

# ❖ Odontoglossum Alliance ❖

Newsletter

May 1996

## Odontoglossum povedanum

### Newly Discovered Odontoglossum Species.

*Odontoglossum povedanum* is a newly discovered species from Colombia. A photograph of it is in the color section of this newsletter. The species was discovered by Juan Felipe Posada, who I understand had a collector offer to sell him some plants which among them were a number of this species. Juan recognized that it was a yet to be described *Odontoglossum*. The plant has been flowered both in Colombia and the United States. Stig Dalström, Marie Selby Gardens showed slides of the flower at his talk in Santa Barbara on March 9, 1997. He estimated that the plant would be described in an archive journal within the next several months.

One of the unusual things about this plant is that it flowers from the tip of the flower spike first and then flowers progressively back towards the base of the flower spike. The flowers are about two inches across. Juan Felipe Posada donated one of these plants to the *Odontoglossum* Alliance auction in Santa Barbara and after some very active bidding, Roger Williams, our vice president, won the plant. I am looking forward to seeing Roger put this in a show or up for judging.

### Comments from Stig Dalström, Marie Selby Gardens

#### *Odontoglossum povedanum*

Life is certainly a wonderful thing. It is full of surprises. One such arrived to my attention in the fall of 1996, in the shape of an extraordinary herbarium specimen. It originated in Colombia and was sent by Rodrigo Escobar, the mentor and motor of the Colombian orchid enthusiasts. There was no further information available at the first encounter with this unidentified orchid species. Only one dried inflorescence with some widely scattered flowers.

At first I suspected that it was an *Oncidium* species of the "Cyrtochilum" complex, due to the size and shape of the flowers as well as the apparently creeping, or at least not strictly erect, spike. However, there was something about the flowers that did not look quite right for that group of plants, so I decided to rehydrate one in an ammonia solution and draw it.

As the flowers began to reestablish their original shape my heart started to beat faster. Could this, what I suspected I was looking at, really be true? I knew that Rodrigo had sent the specimen particularly for me to look at. If he had recognized it as an *Oncidium* of sorts, surely he would not have done that. Since he knows I am particularly interested in *Odontoglossums*, he must have sensed that this was something out of the ordinary and worthwhile studying in detail (bless his heart, mind and soul!). As the flowers were swelling in front of my eyes, they in turn grew wider.

When I finally was able to study the flower in detail, under microscope, and draw it with the help of a drawing tube, I got very excited. It was an *Odontoglossum* species, no question about it! A very odd and different one but also very distinct. As I focused on the reproductional organs of the flower (the pollination oriented parts), it became clear that I had seen something similar before. The shape of the column, with the laterally

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projecting lobes, can be seen in all members of the *Astranthum* complex (*O. astranthum*, *O. multistellare*, *O. tenuifolium* etc.). They also share the hairiness of the base of the column as well as frequently on the lower part of the lip lamina itself. The strange looking callus is nothing but hairy, well developed keels, much in the way of several other species in this group. Incidentally, no member of this complex has hitherto been described from Colombia.

There are also several other species in the *Odontoglossum* alliance (sensu lato) that we can compare our "newcomer" with. It has certain similarities with the *Oncidium maculatum* complex, especially with what is described as *Oncidium lindleyi* (Galeotti ex. Lindl.) Jimenez & Soto, in *Orquidea* 12(2). Feb. 1992. The hairiness is there, the callus as well as the general shape of the lip, the straggling inflorescence and so on. Personally I believe that the *Oncidium maculatum* complex, as well as the *Miltonioides* complex, all are quite closely related to the Andean *Odontoglossum*s, especially with the *O. harriganum* complex. So what I believe I am seeing is a chain of rather closely related links. One merges into the next and so on. This is also the way it has to be since they are all members of the same subtribe after all, the *Oncidiinae*. It is more of a question of which piece of the puzzle goes where.

After having studied the flower of our new *Odontoglossum* species I wrote Rodrigo and informed him about my conclusions. I also asked for more information, and possibly a complete herbarium specimen. There were still some doubts in my mind though, basically because the inflorescence seemed so odd and different with its apparently wiry, or creeping habit. I wanted to see a plant, especially the pseudobulbs, since they are quite characteristic and indicate where the plant belongs in the *Odontoglossum* alliance. If this strange new plant had pseudobulbs similar to ones in the *Oncidium* "Cyrtochilum" complex, my judgment would be in jeopardy. However, if the pseudobulbs looked like any other *Astranthum* complex, I would score a point. At least in my mind.

In early March 1997, I finally got my chance. Juan Felipe Posada, from Colomborquideas outside Medellin, Colombia, had brought a couple of plants to the Orchid Festival in Santa Barbara. This, I was informed by several other *Odontoglossum* enthusiasts in California who were just as excited as I was and we could hardly wait to see one. My opportunity came during the Fund-raising auction for the *Odontoglossum* Alliance, where Mr. Posada very generously donated a healthy plant of this particular species.

When I approached the plant, I felt a little bit uneasy. What if the pseudobulbs looked like an *Oncidium macranthum*? My taxonomical theories would hardly take such a blow lightly.

I did not need to worry. When I saw the plant, I knew I was right. It had a perfect *Odontoglossum* shape. The pseudobulbs were smooth and glossy with distinct edges and the leaves were thin and typical as well. Unusually long narrow but otherwise nothing out of the ordinary.

From here on, Juan Felipe himself will have to continue this story about how, when and where...

## Comments by Juan Felipe Posada, Colomborquideas, Medellin, Colombia

### *Odontoglossum povedanum* Ortiz, sp. nov.

This species was found in a rather large population at 2000 meters above sea level in an area called Vado Real, near Suaita in the Department of Santander, only about 200 kilometers from Bogotá and very near a main road. Enrique Poveda, a well known collector, was the person who brought these plants around and from his last name derives the species name.

It is incredible, amazing that such a big and showy species as this new *Odontoglossum*, remained unknown and unnoticed until only some months ago. Famous collectors during the last century like Linden and Schlim surely passed through this area, but no reports of any flower similar to this new *Odontoglossum* was ever reported.

The flowers of this species are rather big, around 4 to 5 centimeters across; yellow with brown spots borne on a long and branched inflorescence of up to one meter long. A close look at the flowers reveals a very unusual *Odontoglossum* not similar to any of the other species described before. The structure of the lip with the outer lamellae of the callus extremely papillose is very striking.

Another unusual characteristic of this *Odontoglossum* is that the first flowers to open are at the end of the spike rather than at the proximal part.

According to Father Pedro Ortiz, the well known Colombian botanist that described *Odontoglossum povedanum*,<sup>1</sup> this species belongs by many aspects in the section *Myanthium* of the genus, but many other aspects separate it from that group. Consequently it appears in an intermediate position between a typical *Odontoglossum* and those of the *Myanthium* group recently raised to a genus level by Koniger and Schildhauer under the name of *Dasyglossum*.

Let us hope that this new species will encourage new combination in the *Odontoglossum* Alliance to show us in a near future more and different flowers.

## Comments by Bob Hamilton, Berkeley, California

Blooming on a recently established plant, the flower scape was thin and wiry, about 1 meter overall. Flowers matured and flowered

from the end of the spike opening in succession with 50mm flower spread. The lowest flowers were branched with 3-4 flowers. There are several peculiar characteristics about *Odm. povedanum*. The branching and flowering is obtuse rather than acute as in most *oncidinae*. There are appendages on the lip that look like osmophores. I would expect a more robust blooming as the plant establishes.

### Comments by Steve Beckendorf, Berkeley, California

I don't have much to add to Bob's description, especially since you have the pictures of the flowers. The outer lamellae of the callus are the parts that look like osmophores - very fuzzy (or more botanically correct, pubescent) and held erect, adjacent to the tubular opening between the column and the base of the lip. These osmophores are sometimes branched (Y-shaped). I don't know of anything similar in other *Odm.*, if that is what this is. One other distinctive character are the plate-like extensions from the lateral edges of the column. These extend toward the narrow base of the lip. Since the base of the lip and the column are parallel to each other (maybe a mm or two apart) these lateral extensions create a narrow tube, probably a false nectary toward which the pollinator is directed. Stig (Stig Dalström, Marie Selby Gardens, see his comments) initially thought these extensions allied *Odm. povedanum* with *astranthum*, but I'm not sure he still thinks that. Suggestions of similar lateral extensions can be found in other subgenera. The only other thing I can add is that, on the five plants I've seen the leaves seem to be exceptionally long and the foliage is characteristically darker green than most *Odont.*, though this might be more related to the particular corner of *Colomborquideas* where they've been held than to the species itself.

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1. Stig Dalström reports (from Rodrigo Escobar) that *Odontoglossum povedanum* will be described in May 1997 in the Colombian Journal *Orquideologia*.

## Report on the Santa Barbara Odontoglossum Alliance Meeting

by John E. Miller

The meeting commenced at noon 7 March 1997 with a luncheon that was well attended by members of the Alliance as well as a number of odontoglossum lovers. The President gave a short report at the conclusion of the lunch and also read the Treasurer's report. This report is printed in the newsletter. The auction of odontoglossum alliance material followed Howard's report. The highlight of the auction was a newly discovered odontoglossum specie which was donated by Juan Felipe Posada. This specie is described elsewhere in this newsletter. The species was also discussed by Stig Dalström in his lecture on *Odontoglossum* Species. After some rapid fire bidding Roger Williams our vice-president won out. There were many plants and flasks donated, many of which were unusual or represented high potential. A number of donated plants were in flower and clearly represented fine varieties. In all the auction raised \$1051.00 for the Alliance. Most of this will go towards operating expense, the majority of which is the newsletter production and mailing. The beneficiaries of this auction are those that won plants or flasks and of course all our members who receive the newsletter. This will permit us to continue to keep dues at the minimum of \$15.00 per year and at the same time continue to expand the newsletter, particularly the color pages.

Following the auction Valerie Henderson of the Orchid Zone, our session chairman took charge and provided interesting introductions for each speaker. Tom Perlite, Golden Gate Orchids, our first speaker, described his work in the creation of *Wilsonaras*. These were of interest to our members who love the alliance, but need to grow at somewhat warmer temperatures. Tom's display of flowers, through his slides, showed the great improvement in flower quality and number of flowers per plant. He certainly had the audiences attention with his display of *Wilsonaras*.

