❖Odontoglossum Alliance❖

Newsletter February 1997

Program

Odontoglossum Alliance Meeting and Lectures

7 March 1997

Santa Barbara, California

The meeting of the Odontoglossum Alliance will be held in conjunction with the Santa Barbara Orchid Show and AOS Trustees meeting to be held in Santa Barbara, 4-8 March 1997. The meeting will commence with a lunch and business meeting starting at noon. Starting at 1:30 PM four lectures will be presented. Following the lectures at 4:30 PM will be an auction of high quality and unique odontoglossum alliance material. **Please note that material sent out by the Santa Barbara International Orchid Show for registration incorrectly indicated the time of the lectures was on Saturday. Such is not the case. The entire Odontoglossum Alliance meeting, auction, luncheon and lectures is on Friday, 7 March 1997. All will be held in the Fess Parker Red Lion Inn in Santa Barbara.**

Commencing at 12:00 o'clock 7 March 1997 is the Odontoglosssum Alliance luncheon in the Santa Ynez room. During the luncheon will be a short business meeting conducted by our newly elected President, Dr. Howard Liebman.

The lecture program begins at 1:30 PM in the Sierre Madre North room of the Red Lion Inn. The room numbers for the luncheon and the lectures are also announced in your registration material for the Santa Barbara International Orchid Show.

Session Chairperson: Valerie Henderson

Valerie Henderson began growing orchids as a hobby in 1987

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and has grown at commercial greenhouses since 1990. Three years ago she was employed by The Orchid Zone, Ltd. where she manages a 20,000 square foot range with several climatic zones. In her care are the paphliopedilum and phragmipedium seedlings, paphliopedilum stud plants and complex hybrids, oncidinae, pleurothallids and a number of other genera.

She has a greenhouse at her home in Salinas, California where a diverse personal collection is grown, and continues to be active in several societies and alliance groups.

Mr. Stig Dalström. "The Enigmatic Odontoglossums - geographical variations and how to handle them."

Mr. Dalström has recently published in the AOS Bulletin a series of articles on the odontoglossum species. Stig was born in Sweden and has always been a naturalist. His interest in orchids began when discovering the native species in Sweden. Later a desire to see the tropical species resulted in travel to their native habitat.. Stig is an excellent artist and draws from nature. Seeing plants in the wild but not being able to find out what they were, created within him an ambition to learn more about them. Odontoglossums (sensu lato) were his favorites at an early stage since they were among the few plants that grew and flowered in his care.

In 1981 he established contact with Cal Dodson and Carl Luer at the Marie Selby Botanical Gardens, Sarasota, Florida. They had a special interest in the orchids of the Andes, and particular Ecuador (where Odontoglossums grow). As it happened both were looking for plant illustrators with some field experience. Stig joined the Selby Gardens and has since been associated with the Gardens and Cal and Carl.

Mr. Tom Perlite "Intergeneric Odontoglossum Hybrids -- Will it grow in Florida?

This talk will deal with Odont intergeneric hybrids, their culture, and flowering habit. Tom will give an overview of recent hybrids which provide the beauty and variety of the Odontoglossum group, but also tolerate a wider range of temperature than straight Odonts. He will also speak of the increased interest in Odontocidiums, Wilsonara, and Vuylstekearas for the pot plant trade in the US and abroad.

Tom has been in the orchid business for the last 15 years. He graduated from U.C. Berkeley with a major in Botany. During his senior year he began working at the Rod McLellan Co part time in the laboratory and the sales departments. It was then that he became interested in Orchids. Upon graduating he took a position in the Orchid department as a grower. There he became interested in Odonts, and was fortunate to work with Andy Easton who did the Odont breeding. Mr. Easton created many intergeneric hybrids among which are Odcdm. Tiger Butter and Mclna. Pagan Lovesong. After working at McLellans for 6 years Tom started his own business, Golden Gate Orchids.

Golden Gate Orchids grows a wide range of Orchids including Oncidiums, Paphs, Vandas, Calanthes, and Dendrobiums. The main focus, however, is in the cooler growing varieties of Odonts, Masdevallias and Dendrobiums. The growing facilities are approximately 40,000 square feet with 15,000 of that devoted to the boarding of clients plants, and 25,000 for production purposes.

Tom Perlite is an accredited AOS judge and exhibits plants in Orchid Shows primarily in the San Francisco area. Tom won the Grand Prix at the 1995 International Orchid Show in Osaka, Japan for Masdevallia Copper Angel. As Tom said "This was the highlight of my show experience."

John Hainsworth: "From San Diego to Vancouver", Odontoglossum Growers on the West Coast.

This is a look at how some of the well-known growers on the West Coast hybridize and grow Odontoglossums in their various micro-climates, beginning in San Diego with Bob Dugger and ending in Vancouver with Wally Thomas.

John started growing Odontoglossums in England in 1978 after purchasing plants from Mansell &

Hatcher, Ltd. He became an accredited judge in 1988 and received awards from the RHS in the 1980's and 1990's. John learned much from George Black, noted English intergenric hybridizer. He has also studied the work done in the Alliance on the West Coast. Presently John is associated with Strawberry Creek Orchids in McKinnleyville, California.

Tim Brydon: "The Odontoglossum Paintings of Nellie Roberts from 1897 to the 1950's.

Tim will discuss the career of Nellie Roberts and her paintings of 1897 to the 1950's. He will illustrate his talk with slides of the paintings and compare some of today's modern hybrids with those illustrated by Nellie Roberts. Ms. Roberts joined the RHS as a part time illustrator in 1897 and painted for more than 50 years. She had a remarkable career in illustrating and was prodigious in her work. Tim has made many trips to England to study her work.

Tim Brydon is an amateur grower specializing in the Odontoglossum Alliance. He maintains a greenhouse on the rear of his San Francisco town house. He also has growing space in a greenhouse of the old Valemar Gardens in San Francisco. He started growing in 1975 when his wife brought him an orchid plant.

Following the lectures there will be an auction of high quality and difficult to obtain Odontoglossum Alliance material. This auction has financed the expanded color pages of the newsletter and permitted us to keep the dues at $15.00 per year. We have always received generous donations of plant material of the highest quality and often most wanted. Included in this have been divisions of awarded plants, seedlings of high potential and flasks of new breeding directions. This is a real opportunity for odont lovers to obtain at reasonable prices some very fine material.

Plan to attend the Odontoglossum Alliance meeting on 7 March 1997 in Santa Barbara, California. The Santa Barbara International Orchid show and AOS Trustees meting begins on 5 March 1997 and continues through 9 March. If you have not received registration material please contact:

Dr. and Mrs. Svoboda
231 Middle Road
Santa Barbara, CA 93108

I have enclosed the registration sheet for the show and the hotel registration form.

This should be a great meeting in big Odontoglossum and other orchid country.

WANTED: AUCTION MATERIAL

The Odontoglossum Alliance holds its annual auction at the Odontoglosssum Alliance meeting being held 7 March 1997 in Santa Barbara, California. Previous auctions have raised money allowing the Alliance to hold the dues to $15.00 per year and greatly expand the color material in the Newsletter. We need contributions of high quality odontoglossum Alliance material. Divisions of fine quality, especially awarded material, seedlings of high potential or unusual crosses, re-plated flasks of similar quality, prints or books are items that provide great interest to our bidding members. If you are attending the meeting, please bring your contribution with you to the meeting. If you want to contribute, but cannot attend, send it along with a member who is attending. You may also send it to me, John Miller, at the Fess Parker Red Lion Hotel, 633 E. Cabrillo Blvd., Santa Barbara, CA 93103. I shall arrive at the hotel on 5 March 1997. If you send it ahead of that time, please ask the hotel to hold it for my arrival. But, the best part is if you can bring it yourself.

SPECTACULAR CYRTOCHILUMS
by Dr. Howard Liebman

Part I

It seems surprising that after 35 years of growing orchids and over 25 years of hybridizing within the odontoglossum alliance, that there would be a major and spectacular genus in this family of which I would have so little knowledge. Such was the case when I decided to acquire and grow Oncidium macranthum and other related oncidium species. My return to southern California reawakened an earlier interest in these remarkable orchids. This renewed interest resulted from my family's move to a residence located in a temperate, damp canyon near the ocean. In this ideal climate I discovered that I could easily grow outdoors these orchids to near perfection, Subsequently, I began to extensively research this genus and acquired an extensive collection of these plants. My subsequent research led me to the realization that Oncidium macranthum and a large group of related species constituted a separate genus, Cyrtochilum.

The Cyrtochilums have long been classified as members of the genus Oncidium. However, they were originally classified as a separate genus by Humboldt, Bonplant and Kunth in 1815 from a plant collected by Humboldt in Columbia. This original plant was named Cyrtochilum undulatum, but is probably not the same species pictured in the orchid album, plate 368. Subsequently, Reichenbach folded this genus into the Oncidium. While the full characteristics of this group of orchids continue to be debated, a growing consensus of experts believe that the Cyrtochilums do not belong in the genus Oncidium and most likely do represent a separate genus. Most European taxonomists have favored re-establishing the Cyrtochilum as a separate genus and this is reflected by its listing as a separate genus in the recently published, The Manual of Cultivated Orchid Species by Bechtel, Cribb and Launert. While there is still no clear description and enumeration of the members of the genus, it is estimated that there are 50 to 60 species in the genus Cyrtochilum, The monograph by Kraenzlin published in Das Pflanzenreich in 1922 is too full of errors to provide a reliable description of members of the genus Cyrtochilum. Possibly the combination of molecular and physical taxonomy will better elucidate the genus. The predominant habitat of the Cyrtochilums is the western slopes of the Andes extending from Venezuela through Colombia, Ecuador, Peru into northern Bolivia. Therefore, they have evolved in close proximity to the Odontoglossums and share many similar characteristics.

This article in no way attempts to fully describe or classify the members of this genus, but only to introduce the unfamiliar reader to the diversity and beauty of the Cyrtochilums. I have personally been fortunate enough to acquire 170 Cyrtochilum plants including over 30 different species and therefore, I can in many cases discuss their growth and flower characteristics from personal experience. In addition, I have now made over

fifty successful crosses with Cyrtochilums and I have acquired an extensive knowledge of their breeding characteristics.

