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ODONTOGLOSSUM SUBULIGERUM, the oddest species in the genus

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Odontoglossum subuligerum Rchb.f., is one of the lesser known species in the genus. It was collected by Richard Pearce somewhere in southern Peru in 1876 (Bockemühl, 1989), and described by Heinrich Gustav Reichenbach in *Linnaea* in 1877 (1876, according to The World Checklist of Selected Plant Families). The name “subuligerum” most certainly refers to the subulate (awl-shaped) teeth of the lip-callus. No additional contemporary records or documentations of collections of this species have been located and *Odm. subuligerum* appears not to have existed in cultivation until more than a century later. The type specimen at the Museum of Natural History in Vienna consists of a simple raceme without flowers, and an envelope that contains a flower and a bud. Unfortunately, the column of the flower is pressed too hard and is rather flattened, hence not

showing any details. There is a drawing of the type at AMES (sheet 38557), however, which shows a different flower from an unknown location, but it reveals the details of the column and the lip-callus very well. This shows that *Odontoglossum subuligerum* is similar to plants that were found in the Chapare region in Bolivia in later years by several independent teams. It was then found in the Cuzco region in Peru by a team lead by Saúl Ruíz in 2011, and later again in the Puno region.

Leonore Bockemühl claimed that all known species of *Odontoglossum* Kunth were covered in her treatment of the genus (1989), including the elusive *Odm. subuligerum*, which was represented in her book by a plant from southern Colombia. This information turned out to be incorrect, unfortunately, and convinced Willibald Königler to describe a

rather different looking plant that was collected by Dieter Hauenstein in the Chapare region of central Bolivia, as *Odontoglossum hauensteinii* Königler in 1994. Karlheinz Senghas then described *Odontoglossum vierlingii* Senghas in 2000, based on a plant also collected in Bolivia but this time by Gerhard Vierling. Both these latter “species” are synonymous with the true *Odontoglossum subuligerum*. The plant that Bockemühl believed was identical with the type of this species is a geographic form of the variable “superspecies” *Odm. juninense* Schltr., which was not familiar to her at the time since no living plants had yet been rediscovered. Another form of this variable latter taxon was described by Bockemühl as *Odm. portmannii* Bockem.

In November of 2014 a team of *Odontoglossum* enthusiasts consisting of Steve Beckendorf, Guido Deburghgraeve, Howard Liebman, Saul Ruíz and myself went to the Puno region in southern Peru in search of large-flowered *Cyrtochilum* Kunth species among other things. In order to lure a hesitant Liebman to join our group in the first place we promised that he would see plenty of spectacular cyrtochilums. This turned out to be far from the truth as the most “spectacular” plant we had seen so far was a huge *Cyrtochilum cimiciferum* (Rech.f.) Dalström. That did not really count in Howard’s eyes since only the plant was large and the flowers were small and rather insignificant. After a couple of very strenuous day trips using the town of Sandia as a home base we eventually decided to try out a narrow and dangerous-looking dirt track that zig-zagged up one of the steep and completely deforest

ed mountain slopes. Perhaps there would be some forest left somewhere on the other side of the mountain, if our vehicle could make it there. We



Photo by Stig Dalström

An inviting population of *Bulbophyllum weberbauerianum*.



Photo by Stig Dalström

The attractive flowers of *Bulbophyllum weberbauerianum*

made stops here and there whenever somebody spotted something worthwhile and one of these occasions revealed a healthy-looking population of the attractive *Bulbophyllum weberbauerianum* Kraenzl., growing lithophytically on a man-made stone wall. Nobody thought twice about stepping up among the boulders and the weeds along the road side to get a better view for the cameras. Something we had a reason to reconsider later on.

