at altitudes of about 1800 m to 2800 m.



Lemboglossum bictoniense



Lemboglossum rossii Lemboglossum bictoniense Lemboglossum madrense



Lemboglossum cordatum Lemboglossum apertum Lemboglossum uro-skinneri



Lemboglossum maculatum