Cyrtochilum (Oncidium) macranthum is the best known species in this genus and without a doubt the most frequently cultivated member of the genus. The plant is found thoughout the western provinces of Ecuador and northern Peru. At the turn of the century, some plants were also collected in southern Colombia, but I have been told that macranthum is no longer seen in that country. While Ecuadorian growers and collectors talk about many so called special populations of this species, there are probably only two or three separate forms. Many commercial growers offer the variety nanum or short spiked form. The first nanum forms were shown by Charlesworth & Company to the RHS Orchid Committee in 1893. The description from the Orchid Review stated "Messrs. Charlesworth sent fine plants of Oncidium macranthum, some of which bore large flowers on spikes only a few inches to one foot in height". This was a uniform characteristic of the plants in bloom. However, most of the imported nanum forms seen today have medium length inflorescences which increase in size as the size of the plant increases, In reality, the inflorescence length of Cyrtochilum macrantum varies in all regional populations from 1 to 5 meters. I believe that the color properties of individual flowers better define unique populations of this species, The "type" form of the species has larger yellow petals with olive-brown sepals. The lip and central ridge of the petals are marked with various amount of purple. The finest forms, termed the hastiferum variety, are larger flowers with clear bright colors and sepals of a rich mahogany. I have used this form extensively in my own hybridizing program.

Two other distinct color forms of macranthum include the splendens variety with petals and sepals which are clear yellow and only a small amount of purple on the lip. The second color form is the williamsianum variety, notable for a large bloch of purple brown at the base of the petals. The splendens variety is found thoughout the range of C. macranthum and exists in all stem lengths. The williamsianum variety is much more controversial. Walter Teague wrote a very nice article in the September 1977 AOS Bulletin arguing that this form of C. macranthum is really a natural hybrids between C. macranthum and C. monachicum. Although his arguments were convincing, the recent blooming of three different crosses between Cyrtochilum macranthum and monachicum call into question this hypothesis. My own guess is that this is a true unnamed species; however, only a selfing or sibling cross of these plants will determine if this is true. In addition, the recent blooming of a similar Cyrtochilum collected in Peru by Steve and Julie Beckendorf of Berkeley, California demonstrate the

existence of these plants out of the range of C. monachicum, making it even more likely that they are not a natural hybrid. A final comment regarding C. macranthum is that there are rare flowers of exceptional form with full, round conformation. These represent what most judges would consider a perfectly balanced flower. The vast majority of jungle collected plants are of poor shape, although it is hard to find a completely unattractive C. macranthum. However, I have produced a number of sibling crosses using well formed hastiferum type of flowers and have made these available to several commercial growers. Hopefully the availability of superior nursery raised stock of this outstanding species will discourage the continued sale of jungle collected plants.

Cyrtochilum serratum is one of the most vigorous species in the group and frequently seen in amateur collections. It has the interesting tendency to form plantlets from its inflorescence, similar to Phalaenopsis. This habit of forming plants on the inflorescence is also shared by C. annular, C. lamelligerum and C. falcipetalum. All three of these species share with C. serratum a flower form with the petals locking forward. However, the four species are quite distinct in other floral characteristics. The range of Cyrtochilum serratum and the closely related C.lamelligerum is limited to Ecuador. Carl Dodson, in an article written in the AOS Bulletin (Vol.27:107-110, 1959), expressed the opinion that C. serratum belongs to a swarm of varying forms of the species merging into C. lamelligerum. Cyrtochilum annular has a range including Colombia, northern Ecuador and western Venezuela. C. annular is the largest of these four species. Cyrtochilum falcipetalum has the broadest range of any Cyrtochilum being found in Venezuela, where it was first described, Colombia, Ecuador and Peru. The flowers of the Peruvian form tend to be smaller than those collected in Venezuela, but otherwise are similar in form and color.which is typified which is the all yellow form with only a little bit of purple splash on the lip.

Three interesting and closely related species are Cyrtochilm halteratum, tetracopis and gargantua. The growth habit of these species is similar to C. macranthum and the flowers of these species have a form similar to macranthum. Cyrtochilum halteratum is a species found in northern Ecuador and Colombia. The better forms of this species are superb and I believe that this plant ranks among the most beautiful of all orchid species. The flowers are golden brown to honey-colored with a waxy texture and appear to glow in sunlight. Unlike C. macranthum, the flowers of halteratum have petals which are smaller than the sepals. Many plants of C. halteratum have been grown under the species name of C. chrystodipterum and at least one hybrid has been registered under this species name which was probably made with C. halteratum. Cyrtochilum tetracopis is found in

Venezuela and northern Ecuador. I have only seen line drawings of the species and do not know of any plants in cultivation. Cyrtochilum gargantua is from Peru and several plants were imported by Bergstrom's Orchids in the late 1980's. This beautiful species differs from halteraturum in that the lip broadens toward the apex. Also, most forms of the species have sepals with a more intense dark brown color than halteratum. This year I was finally able to make an sibling cross of Cyrtochilum gargantua.

One of the most popular Cyrtochilums used by European orchid hybridizers at the turn of the centur was Cyrtochilm monachicum. The species is limited to Ecuador, although older references also claim that plants were found in Peru. However, I am unaware of any plants being collected in Peru in recent years. This species was frequently grown in Europe, but appeared to have been lost from cultivation by the 1930's. In recent years, many plants have been imported from Ecuador and a number of nursery raised monachicum outcrosses are now available. The species is easy to bloom, but has a less robust nature than C. macranthum. However, nursery raised seedlings appear easier to grow. The flowers of C. monachicum are 5 to 7 cm in size, with round sepals and petals, and a dark purple lip which recurves at the apex.The flower color ranges from light chestnut brown to a rare darker form with purples tints on the medial aspect of the petals. However, I have seen little variation in most of the imported cultivars with most being the light chestnut brow color with minimal purple coloration on the petals. However, it is interesting to note that many of the early monachicum hybrids are distinguished by their richness of color.

OEditors Note: This material of Dr. Howard Liebman's is essentially his lecture delivered at the April 1996 Odontoglossum Alliance meeting in Vancouver. This is a multiple part article and more will be in future newsletters.

FIRST ROBERT B. DUGGER AWARD GRANTED

The first award for the Robert B. Dugger Odontoglossum AOS Trophy has been made to Terry and Doug Kennedy for their plant of Odontocidium Cherry Fudge var. 'Swiss Mocha'. This plant was awarded an Award of Merit by the AOS with a score of 83 points. It received this award at the Great Lakes Regional Supplemental Monthly Judging, Toronto, Ontario, Canada on 11 March 1995.

The process for determining the AOS Trophy award is for each judging center to submit a nomination for each AOS trophy category to the Committee on Awards. At the fall AOS Trustees meeting the committee makes the final determination from the slate of nominees. The award granted is a certificate and a monetary award. The monetary award is based upon the earned interest from the principal of the endowment for trophy. The Robert B. Dugger Odontoglossum Trophy was established in 1995 with the endowment fund coming from contributions from the members of the Odontoglossum Alliance and from the treasury of the Odontoglossum Alliance. Principal for the Odontoglossum Alliance funds was obtained mainly from the proceeds of the annual auction conducted by the Odontoglossum Alliance at its annual meeting. The amount of the monetary award was $188.00. The Odontoglossum Alliance is proud to have established this award in Bob Dugger's name. In the February 1997 Orchids, published by the AOS

is an article on this award.

The plant, Odontocidium Cherry Fudge 'Swiss Mocha' is a cross of Odm. Summit x Onc. leucochilum. The owners Terry and Doug Kennedy live at 15 Wilmac Ct., Gormley, Ontario, Canada. A photograph of the flower is shown on page 24 of this newsletter.

The plant description is: natural spread 5.4 cm, natural spread vertical 6.0 cm, dorsal sepal width 2.0 cm, dorsal sepal length 2.5 cm, petal width 1.8 cm, petal length 2.5 cm, lateral sepal width 1.8 cm, lateral sepal length 2.8 cm, lip width 3.0 cm, and lip length 3.2 cm. Nine well-proportioned flowers and seven buds well presented on one 77 cm inflorescence; flowers uniform dark cordovan with brick red lip; sepals and petals with yellow-green centrally on the reverse; lip with white on the back of the isthmus; substance good; texture varnished.

Editors Note: I have seen a number of plants of this cross, but not this particular plant. These plants are very striking and the cross is uniformly good in all examples I have seen. Joe Polermo of 'The Orchid Man' had the original cross. In the last three years at the Greater New York Orchid Show there have been a number of examples of the cross in the show. The flower spikes hold themselves upright and display well. There have been a number of awards made to this cross. It is a strong grower and I have seen some large pseudo bulbs on some very vigorous plants.

Congratulations to Terry and Doug Kennedy on being the first recipients of the AOS Trophy - Robert B. Dugger Odontoglossum Trophy.

Editors Note: I am publishing the first of six articles by Stig Dalström on "**Enigmatic Odontoglossums**". This material was published in the AOS Bulletins starting in November 1995. We have graciously received permission from both the author, Stig Dalström and the American Orchid Society. Mr. Dalström is one of our speakers at the upcoming meeting of the Odontoglossum Alliance to be held March 7, 1997 in Santa Barbara. Elsewhere in this newsletter is the biographical description of the author. This series promises to be an interesting addition to our newsletter policy of adding to the knowledge of Odontoglossums. The Alliance is grateful to both Stig and the AOS.

Enigmatic Odontoglossums
Part I: The Epidendroides Complex
by Stig Dalström

Since Odontoglossum was founded and the first species described, there has been debate concerning what constitutes an *Odontntoglossum*. Taxonomists continue to discuss which species should be kept in this genus and which should be placed in other genera.