Stig Dalström provided a most thought provoking and well illustrated discussion of *Odontoglossum epidendroides* and its relation to other named odontoglossum species that are similar. Stig felt there were a number of taxonomic errors with the species. His material was largely that which we are publishing in the newsletter. I call you attention to his article in the February 1997 letter. Stig illustrated his talk not only with flowers and plants, but also many pictures of the environment which was most helpful in understanding the growing conditions. Also of great interest was his short discussion of a few newly discovered species, including *Odm. povedanum* and some species from Bolivia. His continuing work in this area will certainly be interesting to follow.

The odontoglossum growers of the West coast we covered by John Hainsworth of Strawberry Creek Orchids. John's talk started with the dean of American odontoglossum hybridizers, Robert Dugger. The talk was illustrated by a picture of Bob and followed by slides of a number of his more notable hybrids. John also discussed the growing and hybridizing work of Bruce Cobledick, formerly of Unicorn Orchids. He left the discussion of the work of Tom Perlite to Tom's own discussion of *Wilsonaras*. John concluded with a picture of Dr. Wally Thomas, Charles Island Orchids, Vancouver. Wally is the Chairman of the 99 WOC in

Vancouver. John showed a number Wally's hybrids. The greenhouses at Strawberry Creek, Pat Hill, and their notable hybrids was another interesting discussion.

Tim Brydon was, unfortunately, not able to attend, but his talk and slides were delivered by Dr. Howard Liebman. The talk was the orchid paintings of Nellie Roberts who for 50 years illustrated the awards of the RHS. Tim had collected slides illustrating her work showing the odontoglossum awards starting from her first days through to the time of her retirement. These slides showed

some stunning flowers that were awarded in the early part of the twentieth century. It was interesting to see these great flowers and compare them to those we see today. Tim also provided two of Nellie's actual watercolors for the audience to examine following the talks.

The audience was somewhat over 70 people most of the time. The applause at the end of each talk was generous and heart-warming to the speakers and the organizers of the meeting. The next meeting of the Odontoglossum Alliance will be held May 1998 in Toronto, Canada.

## Enigmatic Odontoglossums, Part 2

### The *Odontoglossum cruentum* Complex, Part 1

By Stig Dalsröm

The type for this complex of troublesome *Odontoglossum* species - *Odontoglossum cruentum* - was described by Professor Reichenbach in *xenia Orchidacea* (1873, plate 174). It was a plant collected by Wallis at Chiquiribama, near the city of Loja in southern Ecuador, at 6,560 to 8,200 feet (2,000 to 2,500 m) elevation. Apparently he sent one single dried flower and a sketch of the habit to Reichenbach, who, in spite of such insufficient study material, did not hesitate to describe it as a new species.

Fortunately this particular species is a rather easily recognized taxon despite the poor type specimen. It occurs fairly commonly in the mountains surrounding Loja and can be found growing epiphytically in moss-covered trees as well as terrestrially along road cuts in wetter areas. Although relatively variable in size and coloration, the morphology of the flower is remarkably constant. It may superficially resemble one or another of the species/subspecies in the *Odontoglossum epidendroides* complex (Dalström, 1955), but is easily separated by the much shorter column usually without developed wings, and a shorter basal part of the lip (the "claw").

Plants of the *Odm. cruentum* complex commonly grow with plants of *Odm. epidendroides* complex without producing natural hybrids on a regular basis. This is a good indication that these are different and well-defined species. But similarly, as for *Odm. epidendroides* and its allies, the *Odm. cruentum* complex can be separated into several species/subspecies that transform gradually into each other throughout the area of distribution. These various forms have traditionally been described as distinct species by various authors. But, as with the *Odm. epidendroides* complex, they do not seem to occur together.

Geographically we find the "typical" *Odm. cruentum* in southern Ecuador and farther south into Peru, always preferring higher altitude wet mountain forests.

In 1903, Weberbauer collected an *Odontoglossum* plant in "Janangu, eastern Huacapistana" in central Peru, which Schlechter in *Fedd. Rep. Beiheft IX* (1921, plate 109), described as *Odontoglossum juninense*, in reference to the province where the plant originated. Although the actual type specimen supposedly lost during World War II, there is an interesting illustration of this species, made by Schlechter, in the same publication (LVII, pl. 18, fig. 500, 1929). After studying this illustration it becomes evident that, morphologically, little separates this plant from *Odm. cruentum* except for a couple of minor details. One is that the central keels of the lip callus appear somewhat sharper angled. The other is that the lip has more pronounced front lobes, which are clearly broader than the lamina itself. In truth, no convincing differences are apparent when considering the natural variability of *Odontoglossum* species.

When studying *Odm. juninense* in Bockemühl's monograph of the genus (Bockemühl, 1989), the plant illustrated lacks these above-mentioned characters. Instead there are some photographs of a *cruentum* and one photograph (page 115) showing something that appears to be a natural hybrid involving *Odm. cruentum* as one parent and possibly *Odm. praestans* Rehb.f. & Warz. as the other, also lacking the above mentioned *Odm. juninense* characters.

Personally I have not seen any wild-collected specimen from that particular area of Peru that resembles the typical *Odm. juninense*, except for on a slide that was presented to me in 1991 during the International Epiphyte Symposium at the Marie Selby Botanical Gardens. This photograph, which was taken by a Peruvian orchid enthusiast, shows a flowering plant *in situ* and is labeled "Oxapampa" and bears the initials "C.M." The locality of this plant comes quite close to the type locality of *Odm. juninense* and the flower clearly looks like the one in Schlechter's drawing.

On the other hand, we do find something that appears identical to this "lost" species in Bockemühl's book as well, but under another name. *Odontoglossum portmannii* was described by Bockemühl in *Die Orchidee* (39, p. 13, 1988). The author men-



tions that this species was first found by Portmann (hence the name) who collected it at "Huancabamba, northern Peru" in 1883, but that it was erroneously identified as *Odm. armatum* (another species in this complex) and filed as such in the André Herbarium at the Royal Botanic Gardens, Kew.

Studying this particular specimen, which consists of two dried flowers and a leaf, reveals primarily that the locality is "Huacapamba," which may or may not be the same as cited in Bockemühl's book. Secondly, when examining and drawing one of these flowers under a microscope, we find a flower that looks like a good *Odm. cruentum*.

Returning to *Odm. portmannii* and examining the photographs and drawings in Bockemühl's book, we see something that looks more or less exactly like Schlechter's drawing of *Odm. jununense*: the somewhat sharply angled callosity and the broader front lobes on the lip (just as it looks on the photograph from Oxapampa). Aside from these mentioned characters *Odm. portmannii* is morphologically inseparable from *Odm. cruentum*.

But just as for the *Odm. epidendroides* complex, with "species" flowing gradually into each other, Bockemühl admits that since the range of distribution of *Odm. portmannii* and *Odm. cruentum* overlap, relatively many intermediate forms occur. Bockemühl regards them as "natural hybrids." Personally I interpret this fact as evidence that they are merely geographical "subspecies" of "races" that have not yet developed into distinct *Odontoglossum* species.

As a comparison, we have *Odontoglossum crispum* Lindl. with its innumerable forms, some of which have varietal names after the region of origin, e.g. "Fusa," "Pacho," etc. This immediately tells the experienced orchid grower that he or she is dealing with a particularly "stary" flower or an exceptionally round and broad segmented one. Nobody seems to doubt, however, that they represent the same species.

Where *Odm. cruentum* reaches the obscure northern limit of its distribution, somewhere along the Andean slopes west of Gualaquiza, we start finding *Odm. portmannii*. This later "species" is rather common along the road from Gualaceo to the Oriente, east of the pass, at about 6,500 to 8,500 feet (2,000 to 2,500 m) elevation. It grows and appears exactly like its "twin species" from the south. It is also found around Baños in central Ecuador and here and there along the eastern slopes up around Baeza in the northeastern part of the country.

In this region, the morphology of the flower has changed again somewhat. The lower keels of the callus can be more pronounced and spiny. We also start finding colored streaks on the callus near the base of the lip. But the overall morphological features are otherwise the same. Photographs of this "species" can be seen in Bockemühl's book, now identified as "*Odontoglossum subuligerum*" Rchb.f. (pages 108 to 111)

The type of *Odm. subuligerum* comes from "southern Peru." When examining this specimen (Pearce 809), which is in the Reichenbach Herbarium in Vienna, it is clear that it is identical to a plant that is fairly common in Bolivia and not the same as the plant illustrated and treated in Bockemühl's book. The "true" *Odm. subuligerum* is not included in that treatment at all. But, since the author claims that it includes "all of the *Odontoglossum* species which have been described up to this time and to represent in drawings and photographs all of the species which have been demonstrated to be valid," it caused Königer to describe this species a second time, as *Odm. hauensteinii*, in his *Arcula* 2, 9 Nov. 1994 (which thus becomes a synonym).

Bockemühl claims that there is only one just opened bud on the type sheet, and it is therefore apparently impossible to make a positive identification. Furthermore, Bockemühl refers to a drawing of a fully opened flower in the Ames Orchid Herbarium at Harvard University, which is described as "poorly recognizable with regard to important details," Bockemühl also mentions that the location of the voucher for this drawing is unknown.

For somebody who has seen the true *Odm. subuligerum*, the drawing at Ames nicely reveals what must be regarded as "important details"; the shape of the column and the rather peculiar callosity, as well as the overall shape and size of the flower. The "missing" flower is in the envelope next to the mounted inflorescence on the type specimen. It is a good flower with all the "important" features clearly visible., except for the upper part of the column which was pressed too hard and is somewhat flattened.

*Odontoglossum subuligerum* appears to be a fairly distinct species, although more closely related to *Odm. epidendroides* H.B.K. than to *Odm. cruentum*.

What ever happens to this complex of *Odontoglossum* plants farther north along the eastern slopes of the Eastern Cordillera in Colombia is unknown to me, partly due to lack of collected material and partly due to hostile guerrilla activities. But we do encounter it again on the western slopes, under yet another name.