Humboldt, Bonpland and Knuth described the first species, *Odontoglossum epidendroides*, on pages 350 and 351 in their *Nova Genera et Species Plantarum*, published in 1815. The plant, illustrated by Turpin, can be seen in plate 85. The actual plant was collected in what today is northern Peru, somewhere between the city of Jaen and the Amazon River. The altitude was stated to be "240 hex," (Hexapodium), which is approximately 1,420 feet and too low (warm) for an *Odontoglossum*. Unless there are some extraordinary climatic conditions at the locality that cools the Amazonian heat, I believe that the altitude is incorrect.

The type specimen is today located at the National Museum of Natural History in Paris. A photograph of it is on page 9 in the latest monographic treatment of the genus (Bockemühl, 1989). Although it is the type of the genus itself, as well as for the species, it has contributed substantially to the confusion that still exists. A foray into the taxonomic mysteries of this genus begins with the *Odontoglossum epidendroides* complex.

The drawing of the type specimen appears somewhat stylized. Being a botanical illustrator myself, I can understand how the artist has approached the task. It appears safe to assume that Turpin really used the here-cited type specimen for his drawing as a voucher plant. They show great similarities in the number of flowers, shape and size, among other details. Unfortunately, the finer details of the flowers are unclear. Furthermore, the drawing of the habit shows an inflorescence emerging from a new growth, which is an atypical *Odontoglossum* trait. Maybe Turpin drew the habit from the collectors' information because no vegetative parts can be seen on the type herbarium specimen.

Failure to provide details of the flowers in the illustration led to misinterpretations by other botanists. Lindley cited a specimen from Colombia, which he believed was *Odontoglosssum epidendroides*, in his *Folia Orchidacea* (Lindley 1852), but it was a new and undescribed species, Reichenbach described it as *Odm. lindleyanum* two years later. Although vegetatively similar, these two species demonstrate a rather different flower morphology.

Because Lindley misinterpreted the type of *Odm. epidendroides*, it is understandable that he failed to recognize another specimen, this time from Peru and from a collector named Mathews. Lindley described this species as *Odontoglossum lacerum* in

his *Sertum Orchidaceum,* subt. XXV, 1838. Comparing the types of these two species reveals they represent the same taxon and should be synonymous. This becomes more evident when studying the distribution maps in Bockemühl's book (1989). There is a collection of *Odontoglossum lacerum,* represented by a red dot on the map (page 80), that correlates exactly with the type collection of *Odm. epidendroides* (the lowermost red dot on page 67). Collections of live plants from southern Ecuador support this conclusion.

Bockemühl, however, is convinced that *Odm. epidendroides* is identical with an *Odontoglossum* that is fairly common on the eastern slopes of the Andes in northeastern Ecuador. Indeed, these two *Odontoglossum* entities are so similar that they could be lumped into the same taxon, being separated only at subspecific level. The problem is that Bockemühl, and later authors who cite her, still accept *Odm. lacerum* as a distinct and valid name and species.

Bockemühl separates her "epidendroides" (northeastern Ecuador) from the Colombian form of the same species, which was described as *Odm. spectatissimum* by Lindley (and later as *Odm. triumphans* by Reichenbach). After having examined and drawn a number of different collections representing both of these taxa under microscope, I cannot see any reason that they should be treated as different species. All the characteristics mentioned by Bockemühl in her treatment (1989, page 712) that would distinguish these two species have proven useless or incorrect.

Some differences are evident among plants from different locales. But the more material that is studied, the more intermediate forms can be expected to be seen. When one form gradually turns into another, throughout the geographical distribution, it is questionable and confusing to treat them as distinct species. They never occur together (as different species), since if they did, they would most likely cross pollinate, blend and look similar.

Plants belonging to the *Odm. epidendroides* complex are geographically widespread. They occur on the eastern slopes of the Andes from Bolivia throughout Peru and Ecuador. In Colombia, they are distributed along both eastern and central cordillera (Bockemühl, 1989) and reach the western parts of Venezuela. Throughout the whole range, several names have been applied to the geographical forms. In Bolivia, there is *Odm. subligerum* Rchb.f., which reaches into southern Peru (the type). Then there is *Odm. epidendroides* H.B.K. (also known as *Odm. lacerum* Lindl.), a species that extends into southern Ecuador and can be found south of the mountain range that constitutes the border between the provinces of Loja and Zamora Chinchipe. North of this range is *Odm. kegeljanii* Morren. This species is extremely similar to *Odm. epidendroides* and differs in minor details on the lip only. Apparently, Odm. kegeljanii occurs in two forms; one is substantially larger with a longer column, and usually of a brighter color. Whether these two forms are geographically isolated is uncertain, but indications supporting this exist.

At the northern limit of the known distribution for *Odm. kegeljanii* we start finding *Odm. spectatissimum* Lindl. (Bockemühl's "epidendroides"). This species is as variable as any of the others and can be found from central Ecuador up along the eastern slopes of the Andes into Colombia and Venezuela. There is a tendency to produce larger, showy flowers here and there in this northern part of its distribution. This may be due to occasional inbreeding from nearby species, such as *Odm. crispum* Lindl. and *Odm. luteopurpureum* Lindl. or possibly through spontaneous local genetic changes. But basically it is the same flower. The Venezuelan form illustrated in *Orchids of Venezuela* (the filed guide) by Dunsterville and Garay, (on page 637) is the form as it looks in Ecuador and much of Colombia. The illustration also shows some of the variability of the lip. On page 627 is a form identified as *Odm. kegeljanii*. Studying the shape of the column as it is drawn in the illustration, it looks different somehow from the *Odm. spectatissimum* on page 637. The lip seems to be free from the base of the column and the column wings appear lacking. Since the Dunsterville alcohol specimen collection is located at the Marie Selby Botanical Gardens (SEL), I redrew his *Odontoglossum* specimen and found that these particular details of the flower are misrepresented on the drawing. The lip *is* fused just as for the other forms and the column wings *are* just as developed and present as well. The illustrator might have picked a particularly bad flower and I picked a better one from the same jar. Considering the difference in coloration, it really means nothing in this case because both color forms (with few or many spots) can be seen in most populations of this entity.

Within every species mentioned here we see tremendous variability in characteristics - general shape, size, color and markings, number of flowers per inflorescence, shape and size of callosities among others. These traits can also change from one year to another on the same plant as well as between flowers on the same inflorescence, suggesting these characteristics are unreliable and unimportant taxonomically.

My interpretation on this *Odm epidendroides* complex is that we are dealing with the same species throughout the whole area, possibly with the exception of *Odm. subuligerum* (What Bockemühl refers to as this species in her book [pages 108-111] is a plant that belongs to another complex and is not comparable with the true *Odm. subuligerum*; it will be treated separately.)

However the differences seen among geographical forms of *Odm. epidendroides* justify maintaining these taxa at the subspecific level.

In their natural habitats, plants on this complex grow as epiphytes on mossy trunks and branches. They also grow as lithophytes on rocks or as terrestrials along roadcuts and previous landslides at altitudes from 5,580 feet up to 9,840 feet. To flower, they require some quality light - more than phalaenopsis but less than cattleyas. What is more important, however, is good air circulation and cooler night temperatures with high humidity. Water and feed odontoglossum plants frequently, but allow the medium to dry somewhat because their roots will not tolerate being wet constantly. They can be grown under similar conditions year round and need no definite resting period.

Members of the Odm. epidendroides complex are relatively easy to cultivate provided cooler night temperatures can be

maintained. The worst pest is false spider mite, which can be controlled by raising the humidity or spraying with a proper substance. There are a number of nontoxic gelatine emulsions on the market today that seem to be effective, but must be applied regularly.[]

References

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--.1852. *Fol Orch. Odontog.* 19. No. 55 (Description of *O. spectatissimum* Lindl.)
Reichenbach, G.H. 1854. *Bonplandia* ii. 99 (Description of *O. lindleyanum* Rehb.f. and Warsz.)
--.1877. *Linnaea*, xli, 27. (Description of *O. subligerum* Rchb.f.)

(This series of *Odontoglossum* species will be continued in future issues of the Odontoglossum Alliance Newsletter. -- Editor)

Trekking Part IV

Bob Hamilton

Guayaquil to Loja

I was glad to leave Guayaquil; our mood was upbeat. The five of us plus guest passenger were split into two groups between two Chevrolet Troopers (Izusu Troopers become Chevrolet Troopers in Ecuador). Moises Behar, John Leathers and our young Ecuadorian student guest were in one Trooper while Walter Teague, Steve Beckendorf and I were in other; the lead car. Our destination was the city of Loja, a provincial city in the province of Loja, one of the three southern provinces of Ecuador. Loja is a small city, perhaps 100,000 inhabitants. It is a college town with two universities, a music conservatory and a law school.

The student we were giving a ride to was writing his college theses on Cyrtochilum loxense, an magnificent plant which is close to but does not wholly fit in the genus Cyrtochilum. This young man was taking the cross section of Cyrt. loxense's mountain habitat and inventorying the species. He mentioned the plant was now extremely rare and getting rarer due to habitat destruction and collecting, both for export and for native decoration.

We headed toward Loja beginning at sea level. The route began on good, straight roads which passed for a couple of hours. Shortly be before beginning our climb (you go few places in Ecuador without eventually steeply climbing or falling) we encountered a semaphore across the road. Military blockades that occur more and more frequently as one approaches Peru. Paperwork and vehicle registration get checked and you get looked over. Walter, being Ecuadorian and with lots of travel experience cautioned to stop if we had to but to try and just roll on through.

Perhaps my anxiety or perhaps our neophyte status alerted the guards (perhaps it was coincidence) and we were stopped. All of us out of the cars, out with the paperwork, the baggage and our passports. Here we were, hot and in the middle of banana plantations being questioned by Ecuador's military. I should add that the banana plantations were not limited to this military barricade. We had spent hours driving through banana plantation. Candidly, a walk through the banana plants is no more interesting than a drive! Seen one, seen 'em all

Clearly, Walter knew what we were in for. A long stop, an inspection of our belongings, our paperwork, our bodies and then lots of questions. Eventually, without any problem we were allowed to proceed. Walter explained, "these are young recruits, they are bored. Running a bunch of foreign travelers through their gauntlet is entertainment for them, a break in the days ritual". After a fair delay we were on our way (once they got bored). Making us unpack was all in a good days fun for these young men.