At about 8,200 feet (2,500 m) elevation on the wet western slopes of the Andes in Ecuador and southern Colombia we find *Odm. armatum*. This species was originally collected by Prof. Jameson in "Andes west of Quito," and described by Reichenbach in *Linnaea*, XLI, p. 32, 1877. It is morphologically very similar to the other members of the *Odm. cruentum* complex and differs basically only in being more delicate in all parts with fewer flowers on the raceme. The central keels of the callus are relatively large and pronounced with the lower keels commonly almost lacking. But this is a quite variable taxon and this is also where we get more profound trouble when we try to make some sense out of Mother Nature.

#### References

- Bockemühl, L. 1989, *Odontoglossum, A monograph and iconograph*. Brücke Verlag Kurt Schmiersow, D3200 Hildesheim  
 Dalström, S. 1995 *Enigmatic Odontoglossums: the epidendroides complex*. *AOS Bulletin* 64(11): 1218-1223.  
 Königer, W. 1994, *Odontoglossum hauensteinii* Kgr. sp. nov. *Arcula* 2 Nov. 9.

- Reichenbach f., G.H. 1873 *Xenia Orchidacea* II, plate 174 (Description of *Odontoglossum cruentum*).  
 \_\_\_ 1877 Linnaea, XLI. p.32. (Description of *Odontoglossum armantum*).  
 Schlechtler, R. 1921, Fedd. Rep. Beiheft IX. p.109 (Description of *Odontoglossum jununense*)  
 \_\_\_ 1929. Mansf. Fedd. Rep. Beiheft LVII. pl. 128. fig. 500. (Illustration of *Odontoglossum jununense*).

### Editors Note

This material by Stig Dalstrom of Maries Selby Gardens is reprinted from Orchids with the permission of the author and the American Orchid Society. This is the second of the six part series.

## My Latest Attack Plan on Bugs

by John Miller

I spent a great deal of time and some money when I built my latest greenhouse to prevent infestations of slugs. I am very pleased and proud of the results. In the time since 1987 when I started in operation I killed only four or five slugs and snails. Those I know were brought in with plants purchased. I haven't seen a slug or snail in the greenhouse in the past four years. We do have plenty of them in our yard and my wife is constantly attacking them in her garden. The plants also are free of most other pests. However over the years infestations of scale. There would be one or two on a plant. I would delude myself that they could be wiped off and would not need to spray. Bad Mistake. Always I would find more until scale could be seen in many places. Over the years one insecticide after another was tried. I would kill off the scale and it would be OK for about a year. Then in the warm summer when our nights don't get down below 70 degrees for a number of nights and with the high humidity, the scale would bloom again.

In discussing this with a few of my local orchid friends I found they had NO bugs. When I quizzed them as to how they enjoyed such euphoria and good luck they told me they had switched to Enstar II. What is Enstar II? It is an insect growth regulator. As I understand it, it prevents the insect from going to the next stage. since each insect has a finite and short life, preventing it from going to the next insect stage and reproducing would soon cause its demise. I have now used it and with great success. I have just completed repotting my entire odontoglossum greenhouse and I found NO live scale. I found lots of dead bodies, which I brushed off, but NO live scale. Or any other insect for that matter. I plan to use Enstar II each spring with two doses of spraying spaced about two weeks apart. I think the stuff is great. I found a five ounce bottle cost about \$80.00. It is a Category F insecticide. For preventive spraying it is recommended to use 1.5 teaspoons per 5 gallons of water. For Curative spraying they recommend 3 teaspoons per five gallons. The product is made by Sandoz Agro, Inc; 1300 East Fourth Avenue; Des Plaines, IL 60018. And I don't any stock in the company.

## The Odontoglossum Paintings of Nellie Roberts 1898-1953

by Tim Brydon

The Orchid Review Vol. LXI, 1953 had the following notice:

"RETIREMENT of Miss N. Roberts. - It is with regret that will be shared by many we learn that Miss Nellie Roberts has decided to retire from the post of Artist to the Royal Horticultural society's Orchid Committee. For more than a half century Miss Roberts has painted the portraits, in colour, of all Orchids which have received an Award of Merit or a First Class Certificate. Miss Roberts was appointed in 1897 and the collection of her paintings consists of 4,500 pictures; these are filed alphabetically in cabinets housed in the Orchid Committee Room, where they are available for ready reference whenever the Committee meets. The Committee is expressing its appreciation of Miss Roberts' long and valuable service both by letter from the Chairman and by a cheque to which all members very willingly and affectionately subscribed. In recognition of her work on behalf of Orchids and Orchid lovers, the fifty-ninth volume of *The Orchid Review* (1951) was dedicated to Miss Nellie Roberts."

Another announcement made in *The Orchid Review*, May 1953:

"It was with deep regret we received the news that Miss Nellie Roberts of Brixton died on Easter Sunday. For more than half a century Miss Roberts painted the portraits in colour of all orchids which received an Award of Merit or First Class Certificate; there are nearly 5,000 of these paintings. In recognition of her work, The Royal Horticultural Society presented her with a Silver Veitch Medal and 25 Guineas in 1953 and in 1951 the 59th Volume of the *Orchid Review* was dedicated to Miss Roberts for her valuable contribution to orchids and orchid lovers."

Miss Roberts did an amazing amount of work and her paintings are a testament to that effort. It is interesting to see her work and compare the paintings of awarded flowers of yesterday to those the we see today. What follows is a series of pictures of her water-colors of awards starting with her first Odontoglossum paintings and selectively following works through to her retirement. In addition are some works completed by other artists following Miss Roberts retirement.

March 1898 - Odm. Wilckeanum 'Pittiae' FCC, Exhibited by H.T. Pitt (Odm. crispum x Odm. luteo-purpureum, Sanders lists as a natural hybrid. There is a later hybrid (1920 made by Colman from the same parents.)

April 1903--Odm. triumphans 'Crawshayanum' AM. exhibited by D.B. Crawshay

August 1908--Odm. Wiganianum 'Suberbum' FCC (Odm. Wilckeanum x Odm. Rolfeae, the cross registered in 1903 by Sanders)

April 1910--Odm. Lawrenceanum 'Cobbs' Variety' AM (Odm. triumphans x Odm. Rolfeae, the cross registered in 1905 by Vuylsteke)

June 1918--Odm. Promerens 'Xanthotes' FCC, awarded to Armstrong and Brown. A note on the award said 'Xanthotes varieties were used as parents. The cross was registered in 1910 by Vuylsteke and the parents were Odm. crispum x Odm. eximium.

February 1924--Odm. Xanthinum AM awarded to Charlesworth and Co. with 15 flowers on the spike. The cross is Odm. Ardentissimum 'xanthotes' x Odm. luteo-purpureum 'Vuylstekeanum', made by Charlesworth and registered in 1917.

August 1928--Oda. Colinge 'The Baroness' FCC The cross is Oda. Coronation x Odm. crispum, registered in 1918 by Phillips.

Some later painting made after the retirement of Nellie Roberts of awarded flowers.

June 1963--Odm. Perolia 'Roke' AM (Odm. Perryanum x Odm. Mongolia) This award had eleven (11) flowers shown on the spike. The cross was registered in 1957 by Charlesworth and Co.

June 1964--Odm. Stroperry 'Lyoth Emir' AM, nine (9) flowers on the stem. This cross was registered in 1970 by Charlesworth and CO.

February 1980--Odm. Nicky Strauss 'Deric' AM awarded to Stonehurst Nurseries. The cross Odm. Theron x Odm. pescatorei was registered in 1972 by Stonehurst Nurseries.

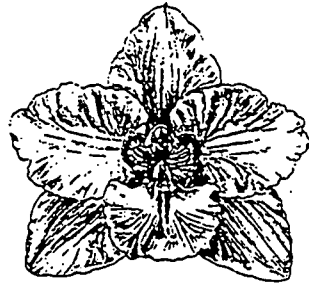
## Membership Fees are Due

This is the time of year that membership fees are due. Enclosed with your newsletter is the membership form. This year we are making it possible to pay for one or two years. Just let us know what you desire, complete the form and send your check. We can only take cash or a check. I ask you to return the form promptly so it is unnecessary to send out a reminder. I will NOT mail you the August newsletter unless I have received payment for the year. This newsletter is a one man band operation so make my life easier by responding promptly.

Remember you can subscribe to the newsletter for one or two years at a cost of \$15.00/year. The New Zealand newsletter is \$5.00/year. Also you may make a contribution to the Robert Dugger AOS Trophy which is given annually to the Best Odontoglossum awarded in the year. Members have continued to show interest in this endowment fund and it continues to build.

### Last minute Notice

I have not received the New Zealand Newsletter for this issue. I shall include it with the mailing of the August Issue of our newsletter.



## THE ODONTOGLOSSUM ALLIANCE

Financial ReportOdontoglossum Alliance19 February, 1997

The Odontoglossum Alliance has 130 dues paying members and 5 who receive the newsletter gratis. 76 people have also subscribed to the New Zealand Odontoglossum Alliance newsletter. The February newsletter has been sent out and all costs have been accounted.

Checking Account balance 2/19/97	\$2280.96
Savings Account Balance (2/19/97)	\$1404.97

This includes \$500.00 from the Odontoglossum Alliance (so we don't get charged a bank fee) and the balance (\$904.97) are donations received for the Robert Dugger AOS Trophy.

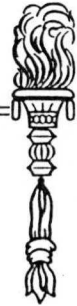
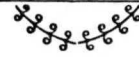
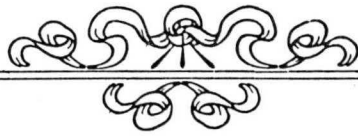
The last newsletter cost \$753.00 to print. I printed 155 copies to have extra copies for the Santa Barbara meeting. The cost per newsletter was \$4.86/copy. This cost is dominated by the color page cost of \$1.00/page. This last letter we had four color pages.

John E. Miller  
Treasurer

PO BOX 38 WESTPORT POINT, MA 02791

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## The Chessington Collection,

Christchurch Road, Streatham Hill, S.W.

THERE are few branches of horticulture in which so much variety of pleasure can be obtained as in the culture of

Orchids. Many enthusiasts of this interesting pursuit have obtained an immense amount of pleasure by collecting the many species of certain genera; others by selecting only the finest varieties of their favourite species; while not a few are keenly taken up with the fascinating work of producing hybrids.