We planned a stop on the way from Guayaquil to Loja. We had a tip that there was an interesting collecting site on the way. Common to all destinations in Ecuador is up and down. You seldom travel at the same altitude for long. An interesting "up" place along the way was a television antenna. Antennas are built on the highest peaks surrounding populated areas. Because these peaks rise sharply they are not desirable for habitation and native forests can be found. In addition, these peaks are usually at elevations greater than 2000 meters, just the kind of area ones seeks for odonts and other cool growing species. Antennas also have access roads.

We followed our maps and the directions provided us to the antenna. This would be a diversion from the normal route from Guayaquil to Loja. As is common in Ecuador there were ambiguities in the map. Fortunately, we had our young traveling companion with us and he was confident he could guide us to the correct location. The diversion to the antenna took us well out of our way and we were anxious with anticipation as we slowly wound our way towards the top. What was a bleak road only became bleaker as we climbed in altitude. The final accent could not be done with our four wheel drive vehicles. We got out and walked the final kilometer.

As would have it, we were too late for this areas. The small amount of forest that remained near the summit was smoldering. It was burning to add enough potassium to the soil so crops like corn or beans could be produced. There was one orchid left in this area, a maxillaria species. It was not long for this world! As in often the case when following a road to its end, collecting orchids is more rescuing them from the forest than some kind of pillage. The forest is not forever and in developing countries it is not for long.

The diversion to this antenna was not fruitless. From the summit of this TV antenna we got a magnificent view of the Western Cordillera of the Andes. A sea of fog was sweeping in from the Pacific. There is no more magnificent view on this earth than that from the high Andes!

We droned on toward Loja. The country side was becoming increasingly verdant. The drive from Quayaquil to Loja takes a long, full day. Loja, at 2250 meters is close to the Oriente, the most southeast province of Ecuador which boarders Peru. In recent years significant new masdevallia species have been discovered in the Orient. Historically, Loja figures in the discovery of a significant pharmaceutical. According to local stories, the Countess of Chichon, wife of an early Peruvian viceroy was dying of malaria. A Franciscan monk administered a native concoction made from the bark of a tree which miraculously cured her. This bark contained the alkaloid quinine. The tree was named in her honor, the chinchona tree.

As dusk descended we entered Loja. Our guest departed, grateful for the ride. Familiar with Loja, Walter Teague located us in a hotel. John, Steve and I went out for walk while Moises and Walter relaxed in the lobby of the hotel. The three of us were hungry and we found a restaurant with great fried chicken, a dish we had transcended for health reasons in the US. We were hungry and chicken could not have been prepared better! We also were the center of attention.

Off to bed after an uneventful and brief visit to Loja. We needed the rest because the following day would prove to be one of the most interesting of our trip. We would be taking the road from Loja to Zamora. On this trip I would learn why Loja was referred to by Alexander von Humboldt as "the garden of Ecuador". Walter Teague also had a surprise for us!

Editors Note:

Mr. James Rassmann kindly sent me a thoughtful reply to some of the remarks made by Philip Altmann in his talk to the Odontoglossum Alliance meeting in Vancouver, 1996. Philips paper was printed in the last (November 1996) newsletter along with Jim Rassmann's reply. However due to transmission errors in my receiving his response along with some of my own typing errors, Jim's response contained some semantic errors. I apologize to Jim and our readers for these errors. So I , in attempting to make amends, am printing his reply again, this time, I hope, correctly.

Dear John,

I attended the Odontoglossum Alliance Meeting in Vancouver last week and greatly enjoyed the presentations. I was particularly excited by Philip Altmann's lecture, "Odm nobile syn. pescatori - is it for real?" The idea of a small flowering Odm. with branching spikes and many flowers is very appealing and, after seeing his slides, regret that I don't have any as yet. By the time I was able to get to him he was sold out.

Mr. Altmann' recent editorial in the Odontoglossum Alliance Newsletter, "Odonts' - Who's Limiting Us", coupled with several of the comments he made during his presentation in Vancouver deserve a reply from the judging community. I would like to respond and hope other judges do as well.

First and foremost, Mr. Altmann claims that for commercial reasons hybridizers have concentrated their efforts in lines of breeding using Odm. crispum in order to maximize for size and shape. These efforts have all but eliminated the influence of the smaller and often more star shaped species and hybrids. While this is true his reasoning as to how it came about may not be correct. To paraphrase Mr. Altmann, growers limit their breeding to what the judges want to see because, "...everyone likes winning" and only those lines of breeding which produce awards also produce financial rewards. While this may be so, it may be putting the cart before the horse. The truth is most people simply like larger, fuller flowers and people buy what they like. The vast majority of the orchid growing public does not exhibit their plants for judging and probably couldn't care less about an AOS award. But, as most commercial growers will agree its a great sales tool. Do we, as Mr. Altmann says, "...limit ourselves to what we believe others want to see?" If, by "we", he means commercial hybridizers I must agree with him completely. Commercial hybridizers must limit their production to the "sure thing" that the public is asking for not necessarily what the judges award.

Do species other than Odm. crispum and their hybrids deserve awards? Of course they do. The intrinsic beauty of Odm. crinitum, harryanum, trimphans and other species is undeniable. Their use as parents may well have created many beautiful things that were ignored or discarded in the earlier days of Odm. hybridizing when compared to the size and flamboyance of crispum and its progeny. However, after seeing Mr. Altmann's work with Odm. nobile, I hope some divergent breeding lines come to the judging bench. His concern over rejection by the judges because of reduced flower size and failure to identify species like nobile correctly is out of proportion to the problem. Lets not scream until we've been gored. I haven't seen any yet so give me a chance. In any event flower size is only ten points out of the total score.

Does the judging community make mistakes in judging Odontoglossums? From my perspective the answer is frequently yes. The principle reason I feel is that we don't know anywhere near enough about them to give them the fair shake they deserve. Coming from the hot, dry Pacific South Region (read Los Angles) I have been exposed to so few over the years that I am just beginning to get a grasp on the variety of types, shapes and colors possible. In a perfect world I would have learned everything about them through training and study. But that just doesn't happen to anywhere near the extent it should. We learn by seeing and we just don't see enough to become conversant, much less expert, except of course some of us that live and grow in cool Rustic Canyon.

So, now that I am here in the equally cool Pacific Northwest, where are the multitudes of Odonts that I just knew I would see at judging? They are appearing in very small numbers and I can't accept that its because the gazillions of Odont growers are so fed up with the short shift that the rotten judges have been giving their plants. Lets face it folks, its because so few are being grown compared to other genera and what is being grown, as Mr. Altmann so correctly pointed out in his presentation, often has problems. Genetic difficulties in the form of aneuploidy, poor growth and suicidal tendencies are far more common in Odonts than we would like and this too can't be ignored in determining why more are not awarded.

Several of Mr. Altmann's points are well taken and certainly our established judging criteria are far from perfect, but, give the judges fine material to work with and the awards will follow. Just bring them to us.

Sincerely,
s) Jim Rassmann

World Orchid Conference Planning Committee

The 1999 World Orchid Conference will be held in Vancouver, British Columbia, Canada 23 April - 2 May 1999. The Odontoglossum Alliances of the World are planning a full day's program and possibly an evening dinner. Ron Maunder of the New Zealand Odontoglossum Alliance, Les Jefferies of the British Odontoglossum Alliance and I have joined to form the planning committee for this full day of Odontoglossum Alliance activities. As the committee makes progress I will be reporting in subsequent newsletters. I can report now that we held the American Odontoglossum Alliance meeting in Vancouver in 1996 and it was a great success. Vancouver and British Columbia is a great place to visit and the end of April and early May has beautiful weather. The Odontoglossum displays were outstanding and there were many suppliers of Odontoglossum Alliance material in the sales area. Plant exporting out of Canada was easy and convenient and importing into the US was equally easy.

Mark your calendars and plan to attend.

ODONTOGLOSSUM ALLIANCE MATERIAL

SOURCES OF SUPPLY

From time to time I have been asked by members of the Odontoglossum Alliance ※Where can I find Odontoglossum alliance plants?※ About once a year I print my own list of sources of supply. I invite any supplier of Odontoglossum alliance material who would like to be added to this list, please tell me - John Miller - Editor.

Plested Orchids
38 Florence Road, Collegetown
Cambealey, GU25 4OD,England

Chieri Orchids
2913 N. 9th Street
Tacoma, WA 98406

Dugger's Hybrids
762 North Granados
Solana Beach, CA 92075

Cal-Orchids
1251 Orchid Drive Ext.
Santa Barbara, CA 93111

Everglade Orchids
1101 Tabit Road
Belle Glade, FL 33430

Keith Andrews Orchids Ltd
Plush, Dorchester
Dorset, DT2 7RH, England

A&P Orchids
Peters Road
Swansea, MA 02777

Burnham Nurseries Ltd.
Forches Cross Newton Abbot
Devon, TQ12 6PZ, England

Strawberry Creek Orchids
4373 Central Avenue
McKinleyville, CA 94014

Orchids Royale
2360 Foothill Road
Santa Barbara, CA 93115

Mansell & Hatcher Ltd
Cragg Wood Nurseries
Rawdon Leeds, LS19 6LQ
England

McBeans Orchids
Cooksbridge, Lewes
Sussex, BN8 4PR, England

Charles Island Gardens
P.O. Box 91471
West Vancouver, B.C.
Canada, V7V 3P2

Golden Gate Orchids
225 Velasco Avenue
San Francisco, CA 94134

Starbek Farms
7305 Shepard Mesa Road
Carpenteria, CA 93013

Colomborquideas
Calle 11A No. 43B-68
A.A. 50494
Medellin, Colombia, S.A.