The early work accomplished in this particular section was principally that of crossing two species merely for the purpose of making a hybrid, and this was frequently a bad one. Experience has done much towards the formation of better results, and hybridists now work with a definite object in view, namely, that of producing either finer varieties of the early made hybrids or those which, by the correct blending of certain characters, are adjudged to be either distinct to, or more beautiful than any that have previously been seen.

It is this production of beautiful hybrids

which is studied at Chessington, where nine houses are completely filled with various hybrids in all their stages of cultivation.

There are certainly a few species to be seen, but these are the very fine varieties which have been purchased to act as parents to the multitude of minute specks of vegetable life which, when old enough, will display to a very large extent the good qualities of the flowers of their parents. No crosses are made without previous consultation and careful searching of records, the final decision resting with Mr. Thwaites, who selects or purchases for the purposes in hand.



*Richd. G. Thwaites, Esq.*

The interesting part of actually making the crosses is entirely done by Mrs. Thwaites, and when the period of time requisite for the necessary completion of growth has elapsed she frequently has the pleasure of admiring the results of the work commenced several years ago. These results not unfrequently give disappointment, for the laws of nature, being firmly set, frequently step in and prevent the accomplishment of the desired

result. Nevertheless, by studying these adverses we learn the peculiarities of the plants, and by so doing success comes the sooner.

The Odontoglossum house contains many of the largest size plants, the centre staging having recently been lowered to prevent the tall spikes of the Edwardii crosses from being

d a m a g e d through coming in contact with the roof. This species has been crossed with crispum, and in the hybrid, known as O. Thompsonianum, the colour is either formed into spots or blotches, or entirely suffused. The variety illustrated shows a dark-claret blotched flower, the margin being of a magenta-rose tint. In O. Clytie (Edwardii × Pescatorei) the spike is more inclined to

branch, and the purple pigment is slightly suffused around the darker spots.

The side staging is occupied with other interesting Odontoglossums, the best being O. eximium, in which the heavily blotched crispum Boltonii was used; O. McNabianum; the elegant O. Thwaitesii (Harryanum × ardentissimum); the scarce O. Blackii (Rossii × Pescatorei); and many others. A special feature has been made of collecting fine varieties of Odontoglossum Rossii rubescens, these are being used for carrying seed pods.

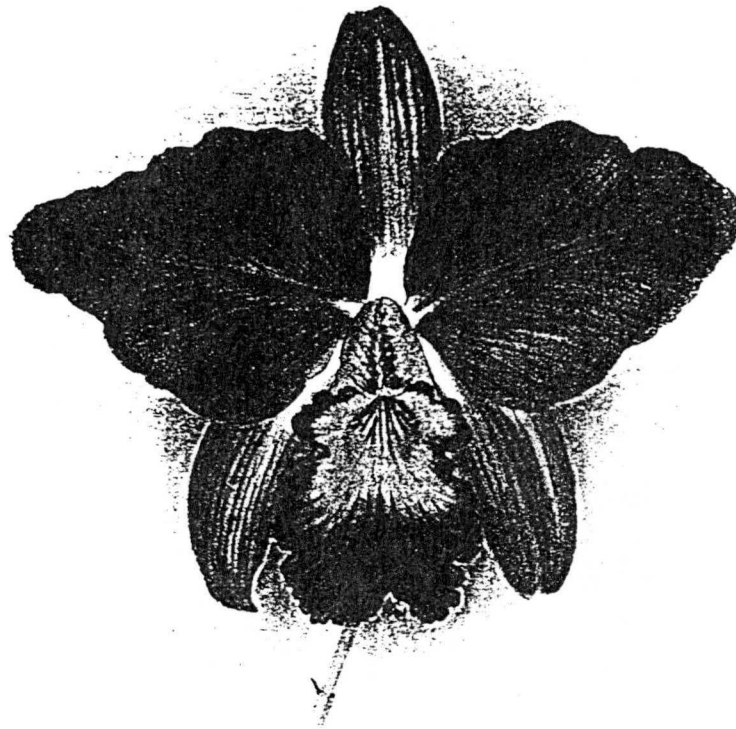
It is worthy of note that Odontoglossum maculatum has been crossed with success in a number of instances.

The Odontiodas are well represented, and include Thwaitesii, Boltónii, Wilsonii, Charlesworthii, and the new Latona (Bradshawia × Harryano-crispum) and Eva May (vulcanica × percultum). O. Cecilia, O. Zephyr, and

many others were first raised in this collection. Some interesting seedlings which have just been pricked off the seed pans are the result of crossing Odontioda Thwaitesii with Odontioda Bradshawia. It should be noted that O. Thwaitesii is the most strongly characterised of the vulcanica hybrids.

A smaller house is practically filled with hybrids of Sophronitis grandiflora,

the collection of these being, probably, the finest in the country. The varieties principally specialised in being: S.-C. Doris (S. grandiflora × C. aurea), S.-C. Thwaitesii (S. grandiflora × C. Mendelii), and S.-C. Blackii (S. grandiflora × C. Hardyana), this latter cross being considered the best primary Sophro-Cattleya yet raised. Very little seed is formed in the pods of these hybrids, and considerable difficulty is experienced in obtaining secondary hybrids.



*Sophro-Cattleya Thwaitesii* (*S. grandiflora* × *C. Mendelii*).  
F.C.C., R.H.S., March 9th, 1909.



A rare hybrid may be seen in Sophro-Cattleya Queen Empress, the result of crossing *S. grandiflora* with *C. Mossiæ*. Only one plant of this hybrid seems to have been ever flowered, and this was exhibited by Messrs. Veitch, in 1899, ultimately finding a home in the Dell collection. A hybrid of great promise is Sophro-Cattleya Doris crossed with *Cattleya Fabia*. Another is *Lælia pumila alba* with *Cattleya aurea*, a white sepalled and petalled flower being anticipated from this cross. There are also a few *Cymbidium* seedlings which grow well in this house.

The large *Cattleya* house contains an immense number of the principal *Cattleya* and *Lælio-Cattleya* hybrids, the majority being of flowering size. *C. Iris* (*bicolor* × *aurea*) and *C. Adula* (*bicolor* *Grossi* ×

*Hardyana*) are two of the best hybrids which have been made from the long-bulbed section of *Cattleyas*, the latter hybrid being particularly good on account of the broad lip possessed by the variety of *bicolor* used.

Many hybrids have been made from *Cattleya aurea*, one of the most distinct being *C. Maggie Raphael alba* (*aurea* × *Trianae alba*), a beautiful pure-white sepalled and petalled flower having a purple lip veined with gold. Other hybrids of *aurea* include: *C. Octave Doin*, *C. Hardyana*, *C. Empress Frederick*, *C. Fabia*, and *C. Leda*. Even

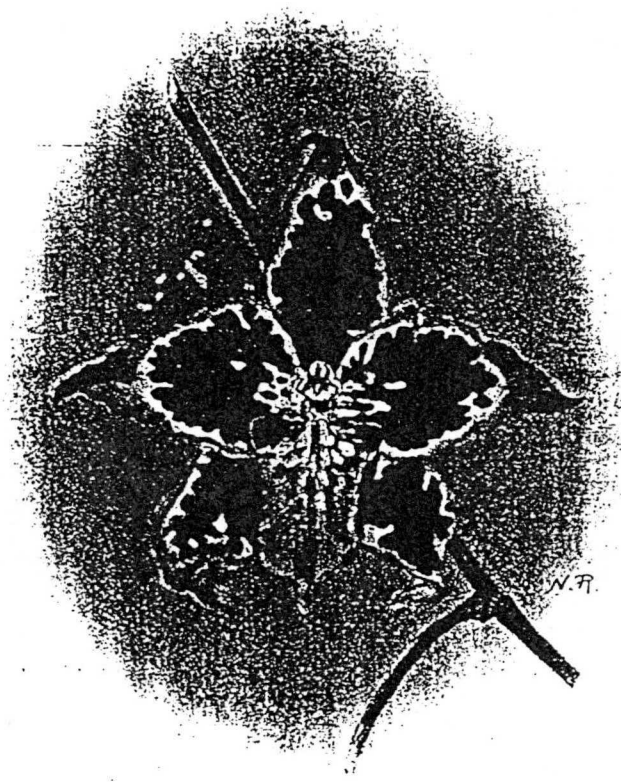
better results are still expected from the use of *Cattleya aurea*, so this species is being continually used for hybridisation. Several of the finest forms of other well-known species are being self-fertilised, as it is hoped that at least a few seedlings from these pods will be of very special merit.

Efforts are also being made to create superior forms of the earlier crosses of *Cattleyas* and *Lælio-Cattleyas* by using parents of only the finest kind. It is now becoming very difficult to create crosses which have not been previously made.

Many disappointments have been met with in the attempts to raise albino *Cattleyas* from seed, the majority reverting to the typical coloured form. Success has, however, been achieved in *C. labiata alba* and *C. Mossiæ*

*Wagneri*. *Cattleya Dusseldorfei Undine* is another beautiful white hybrid resulting from the crossing of *Cattleya intermedia alba* and *Cattleya Mossiæ Wagneri*, the Chessington strain of this hybrid being particularly good in point of substance and shape.

Another spacious house, which is devoted to *Cattleyas*, contains a number of vigorous plants of *Cattleya Blackii*, the result of crossing *C. Gaskelliana alba* with *C. Mendelii alba*. All the flowers of this hybrid are of a delicate pink colour, and, so far, no pure-white ones have appeared. A similar instance



*Odontoglossum Thompsonianum* (*O. Edwardii* × *O. crispum*).



occurred in *C. Harrisoniana alba* × *C. Gaskelliana alba*, the flowers being also of a delicate pink colour.

Considerable attention was at one time devoted to *Dendrobiums*, but only the best yellow flowered varieties are now taken note of. *Dendrobium Chessingtonense* (*aureum* × *Wiganiæ*) is one of the most important additions to the yellow section, and the same remark applies to *D. atro-Brymerianum*, an interesting hybrid between *atro-violaceum* and *Brymerianum*. *D. Rœblingianum* and *D. Wiganiæ album* are included in the four which have received Awards of Merit at the Royal Horticultural Society. *Dendrobium nobile virginale* has been raised true from seed, the flowers of all the seedlings being pure-white.