Sunset Orchids
2709 Hillside Drive
Burlingame, CA 94010

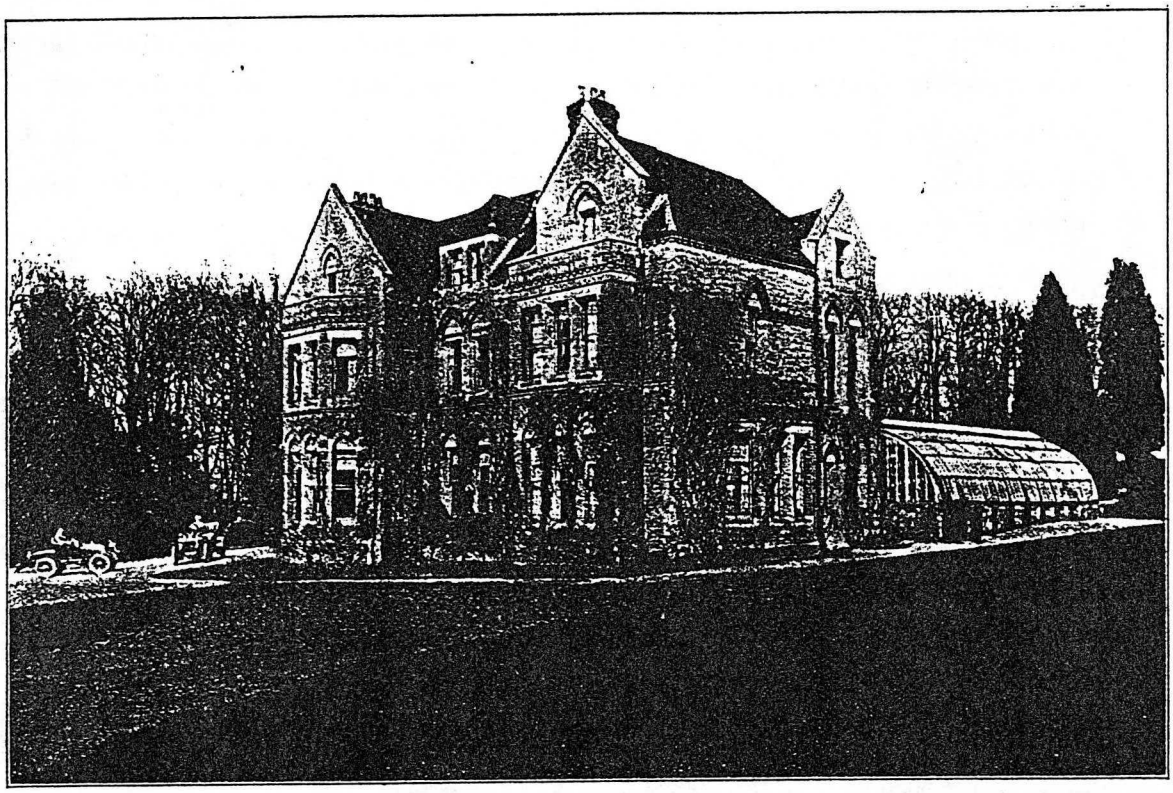
The Exotic Plant Company
Garden Cottage, The Grange
Crawley Down, West Sussex
RH10 4LB, England

Starbek Farms
7305 Shepard Mesa Road
Carpenteria, CA 93013

The Orchid Man
P.O. Box 90
Schaghticoke, NY 12154

Rio Verde Orchids
Apartado Postal No. 69
Valle de Bravo, Mexico 51300

Rolfe Horticulture
General Delivery
MTN. View, HI 96771



Rosefield, Sevenoaks, Kent.
(Photo by H. Essenhigh Corke, F.R.P.S.)

The Rosefield Collection, Sevenoaks, Kent.

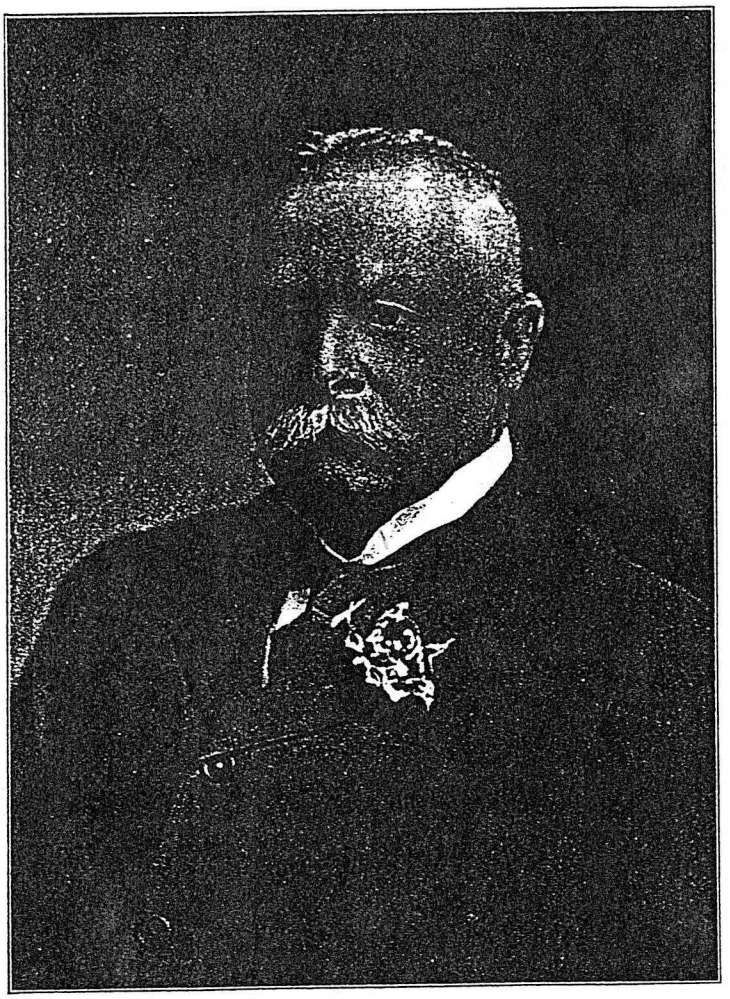
SITUATED in one of the southern English counties, and thus being in an excellent growing atmosphere, this collection of Orchids has for more than thirty years attracted the attention of all of those who have been interested in this fascinating art.

The earliest date to record is December 23rd, 1880, for on this day the first imported Odontoglossums were purchased and, on account of the Orchid-house being still unfinished, they were kept in a cellar for more than six weeks, the temperature during this time being maintained by means of gas burners. One of these, a luteopurpureum "No. 1," has produced a spike of 53 flowers, and was in bloom when we visited Rosefield. Two Odontoglossum crispums, purchased in February, 1881, and the first spotted one to flower, which appeared in February, 1882, are still alive and in the collection. Although many other plants flowered it was not until the year 1887 that the first really good variety made its appearance, this large white variety being named Mrs. de B. Crawshay.

From an early date Mr. Crawshay studied these plants with intense interest, even the minutest details attracting his keen observation; the significance of the shape of any particular organ, the importance of colour, or the inheritance of special characters in the now numerous class of hybrids have all been recorded for the special purpose of advancing the knowledge of these marvellous plants. Sir Humphrey Davy once stated: "To me there never has been a higher source of earthly honour or distinction than that connected with advances in science," and no sequence of words is more applicable to the owner of this collection, for it has ever been

the wish of Mr. Crawshay to carry out his numerous experiments and investigations with the express purpose of scientific research.

Elected a member of the Orchid Committee of the Royal Horticultural Society as long ago as January, 1890, he has undoubtedly proved to have been one of its most valuable members, and an interesting document is a list of the dates of every attendance he has made during the many years which he has devoted to the welfare of the Society.



de Barri Crawshay, Esq.
(Photo by H. Essenhigh Corke, F.R.P.S.)

All the finest and rarest flowers are dried and pinned on thin boards which are kept in large cabinets. This collection, numbering about 2,000 specimens, alone forms an object worthy of a visit to Rosefield. The oldest specimen, which is still in perfect order, is dated 1884, and as each additional one is added it is placed in its correct section. Thus all the finest white varieties may be compared one with another, the merits of the blotched forms may be examined in several rows of these noble flowers, hybrids take up a considerable space, and, in the case of the best varieties, specimens are kept of almost each year's flowering, in many instances forming a unique and educative series. This collection, reminding one sometimes of a beautiful butterfly cabinet, also embraces specimens from almost every noted collection. More than 250 paintings prove of great value in further showing the good qualities and rich colouring of the individual specimens.

The first house entered, known as No. 3, contains a number of imported crispums, mostly unflowered, several Cymbidiums, including the hybrid between C. giganteum and C. Tracyanum known as C. Crawshayana, and a strong flowering plant of Odontoglossum Hallii, interesting on account of the fact that it is one of the original plants of the first importation of this species sent in 1864 to Messrs. Veitch and purchased at the disposal of the Barcote (Faringdon, Berks) collection in December, 1897.

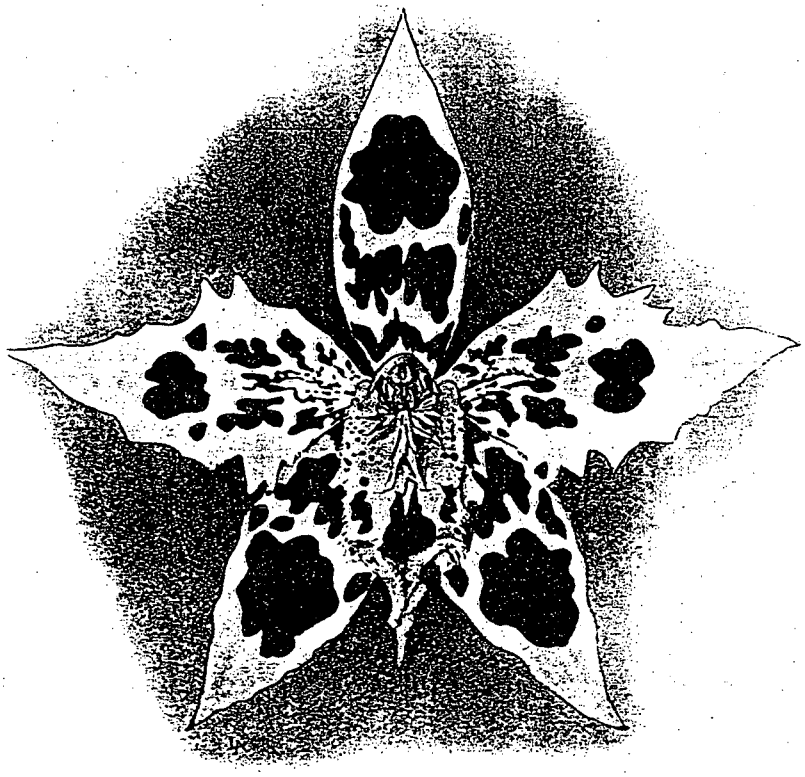
The Lælia anceps house contains probably the finest collection in the country of these graceful flowering plants, which create such a welcome display of bloom from Christmas to the end of February. Not only are large specimens to be seen on the central staging, but hanging from all parts of the roof are numerous strong and healthy plants. Lælia anceps Chamberlainiana is still the best of the coloured forms,

although some varieties run it rather close, other fine varieties being Crawshayana, Mrs. de B. Crawshay, Scottiana, and rosefieldiensis. In the white section the varieties are equally numerous, probably the largest ever seen being L. a. Schröderiana Crawshayana. Some other noted varieties are Dawsonii, which obtained a First-class Certificate as long ago as 1865, Sanderiana, and Stella.

In the Hollidayana section of white anceps are to be found the superb L.a.H. Theodora, which Mr. Crawshay regards as being the finest of all, and L.a.H. Crawshayana, a magnificent form which received a First-class Certificate in January, 1902, two other varieties in this section being waddoniensis and rosefieldiensis. A piece of L. a. Hillyana is part of the original plant for which Sir Trevor Lawrence paid 200 guineas. It is worthy of note that Lælia Schröderæ is regarded by Mr. Crawshay as a distinct species, and not as a variety of Lælia anceps. A small plant of Lælia anceps Queen of the Earth is said to be the finest of all the coloured varieties; the whole flower is a deep purple colour, heavily feathered at the tips of the segments.

In this house may also be seen Odontoglossum citrosmum rosefieldiense, a buff-coloured variety with a rosy lip, several plants of Dendrobium Brymerianum, all good varieties, and which, in this comparatively low temperature, make much stouter and shorter bulbs, and a good plant of Maxillaria Sanderiana purchased by Sir Fred. Wigan at the disposal of the Downside collection in July, 1888.

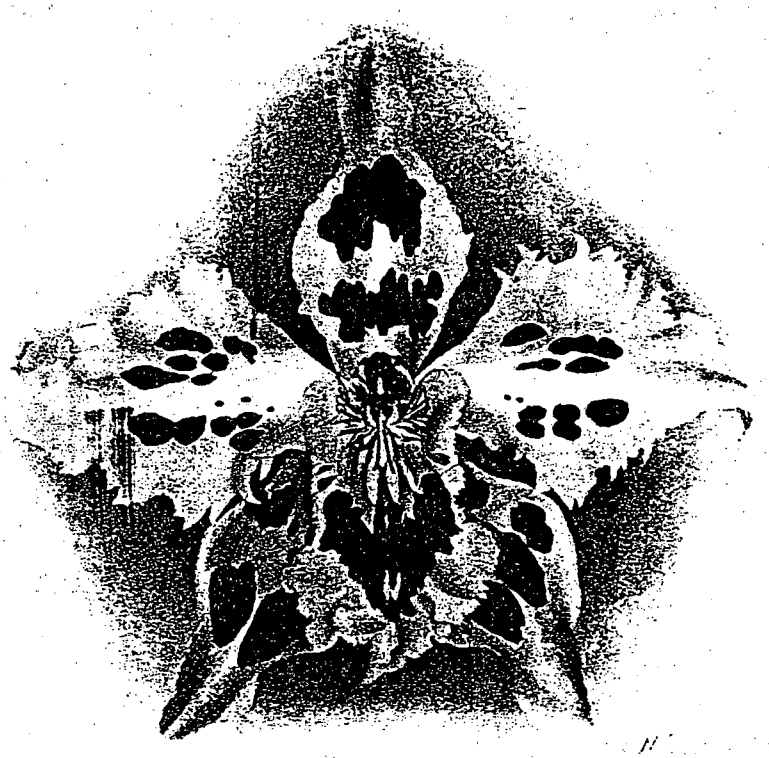
The seedling house contains an immense number of remarkable and most interesting crosses. It is, of course, impossible to mention more than a few of them, but the following, selected at random, will give a good idea of what is likely to be produced during the next few years. A small pan contains a number of seedlings resulting from Odontoglossum Rossii rubescens × O. illustre; another one a nice batch of O. Hunnewellianum × crispo-Harryanum; there are several sturdy little plants of O. crispum Raymond Crawshay crossed with a solid blotched O. ardentissimum. This last-mentioned cross should produce some fine things, as the mother plant has proved itself to be an excellent breeder, O. Cervantesii × Cochlioda Noezliana, and O. crispum roseum × luteopurpureum Vuylstekeanum. Another promising seedling is O. Lambeauianum, raised by crossing O. Rolfeæ with O. crispum



Odontoglossum Hallio-crispum, the first hybrid raised at Rosefield.
From a painting by Miss Louise Allingham.

Raymond Crawshay; and O. Uro-Skinneri × Zygopetalum Mackayi. is interesting on account of the similarity of the two species, and there seems the probability that a genuine hybrid will result in this case.

The Odontiodas include Charlesworthii Theodora (F. C. C., May 3, 1910), Devossiana, gattonensis, Seuenacca (C. Noezliana × Hunnewellianum), rosefieldiensis, bella, and Bradshawiæ, the latter cross having been made with six different crispums in order to prove what effect, if any, a variety of crispum has in the making of this hybrid. Suspended from the roof are several pans containing nice plants of Promenæa citrina, P. stapelioides, and P. Crawshayana, the latter being the only seedling raised from P. stapelioides crossed with P. xanthina.

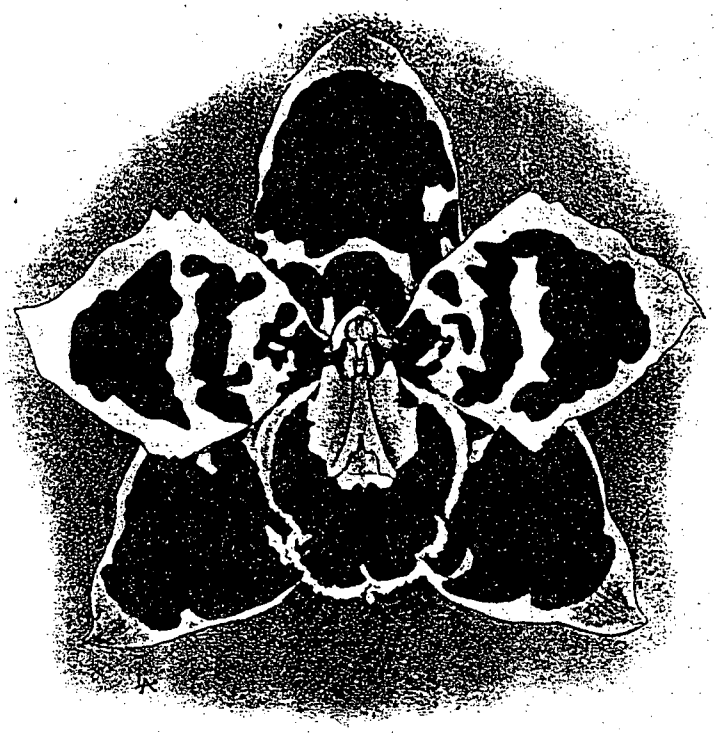


Odontoglossum Hallio-crispum Theodora (*R.H.S. Journal*).

In another house may be seen a splendid selection of Odontoglossum triumphans, the finest variety yet seen being O. t. Lionel Crawshay, others of great merit being Crawshayanum, Raymond Crawshay, Czar, Princeps, Regina, and Imperator, but none compare to the former unique variety. The varieties of the pretty Odontoglossum Andersonianum comprise O. A. Crawshayanum, which, when exhibited by Mr. Cookson in 1904, obtained a First-class Certificate, Bogærdianum, and Mrs. de B. Crawshay, the latter being a bright yellow variety.

Odontoglossum Lindleyanum was crossed with O. Harryanum, but although only one seedling was raised it was sufficient evidence to prove the parentage of O. Wattianum, a natural hybrid of which the origin was doubtful. At the north end of the staging in this house is an interesting lot of Odontoglossum Zenobia produced by crossing O. Hallii with O. Edwardii. Much variation in the habit of the plants is visible, those taking after the latter parent growing in a robust manner, while others resembling the Hallii are looking rather sickly and with hardly any purple in the leaves. It is of interest to note that O. Hallio-crispum was the first hybrid Odontoglossum to be raised at Rosefield.