The seedling house contains a number of pans in which the seedlings germinate with astonishing rapidity, and also some propagating cases in which the small pots containing the pricked-out seedlings are placed for a short time. After a few days these pots are taken out and placed on the usual staging. It is interesting to note that *Odontiodas* and *Odontoglossums* can only be raised by sowing the seed on the surface of the compost in the pots in which seedling *Odontoglossums*, etc., are growing. Some of the crosses germinate much quicker than

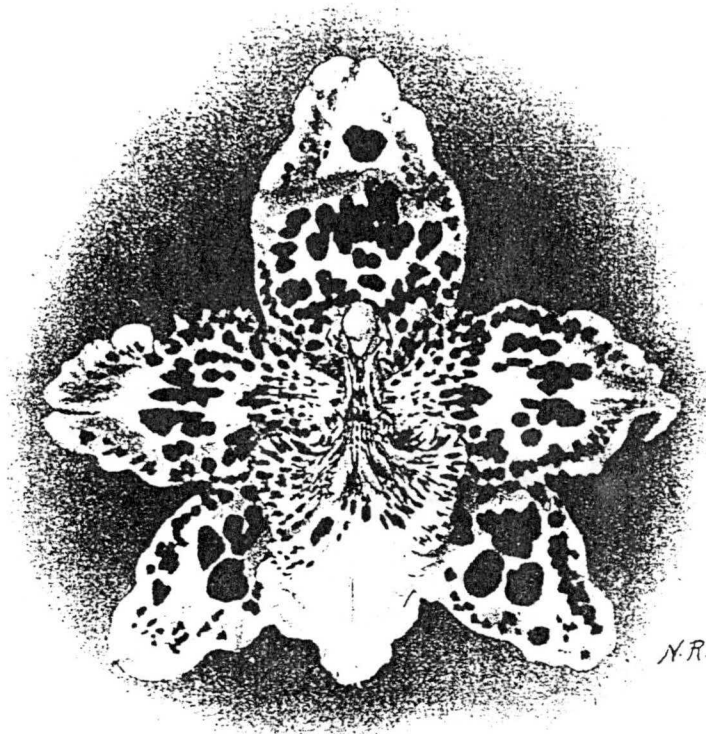
others; some seedlings of *Odontoglossum Clytie* × *O. eximium* having been pricked out after the seed has only been sown four weeks. *Odontoglossum Pescatorei* × *Oncidium crispum* is an exceedingly slow grower, and will probably take many years of careful culture before a flower spike will be produced. One odd seedling has assumed a tufted habit of growth, no less than ten growths are being produced from the small central seedling growth.

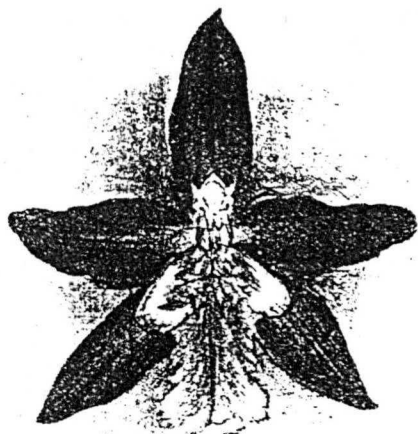
There are very few *Brassavola* hybrids which have not been raised at Chessington. Many excellent results have been produced, the most beautiful being B.-C. Mrs. J. Leemann (*B. Digbyana* × *C. aurea*), the combination of the fringed lip with the rich purple-crimson of the *aurea* being particularly attractive. *Brassolælia Thwaitesii* is a curious and rare hybrid

between *B. Digbyana* and *L. grandiflora*, the latter parent being also known as *L. majalis*.

It remains to be said that Mr. Thwaites has been an enthusiastic Orchid fancier for some twenty years, and that he was elected a member of the Orchid Committee of the Royal Horticultural Society in 1904, since when he has been a regular attendant.

Close application and enthusiasm are essentials of the successful Orchid grower, and both these Mr. J. M. Black has got in a high degree. This collection has risen





*Odontioda Thwaitesii*  
(*C. vulcanica* × *O. Harryanum*).

to its present eminence under his care and cultural skill, and we are sure that under his guidance it will not fall behind. Mr. Black has an interesting pen, and many of his methods of culture and ideas on hybridisation have been clearly stated in the different articles written by him and published in this journal.

G. W.

## NEW PLANTS.

**LÆLIO-CATTLEYA MARGARET HYLAND** (L.-C. OPHIR × *C. MOSSIÆ* WAGNERI).—The flower is of medium size, the broad sepals and petals being purple-mauve; the lip is similar in colour, with a bright golden throat. Raised by Messrs. Sander and Sons, and named in honour of Miss Margaret Hyland, Woodlands, London Road, St. Albans. This hybrid is of interest, for *Lælio-Cattleya Ophir* is a hybrid derived from *L. xanthina* × *C. aurea*, both of which have golden-yellow sepals and petals. The albino form of *C. Mossiæ* has had little influence, for, as might be expected, reversion to the normal coloured form has taken place, the hybrid having purple tinted sepals and petals. Several other seedlings from this

pod have also flowered; they show some variation in the degree of coloration, but, so far, not one has flowered having either pure-white or yellow petals.

**CATTLEYA ALCIMEDA** (GASKELLIANA ALBA × LABIATA GILMOURIÆ).—A fairly large flower with pure-white sepals and petals, the lip having the purple blotch of the labiata parent. Raised by Messrs. Charlesworth, and considering the number of hybrid *Cattleyas* which have been produced, it is strange that these two species, so frequently seen in almost every collection, have not been crossed before.

**LÆLIO-CATTLEYA CYMBELINE** (*C. MENDELII* × L.-C. HIGHBURYENSIS).—Flowers somewhat drooping in habit, of a fleshy-yellow colour, the sepals and petals marbled with rose-purple, the lip purple-blotched with a yellow throat slightly veined. Exhibited by Messrs. Sander and Sons, at the Royal Horticultural Society, June 20th, 1911.

**SOPHRO-LÆLIO-CATTLEYA ELISSA** (S.-L. GRATRIXIÆ × *C. HARDYANA*).—The former parent of this hybrid is the result of crossing *Sophronis grandiflora* with *Lælia tenebrosa*, and the latter is *Cattleya aurea* × *gigas*. The showy flowers are coppery-red and somewhat similar to *Sophris Lælia Nestor*, a hybrid obtained by crossing *Cattleya Dowiana* with *Sophris Lælia Gratrixæ*. It was exhibited by H. S. Goodson, Esq., at the meeting of the Royal Horticultural Society on August 1st, 1911.

**ODONTIODA EVA MAY** (*COCHLIODA VULCANICA* × *ODONTOGLOSSUM PERCULTUM*).—This pretty little bigeneric hybrid is composed of one-half *C. vulcanica*, one-quarter *O. Pescatorei*, and one-eighth each of *O. Harryanum* and *O. crispum*. It is almost identical in colour to a typical *Charlesworthii*, being a rich yellow-red, and the colour is entirely solid throughout except for the clear yellow crest and glimpses of the same colour on the tips of the lateral sepals. The shoulders of the perfectly pandurate labellum are tilted upwards at the extremities, and the margins of the sepals and petals are evenly undulated. It is remarkable as being the first *vulcanica* hybrid to throw this colour,

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## THE CULTIVATION OF ODONTOGLOSSUM CRISPUM.

COLOMBIA has yielded many *Odontoglossums*, some of great beauty, others of botanical interest, and a few of comparative rarity. Although our special attention may be devoted to any one of these classes everyone will agree that, for general purposes, *Odontoglossum crispum* easily holds the premier position among cool house Orchids. The great utility of the flower spikes for decorative purposes, the comparative ease with which the plants can be collected, and the somewhat low temperature required for their cultivation are factors which have assisted in making this species extremely popular.

The plants are collected by natives in the various districts surrounding Bogota, at which place they are stored until sufficient numbers have been procured for shipment abroad. The early importers fastened the plants around stout sticks which were afterwards secured in large packing cases in such manner that no two plants touched each other. This method, although fairly successful, did not allow of many plants being packed in a case. The practice of recent years has been to carefully prepare the plants by cutting off all roots and leaves, and to place them in layers, using dried bracken fern as packing material, in stout cases. For some unexplained reason the largest plants were often placed in the centre of the box where there was little ventilation, and when any delay on the journey occurred these were the first to die; probably the extra amount of moisture in these large-bulbed plants was responsible for their rapid decay. Three cases usually contain one thousand plants.

Of late years not many importations have reached this country, and the few plants occasionally received have been rapidly dispersed to various amateurs. The plants, after their six or eight weeks' journey in close confinement, arrive in a delicate condition: sometimes the majority are dead and half-rotten, at other times almost all are alive, much depending on the season of the year and the length of time occupied in transit.

The plants, as soon as unpacked, should be carefully protected from direct sunlight by either placing them in a heavily shaded house or else by laying them on the staging and covering them with sheets of paper. All dead leaves and other waste material often found adhering to them should be carefully removed. No water will be required for the first few weeks, the atmospheric moisture of the house being quite sufficient during this period.

The new growth is often hidden beneath one of the dry side leaves and should be carefully handled, for it is very fragile. The best plan is to split this dry leaf down the middle and carefully remove each half separately. The new roots will then be produced more easily and will have nothing to prevent them at once entering the compost. After a short time the plants may be accustomed to more light and finally placed among the established plants where the usual growing conditions prevail.

Potting the plants will next occupy the grower's attention. One cannot be too careful in selecting a pot of suitable size, that is, one which will just allow room for a new bulb to be made. It must be remembered that in the first potting the whole of the compost is new and will be quite sufficient for the plant during the first twelve months. If too large a pot is used to start with the surplus compost rapidly becomes sour and is a danger to the health of the plant. A well-rooted plant absorbs a large amount of water from the compost and effectually prevents it becoming stale. Another point to remember is that all roots must have air, consequently they are quite unable to enter a solid mass of material such as is often seen when the compost has been too firmly placed in the pot. The majority of the roots of an established plant may be seen growing round the outside of the ball of compost, for it is between this material and the inside of the pot that they can secure the most airy position suitable to their requirements.

At the conclusion of about twelve months' growing the majority of the plants will have

filled their pots with roots and will require further attention. Although no plant should remain for long in a starved condition there is undoubtedly a season for every Orchid when this operation of re-potting may be best accomplished.