Another house, 70 feet in length, is entirely devoted to Odontoglossums, and contains many of the finest varieties of O. crispum yet seen. A plant of O. crispum Princess May is in full bloom, and the spike of twelve beautiful and perfect flowers has been graciously accepted by Her Majesty Queen Mary. Another lovely variety is known as White Empress, while two of the best-shaped crispums in the collection are called Cherubim and Seraphim, the latter being almost a snow-white form of perfect shape and large size. The names of Venus and Angel denote two other superb varieties, and crispum Nixia, as



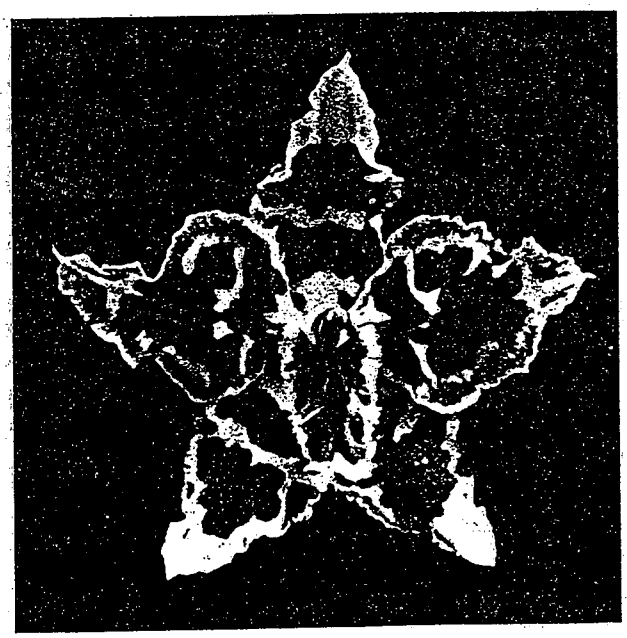
Odontoglossum triumphans Lionel Crawshay.
From a painting by Miss Louisa Allingham.

its name indicates, resembles snow. It is impossible to include the names of all the fine white varieties of crispum in this house, so one must conclude the list with the following:—Isolde, Lady Buchan, Brünnhilde, Mrs. de B. Crawshay, and xanthotes White's variety. It is worthy of note that Venus took the R.H.S. First Diploma both times for an "unspotted crispum," as did triumphans Lionel Crawshay in the class for its species.

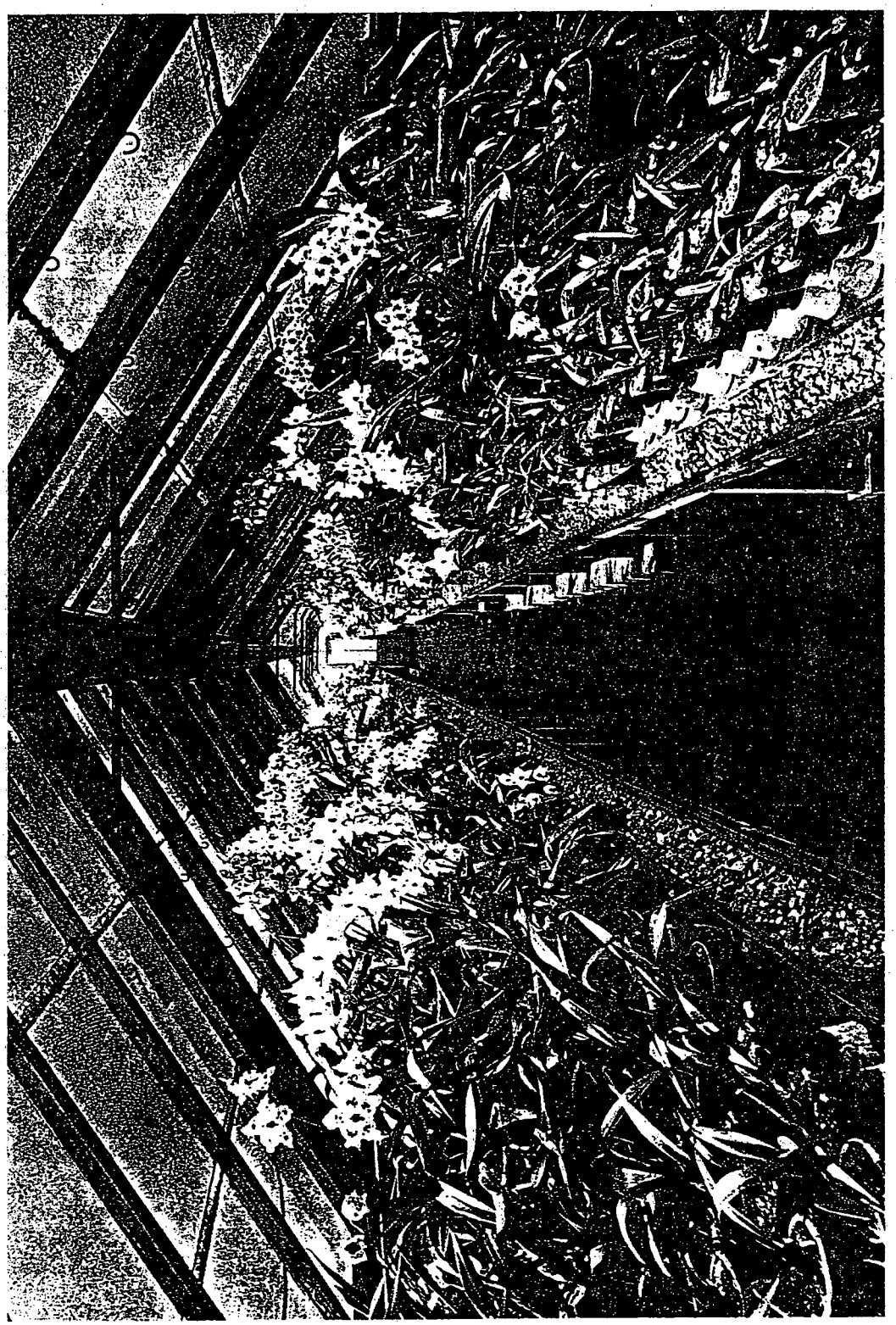
The noble blotched forms are well represented, the finest of all being crispum Queen of the Earth, a wonderfully coloured variety; de Barri, a very distinct and perfect-shaped flower; Lionel Crawshay, Raymond Crawshay, Crawshayanum, Imperator, rosefieldiense, Mariæ, Poultonii, Blue Spot, Beatrice, Theodora, and Stevensii, many of which have received awards at the principal meetings of the Royal Horticultural Society. Odontoglossum Harryanum Theodora is Mr. Crawshay's finest variety of this species, now so much used for hybridising purposes.

Since 1885 the fascinating work of hybridisation has been carried on with considerable success, hundreds of plants being now of flowering size. Mr. Crawshay was among the pioneers in raising Odontoglossums, and he looks back now in wonder at the repeated failures of those early days of experiment and loss of baby seedlings. But, nothing daunted, and determined to succeed, he went on, though it was fourteen years before he bloomed his first seedling in Halio-crispum Crawshayanum, which plant he would not part with "for worlds."

Among the many fine hybrids to be recorded are a splendid Odontoglossum



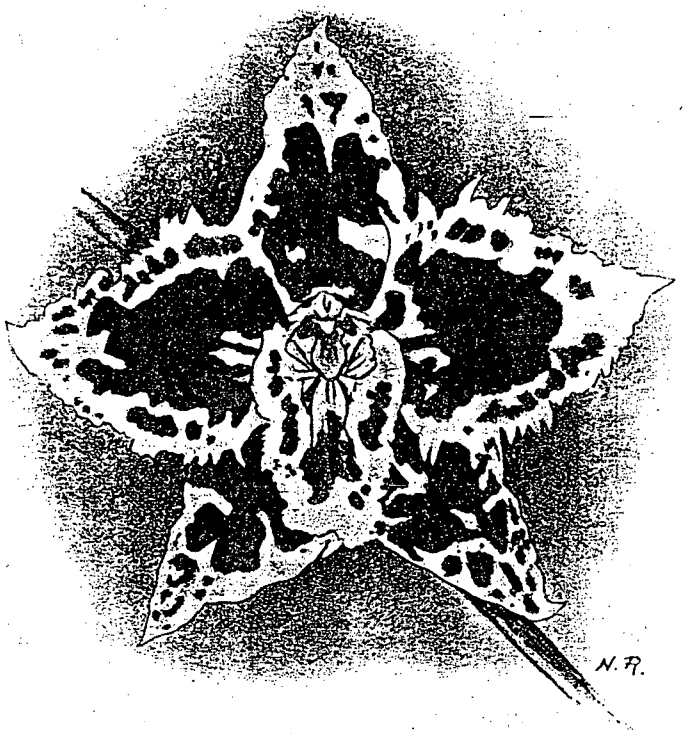
Odontoglossum eximium Crawshayanum.
From a photograph (reduced) by Lionel Crawshay.



One of the Odontoglossum houses at Rosefield, Sevenoaks.

The plants in the foreground are unflowered seedlings. The material on the under-stage is broken pumice-stone.

Wilckeanum Argus, O. W. grande, an extremely dark variety of O. Lambeauianum, a grand form of O. Vulcan (crispum × Vuylstekei), O. Vulturia (triumphans × Vuylstekei), being almost solid deep lustrous brown. An interesting hybrid is O. waltonense, produced by means of a rosy crispum, which gives the flower a sunset glow. A pure white variety of O. eximium is rare, and a splendid plant of O. Valkyrie is in full flower; this latter hybrid and O. Una are the only two seedlings yet recorded from the use of O. nevadense, both of which were raised here as single plants. One cannot help admiring a magnificent hybrid in full flower known as O. eximium Crawshayanum. It is one of the finest results yet obtained by Mr. Charlesworth, and will prove of great utility for hybridisation purposes. Two other good things are O. regale rosefieldiense (Lawrenceanum × ardentissimum) and O. Urania (crispum × cristatellum), carrying a grand spike of thirteen flowers.



Odontoglossum crispum Queen of the Earth.
From a painting by Miss Roberts.

Many will remember the magnificent Odontoglossum rosefieldiense which received an Award of Merit last January and was figured on page 122. A plant of Sir Jeremiah Colman's well-known strain of O. Thompsonianum has come here to make some interesting hybrids of possibly new colours as Mr. Crawshay considers "new blood" absolutely essential. There are large plants of the pretty O. Fascinator, O. Zena (Sceptrum × Harryanum) with a brilliant yellow lip, O. Vulpex (Pescatorei × Vuylstekei), O. Crawshayanum, O. Queen Alexandra with enormous labellums, O. mirificum with a spike of ten very fine flowers, O. McNabianum, O. Nerissa, and O. Astarte, obtained by crossing O. Harryanum with O. tripudians to fix the violet labial blotch.

For many years Odontoglossum Rossii majus was grown in large quantities, but only the very best varieties have been kept for the purpose of breeding, one of the finest results so far obtained from the use of this species being the notable Odontoglossum Theodora, the only seedling raised from a pod resulting from O. Rossii × triumphans.

The list of hybrids raised at Rosefield is immense, but enough has probably been said to prove the great scientific enthusiasm which Mr. Crawshay devotes to Orchidology, and especially "Odontiology."

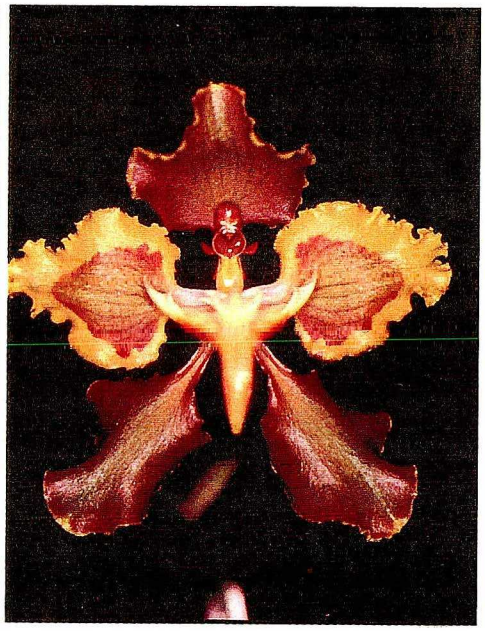
It remains to be said that Mr. Stables, whose time and interest are taken up in the practical work, carries out all the details in a thorough and praiseworthy manner, and is to be congratulated upon being in charge of such an interesting collection G. W.

Cyrtochilum Santa Barbara Gold AQ/NZOS

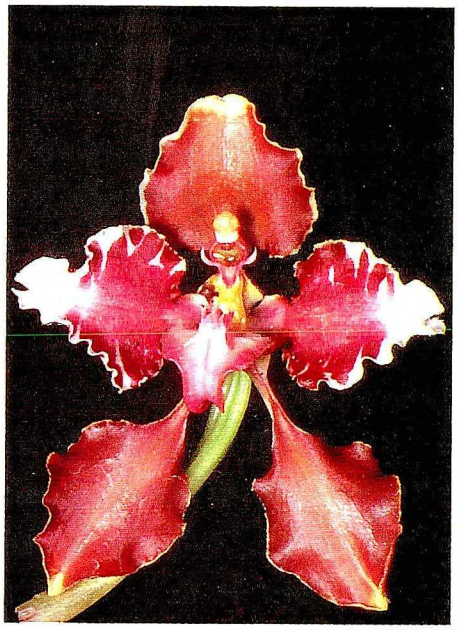
Cyrtochilum gargantua

Cyrtochilum orgyale

Colmanara Jacob's Coat 'Glamor' AM/AOS

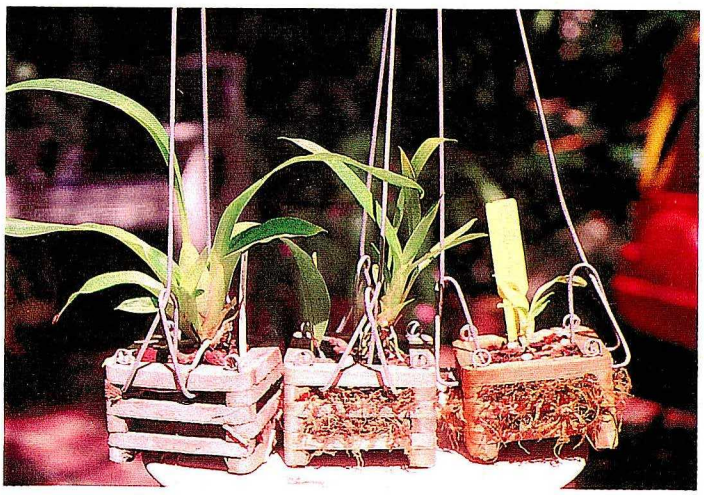


Cyrtochilum species, Peru.



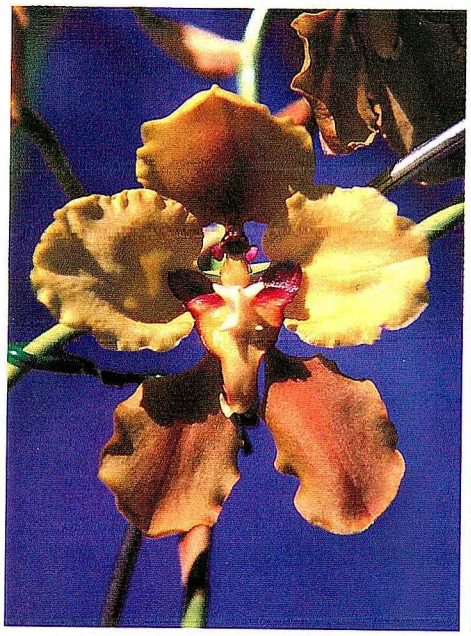
Cyrtochilum superbiens

Oncidioda Crowborough 'Chelsea' AM/RHS



Cyrtochilum seedlings in baskets (25-12-7 months growth).

Middle left: Greg Allikas, others: by or furnished by Howard Liebman

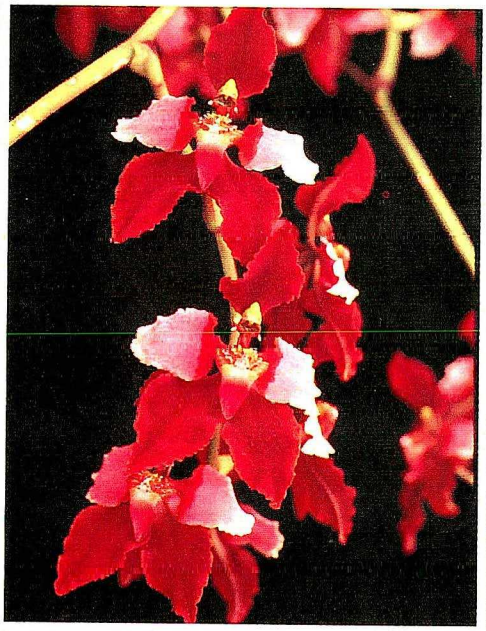


Cyrtochilum macranthum '#6'

Cyrtochilum macranthum 'Williamsianum'

Cyrtochilum serratum

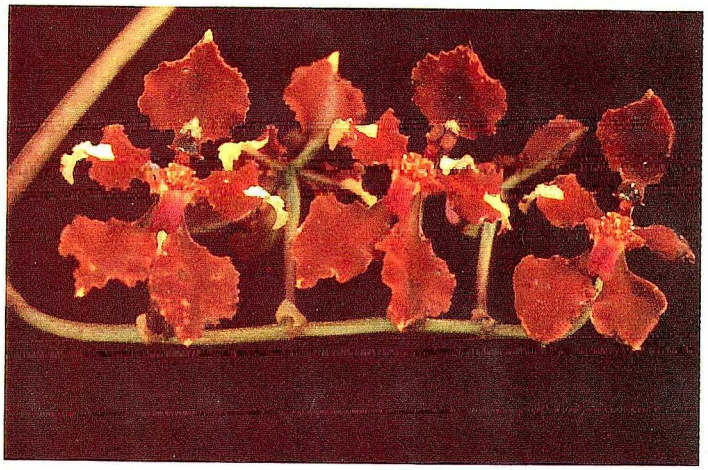
Cyrtochilum lamelligerum



Cyrtochilum pastasae

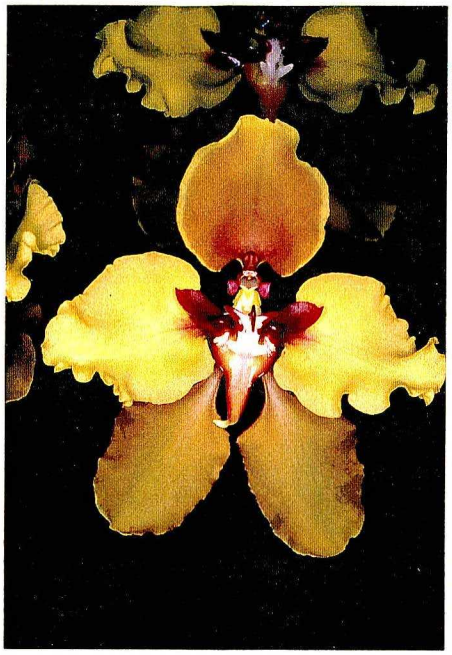
Cyrtochilum loxense 'J & L' CBM/AOS

Cyrtochilum monachicum



Cyrtochilum carderi

Photographs by or furnished by Howard Liebman



Cyrtochilum macranthum

Cyrtochilum macranthum

Odontocidium Cherry Fudge 'Swiss Mocha'

Cyrtochilum cryptocopis

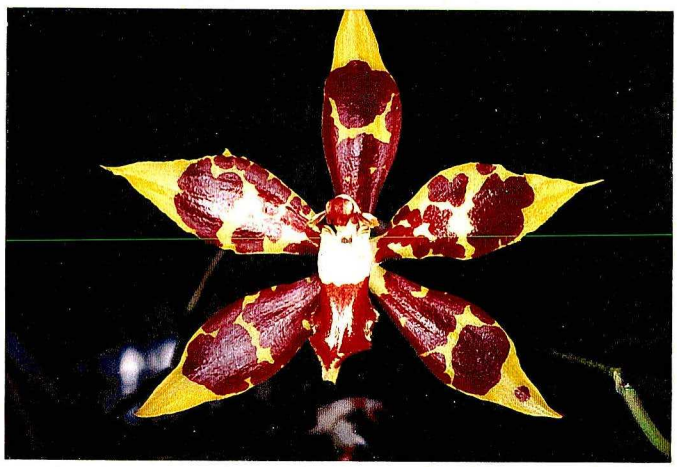
Cyrtochilum halteratum 'Cuenca'

Cyrtochilum halteratum

Odontoglossum epidendroides (Ecuador)

Odontoglossum epidendroides (Peru)

Odontoglossum kegelijanii



Odontoglossum spectatissimum

Odontoglossum subuligerum

Odontoglossum spectatissimum