For the most successful cultivation of *Odontoglossum crispum* the plants should be divided into two sections, according to their size. All plants in less than four inch pots should be cultivated under "growing" conditions, and those in larger pots under "flowering" conditions. Some further explanation is probably needed. Small plants are of little utility, either for sale or for providing flower; these must, therefore, be grown on as rapidly as possible. Large plants are expected to yield decorative results, and the treatment accorded should be such that every encouragement is given them to produce good spikes of flower, and these of lasting quality and good substance.

The growing treatment. The potting material should be fairly loose, and consist of about one half of either peat, osmunda, A.I. fibre, or polypodium, or a mixture of several is somewhat better, and about one quarter sphagnum moss and one quarter oak or beech leaves. The whole should be thoroughly mixed and chopped up; a good method is to run it through a chaff-cutter. This compost should be lightly worked in to within about half an inch of the top of the pot, the surface may be either trimmed with a pair of scissors or else covered with a layer of finely chopped sphagnum moss. By damping the compost before use it will be found to be much more pliable and less likely to damage the tender roots of the plant.

The potted plants should be placed in a shady house where there is an abundance of moisture and a minimum temperature of 50 degrees. If the leaves assume a bronze or purple tint it is a sign that they are receiving too much sunshine. Plants which are grown in an airy and bright position ripen their bulbs to such a degree that they become hard, and make very slow growth afterwards. The floor, staging and all exposed material in the house should be frequently damped down;

and on all favourable occasions the plants should be lightly syringed overhead. Any flower spikes should be pinched out as soon as they appear, but if the owner is very anxious to see the variety of the plant, then the flower spike may be disbudded, leaving only one or, at the most, two buds. By this method of cultivation the plants will make three bulbs, each one considerably larger than the last, in the course of two years.

The flowering conditions are somewhat more easily maintained, for the pots, being larger, will require less water, and the atmosphere need not contain quite such a constant supply of moisture. The compost must be of a firmer and more substantial nature, one that will last a year, or in the case of very large plants two years. The difficulty of obtaining really good peat is yearly increasing; its place has, however, been taken by other materials which yield excellent results. In the majority of collections these results are considerably better, and there is no doubt that much of the improvement in the cultivation of this species is due to the more suitable composts which are now obtainable.

There are one or two methods of potting that have given excellent results and leave little room for further experimentation. Break or cut the peat or other fibre in lumps about the size of hen's eggs, and carefully shake out all surplus dust. After placing a few crocks at the bottom of the pot work in the lumps of fibre with a potting stick, using at the same time a liberal supply of sphagnum moss to fill up the crevices.

Another method is to make a mixture of one half osmunda, one quarter polypodium, and one quarter sphagnum. This is used to fill up the larger part of the pot, the top inch or so of space being afterwards filled up with A.I. fibre and sphagnum moss fairly well compressed. Finally, the surface may be trimmed with a pair of scissors. This method has a very neat appearance and seems particularly beneficial to the young roots, which much dislike entering a rough, dry lump of osmunda fibre. When, however, the osmunda lumps are beneath the surface they rarely become so dry as to be distasteful to



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the roots. The covering of the surface with a layer of sphagnum moss alone is not recommended for large plants, for when so done the air has little chance of entering the compost, and it has previously been mentioned that Orchid roots have a strong dislike to a sodden, solid material.

Large plants may always be subjected to

a lower temperature during the dull winter months. With a somewhat dry condition of the atmosphere a minimum of 45 degrees will do no harm. Any slight condensation, due to an excess of atmospheric moisture, will do no harm to the plants, but it may produce an unsightly spotted condition of any open flowers.

## CALENDAR OF OPERATIONS FOR NOVEMBER.

By J. T. BARKER, The West Hill Gardens, Hessle, E. Yorks.

THE Orchid grower has now reached the most difficult month in the whole year with which to contend, the climatic conditions being so varied and the changes so rapid that his skill and patience will often be taxed to the utmost.

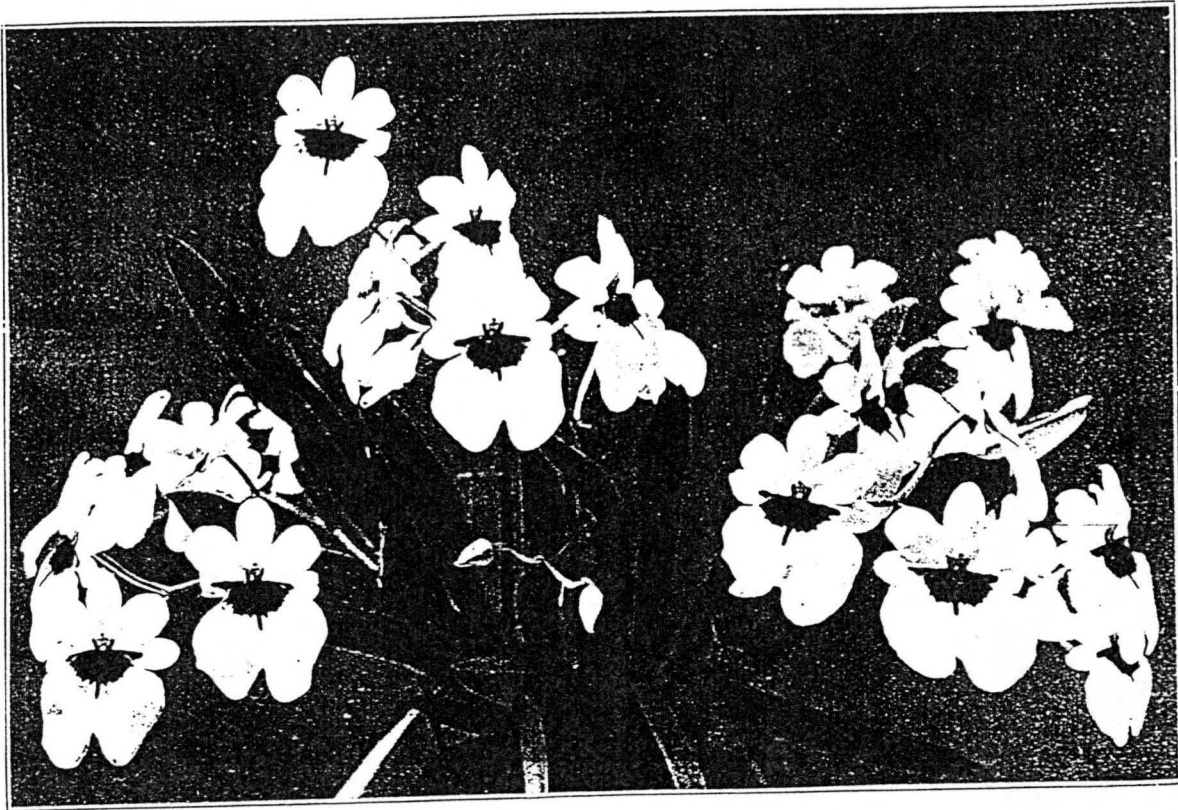
The temperatures given last month for the different departments should be maintained to the end of the year. In the case of extremely cold weather prevailing a fall of a degree or two will do no harm, but excessive fluctuations are most harmful. Clear frosty weather, if accompanied with sunshine, is most beneficial, but dull, moist, foggy weather may do irreparable harm if the temperature is allowed to fall too low. Cultivators who reside in districts where November fogs are unknown can hardly realise the damage that is done to collections situated on the outskirts of large cities.

Ventilation is one of the most essential things in the cultivation of all plants in glass houses; every effort should be used to ensure daily ventilation. It is often advisable to use slightly more fire heat to allow one or more ventilators to be opened, and with a little thought it is astonishing what can be accomplished even in this small matter. I am thoroughly convinced that it is in these small details where many amateurs often go astray.

Watering the plants at this season will need careful attention; not only must the wants of the plant be studied but also the nature of the compost in which it is growing, for some composts retain moisture for a much longer period than others. In every case the cultivator should be quite certain that the plant requires water before applying it. I am no

believer in dribbling water upon any plant; if it is not dry enough to receive a good soaking leave it until the following day, it will take no harm. The dribbling process is injurious to any plant, and, to my mind, doubly so in the cultivation of Orchids.

Dendrobiums of the spring-flowering section will by this time have finished their growths, and should be thoroughly cleaned and placed in their resting quarters. Give them a position where they may receive all the light possible. When these plants are at rest only sufficient water should be given to prevent the bulbs shrivelling; if this occurs, or their foliage is lost, the constitution of the plants suffers to such an extent that they are frequently worthless. *D. Dearei*, if still in full growth, should have every encouragement possible. A shady position in the stove or East Indian house answers its requirements, and no Orchid more fully repays one than this species, for when well grown its pure white flowers last practically through the summer months. *D. Phalænopsis* and *D. formosum*, as they finish flowering, should be induced to take a decided rest, and for this purpose they should be removed to a slightly lower temperature. A sunny position in a warm *Cattleya* house will suit them well during the winter months; they should only receive sufficient water to keep the bulbs plump. *D. Jamesianum* and *D. infundibulum*, which have been growing in the cool house, should now be removed to the cool end of the intermediate house, which will suit them much better than if allowed to remain in the cool house during the winter months.



*Miltonia vexillaria* G. D. Owen, a fine specimen with 8 spikes and 33 flowers, in the Westonbirt Collection.

## MILTONIA HYBRIDS.

THE present time is but the commencement of an important advance in the breeding of Miltonias, more especially those of the vexillaria, Rœzlii, and Phalænopsis section. One curious and unexpected result appeared when the seedlings of Miltonia Bleuana (vexillaria × Rœzlii) first began to flower, for in almost every case the blooms on this hybrid were much larger than those of either parent. It is generally noticed that the flowers of primary hybrids are intermediate in size, but in this case the fusion of two somewhat similar species produced a hybrid giving flowers with a marked increase of size. This rare and unaccountable result came as a welcome surprise, and was one of the encouraging factors that led to the present interest in the genus.

One of the next steps taken by the hybridist was to cross Rœzlii with Bleuana, making Miltonia St. André. Good results were again obtained, although no further increase of size took place. Another success was brought about by crossing Bleuana with vexillaria, producing the hybrid known as Hyeana. In Bleuana Peetersiæ we have an elegant addition produced by mating two distinct varieties of Bleuana. Two more hybrids can be added to the list, viz., Sanderiana (St. André × Bleuana) and Jules Hye de Crom (Hyeana × vexillaria). A very beautiful variety of the latter was exhibited at the Chelsea International Show, 1912.

All the above hybrids are formed by various crossings of vexillaria and Rœzlii, and it may safely be stated that continued success will be obtained by continuing the process, taking care on each occasion to use only the finest

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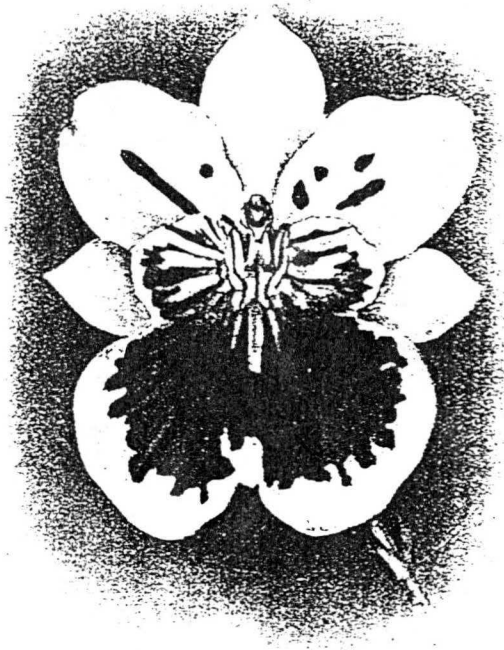
and most distinct varieties. The difficulties of nomenclature are with us again, for while it may be possible to apply a new name to every successive step the hybridist takes, it will, in the near future, be quite impossible to determine under which name a plant is to be placed, should it by any chance lose its label or appear as a stray seedling. The simplest way out of the difficulty appears to be to call every hybrid containing only vexillaria and Rœzlii, no matter in what proportion, by the name *Bleuana*, and to add varietal words to distinguish the various forms.

Now, seeing that between thirty and forty varieties of *Miltonia vexillaria* have been certificated by the Royal Horticultural Society as distinct forms, there is evidently plenty of material for the hybridist to work from. The variety of vexillaria known as G. D. Owen at once comes to the front as a suitable plant, and the more one studies this flower, so much the more remarkable does it appear. The large, dark crimson blotch on the crest portion of the labellum is a great attraction, and it is the further development of this feature that hybridists are working for. The origin of this elegant blotch of colour seems beyond hope of discovery. It is, however, quite permanent, reappearing on the flower of the same plant year after year with never-failing accuracy. Its nearest relation is vexillaria *Leopoldii*, but strange to say, this usually flowers in the autumn, and therefore, is not always available for use when other vexillarias are in flower. The variety of *Bleuana* known as *Stevensii* was produced by its use.

*M. vexillaria chelseaensis* is another variety with the labellum marked with crimson-purple, the blotch having radiating lines which are extended by means of various sized spots of similar colour. At the recent Ghent Show a promising seedling between G. D. Owen and *chelseaensis* was exhibited by Messrs. Charlesworth, and although the well-defined blotch was not quite so large as that of the former parent, it proved that it is capable of being transmitted to the offspring.

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A careful survey of a large number of flowering plants of vexillaria will show how very seldom any depth of colour, other than yellow, appears on the crest area of the labellum. The species is so constant in form and coloration that any variation may be taken as a rarity worth further cultivation. However, now and again a rich rose coloured form appears, and in almost all of these it is noticed that the crest area on the labellum



*Miltonia Phalaenopsis* "McBean's var."

still remains in its typical yellowish-white state. It is on account of this apparent impossibility for the yellow area to acquire any other colour that the remarkable blotched forms of the G. D. Owen type make such a lasting impression of wonderment upon the minds of the specialist. How, or by what means, this blotch was first developed will probably always remain an unsolved mystery. An homologous example is *Odontoglossum crispum solum*, figured in *ORCHID WORLD*, Vol. II., p. 249, although in this plant the



suggestion has been put forth that the blotch on the crest area is due to the ancestral influence of *Odontoglossum Lindleyanum*, which seems very feasible.

*Miltonia Phalænopsis* has not yet received the attention that it apparently deserves. There is a wide future open to the hybridist who can enlarge the area of the colour blotching on the labellum of the *vexillaria*s, and there is every good reason to believe that it can be accomplished by the use of *M. Phalænopsis*. The illustration which we give is of a very fine variety in which the blotching is developed to an unusual extent, although even in the ordinary typical forms there is a considerable amount of purple pigment displayed in various parts of the labellum. The special use which *M. Phalænopsis* will be to the hybridist lies in the extended area of its blotching. It does not require much imagination of the mind to picture what a beautiful result would be obtained if the characters of *vexillaria G. D. Owen* could be combined with those of McBean's variety of *Phalænopsis*.

*Cochlioda Nœzliana* must also be considered, for its influence has already been seen in *Miltoniodes Harwoodii* (*M. vexillaria* × *C. Nœzliana*), and others. It will be many years before a full size scarlet *Miltonia* of the *vexillaria* section is produced. At present we have only reached the first step towards our desired object. *M. Harwoodii* has a poor constitution, rendering it very difficult to cultivate, and the flower is somewhat lacking in substance. But, on the principle of nothing venture nothing have, the hybridist has already commenced a further advance, and before long we shall see a better result in a seedling produced by uniting *Harwoodii* with *vexillaria*, or with another flower of the same section.

It is somewhat premature to speak with much certainty as to the possibilities of uniting *Miltonias* of the *vexillaria* section with *Odontoglossums* of the *crispum* kind. So far, we have *Odontonia Ellwoodii Rœzlii* × *cirrhosum*), *Vuykstekei* (*vexillaria* × *amabile*), and *Firminii* (*vexillaria* × *crispum*). The

latter cross was only made to test the practical point of whether this hybrid could be produced, and on that account it was not thought necessary to use anything but ordinary varieties. But good and promising as the result was, it will undoubtedly be greatly improved when superior varieties are used, such, for example, as *vexillaria G. D. Owen* and *crispum Lucianii*.

### THE SANDER CUP GROUP.

THE illustration on page 205 shows the excellent group of Orchids exhibited by Mr. R. Brooman-White at the recent spring show of the Royal Caledonian Horticultural Society, and this being the third occasion on which the exhibitor has won the First Prize, the handsome 25 guinea Challenge Cup presented by Messrs. Sander and Sons now becomes his property.

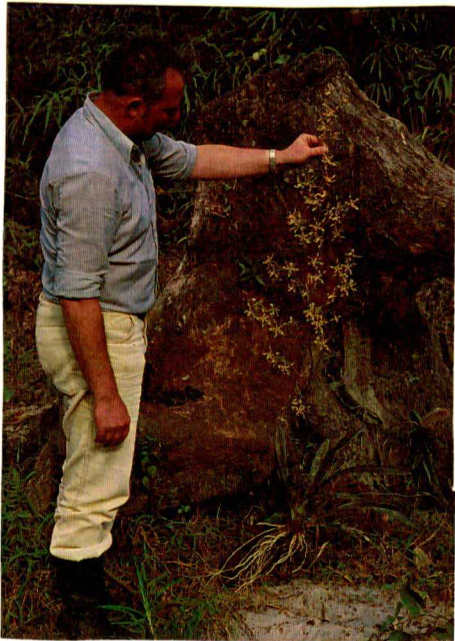
The group, occupying a space 12 feet by 6 feet, was tastefully arranged by Mr. Jas. Smith, who so ably cultivates the plants in the Arddarroch collection, and contained a most representative collection of spring-flowering Orchids, all of which were staged in a manner that clearly showed every plant to advantage.

The centre was composed of good varieties of *Cattleya Schröderæ*, distinct forms of *Cymbidium insigne*, *Lowianum*, and *eburneum-Lowianum*, while along the front row were various varieties of *Odontoglossum Rossii majus*, including *roseum*, and dark forms of *Miltonia vexillaria*. Distributed at different points of advantage were many fine spikes of *Odontoglossum crispum*, for which the Arddarroch collection is specially noted.

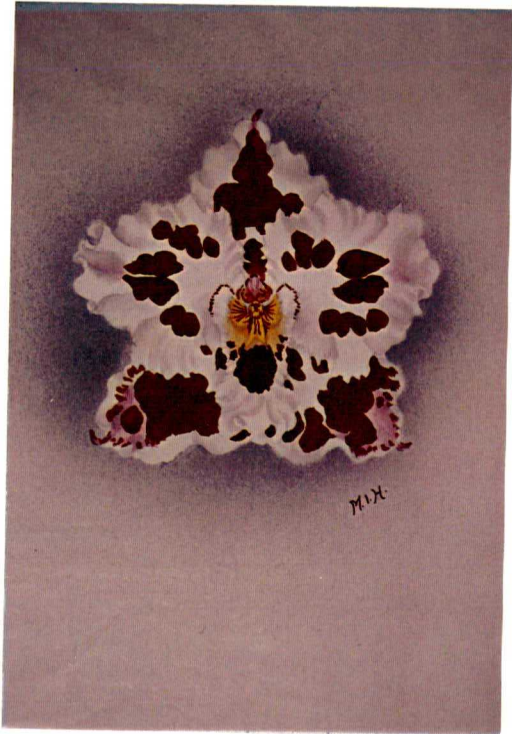
Cypripediums, including albino forms, and blotched *Odontoglossums*, both species and hybrids, were shown in fine style, and along the back row good plants of *Odontoglossum Edwardii* and several hybrids derived from this species, together with various *Epidendrums*, made up a very attractive exhibit. Mention must also be made of *Angræcum sesquipedale*, whose wax-like flowers with their long spur were a never failing cause of wonderment to the many who visited the exhibition.



**Odontoglossum povedanum**



Left: *Odontoglossum portmannii* photographed along the Guataco-Oriente road at 6,560 to 7,220 feet in Ecuador.  
 Opposite: *Odontoglossum juninense* from Oxapampa, Peru.

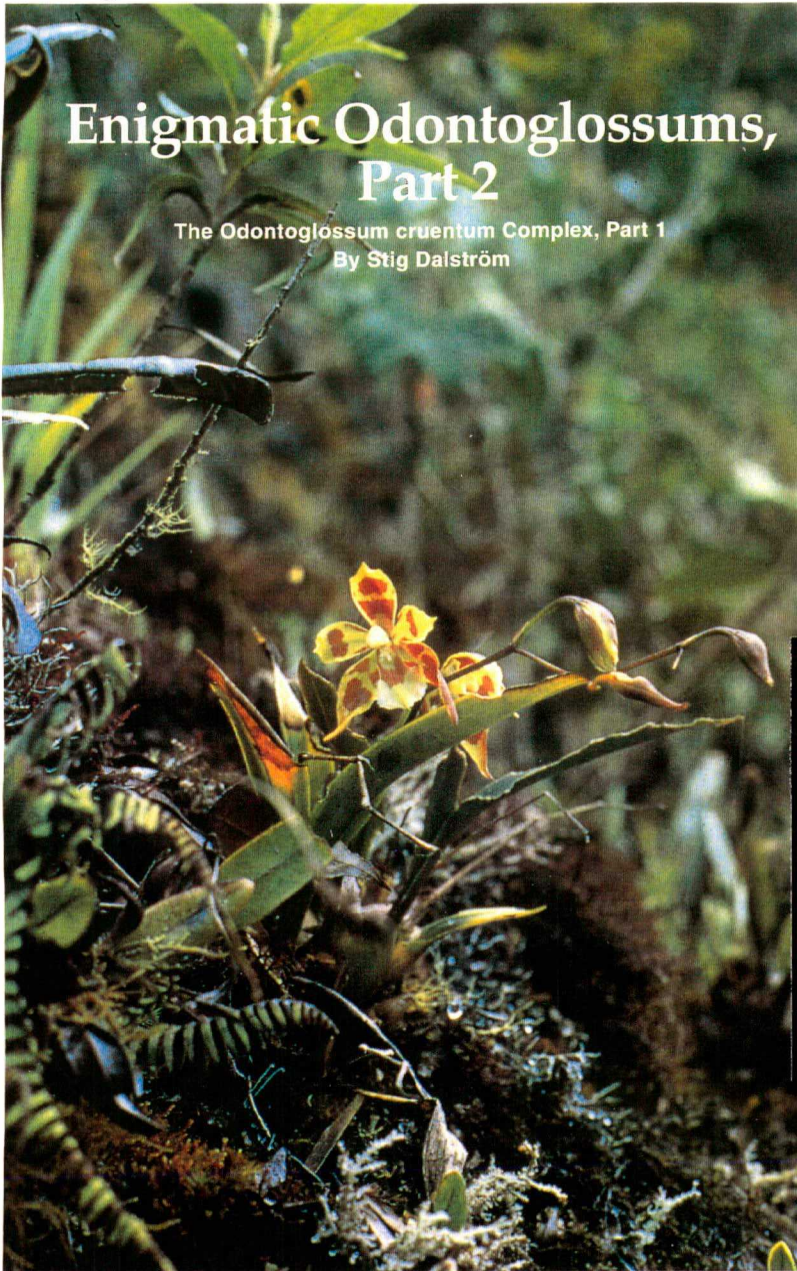


Odm. Nicky Strauss 'Deric' AM, February 1980



# Enigmatic Odontoglossums, Part 2

The *Odontoglossum cruentum* Complex, Part 1  
By Stig Dalström



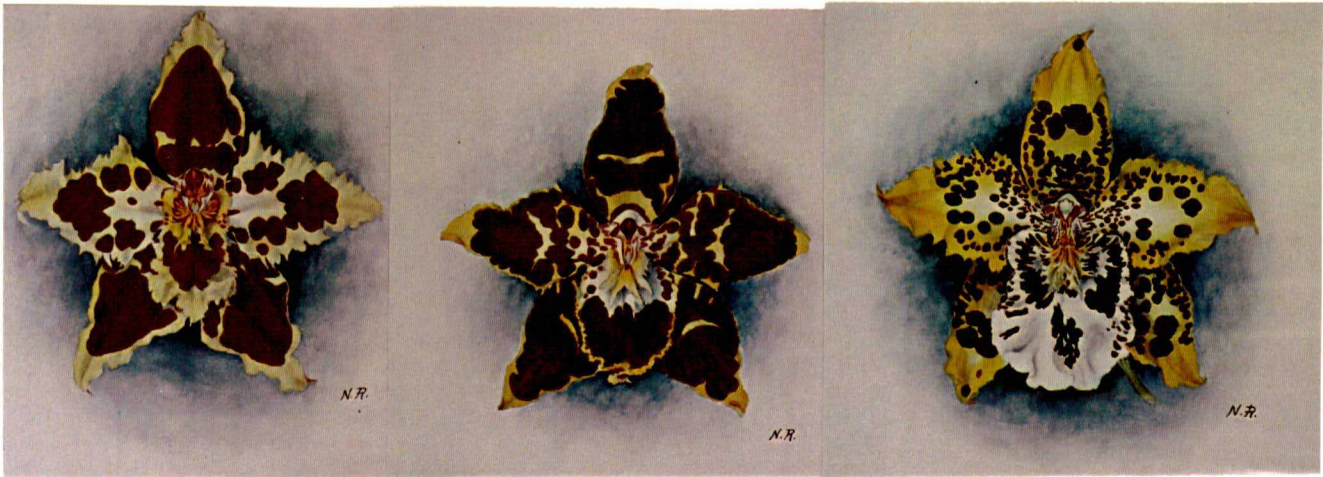
Above: The *Odontoglossum portmannii* shown on page 24 as it appears as a cultivated plant.



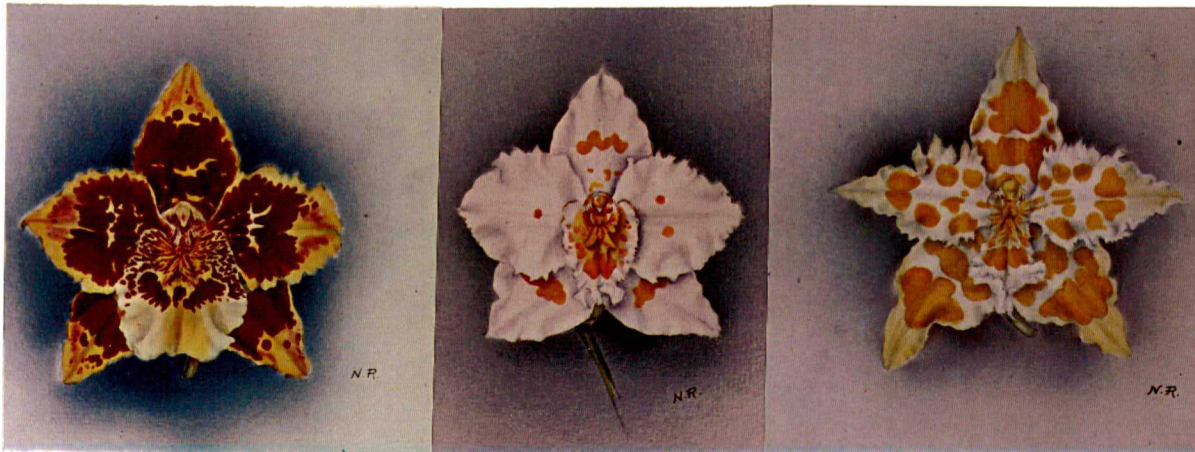
Opposite: This specimen of *Odontoglossum armatum* was collected at 7,220 feet in La Gallera, Cauca in Colombia.

Above: An *Odontoglossum cruentum*, from the Loja area, that resembles the drawing of *Odontoglossum juninense* in having slightly broader front lobes of the lip, but is otherwise the same.

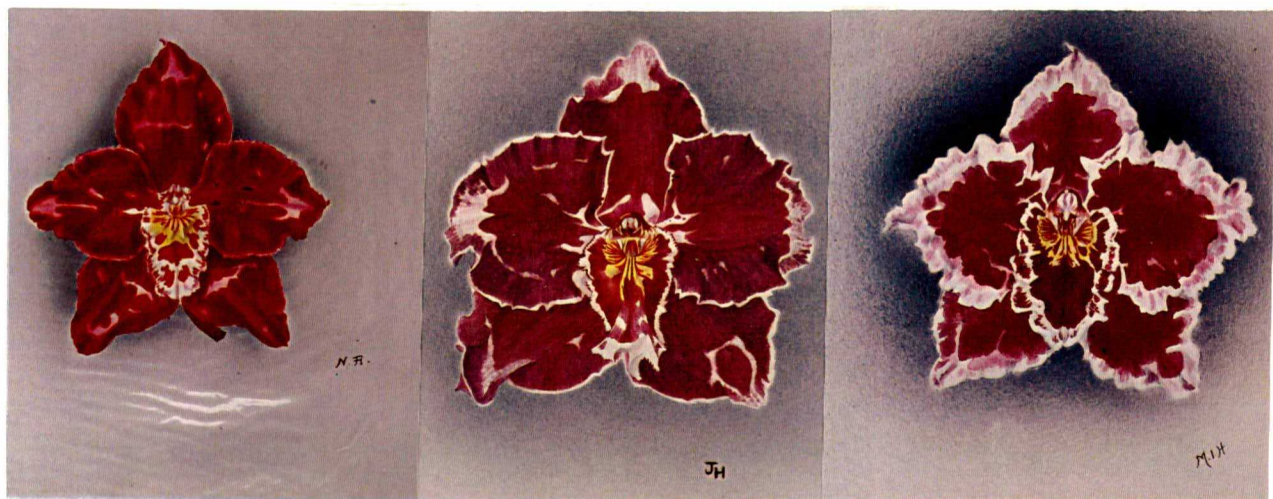




Odm. Wilckeanum 'Pittiae' FCC, March 1898 (left)  
 Odm. triumphans 'Crawshayanum' AM, April 1903 (center)  
 Odm. Wiganianum 'Superbum' FCC, August 1908 (right)



Odm. Lawrenceanum 'Cobbs' Variety' AM, April 1910 (left)  
 Odm. Promerens 'Xanthotes' FCC, June 1918 (center)  
 Odm. Xanthinum AM, February 1924 (right)



Oda. Colinge 'The Baroness' FCC, August 1928 (left)  
 Odm. Perolia 'Roke' AM, June 19663 (center)  
 Odm. Stroperry 'Lyoth Emir' AM, June 1964 (right)