A bumping while later we reached the end of the track



Photo by Saul Ruíz

The small town of Sandia is an acceptable home base for botanical explorations.

next to a rushing river so we decided to look around and see if we could spot any remaining forest at all in the neighborhood. High above the valley bottom and on the cloud covered ridges we discovered that there actually was some forest left and from the looks of it we assumed that it could be old. There was no



Photo by Stig Dalström

Cyrtochilum graciellae, the only large-flowered *Cyrtochilum* we could find in 2014

other way to get there than to follow Saúl and crawl up through the dense scrub and weed vegetation, something Saúl does very well but which we “city slickers” are not so skilled at. Unfortunately, Guido’s stomach did not feel well at this moment so he decided to stay by the car while the rest of us began the tough hike up the mountain slope. We managed to reach the older forest after about an hour’s climb and were rewarded right away by the long and wiry inflorescence of a *Cyrtochilum graciellae* Dalström, carrying numerous yellow and brown-spotted flowers. It was the first large-flowered *Cyrtochilum* of the “*Oncidium*” type that we had seen throughout the entire trip so Steve, Saúl and I were relieved that Howard at last was able to see one species in bloom. Other than that not much was in flower except a *Telipogon* Kunth and an occasional *Epidendrum* L. But there were lots of different plants without flowers and a frequent species definitely represented an *Odontoglossum*. The plants carried no flowers at this time of the year but plenty of seed pods, which is unusual for *odontoglossums*. After some musing I concluded that it had to be *Odontoglossum subuligerum*. This was a great discovery but at the same time very frustrating because there



Photo by Stig Dalström

Steve Beckendorf in the elfin forest

were no flowers present. We would have to return during a different time of the year in order to have a chance to see flowering plants in the wild. While driving back to Sandia in the late afternoon the ever eagle-eyed Saúl suddenly jumped in his seat and shouted something. He had discovered a very large and muscular rattlesnake that was crossing the dirt road in front of us and just where the *Bulbophyllum* population was. We all scrambled out to take some photographs and managed to get some good close-ups before our slithering friend took shelter underneath a protruding rock. The identification was



Photo by Stig Dalström

Howard Liebman looking for cyrtorchilums

easy since only one super-species of rattlesnake is reported from South America. The name suits this impressive and extremely dangerous reptile very well: *Crotalus durissus terrificus* Laurenti.

Photo by Stig Dalström



Crotalus durissus terrificus, a suitable name for a formidable reptile

The return trip finally happened in April of 2017. The journey back to Sandia was just as long and boring as the previous one, but when we reached the high altitude little town and settled in at the same hotel we had stayed in before we got a nice surprise. The hotel had installed hot water showers in some of the rooms. Big difference! After some

Photo by Saúl Ruiz



The 2017 team: Guido Deburghgraeve, Karel Deburghgraeve, Mathieu Flausch and the author

quite successful daytrips in various directions we decided to try and find *Odontoglossum subuligerum* again and this time hopefully in bloom. We saluted the *Bulbophyllum* plants as we passed the stone wall but this time we did not bother stepping out of the car because we had a more important goal in mind. Guido had a healthy stomach this year so he had no excuses not to come with us on the strenuous climb up to the ridge where the patch of forest still



The inhospitable habitat of *Odontoglossum subuligerum*

looked the same. On this trip Guido's son Karel Deburghgraeve and his friend Mathieu Flausch were also part of the team and we were eventually all in for another nice surprise. Once we entered the dense and humid forest on the top of the ridge we discovered plenty of *Odontoglossum subuligerum* in bloom.



A strong plant of *Odontoglossum subuligerum* with attractive flowers

Odontoglossum subuligerum displays a great variation in terms of the flower color, which range from pale apple green or washed-out yellow with or without brownish spots, to dark yellow with or without dark brown spots. Some variation can also be observed in the outline of the lip and its callus. What makes this species unique in the genus is the

Photos by Stig Dalström



Close-up of a pollinated but colorful form of *Odontoglossum subuligerum*



Close-up of a pollinated, colorless and less attractive form of *Odontoglossum subuligerum*



Close-up of a pale form of *Odontoglossum subuligerum* with pollinia still attached to the rostellum

Photo by Stig Dalström



A not so strong plant with less attractive flowers of *Odontoglossum subuligerum*



Close-up of the flower of a Bolivian *Odontoglossum subuligerum* plant, showing the anthercap and pollinia still attached to the rostellum, soon to be deposited on the stigma

Photo by Stig Dalström

Photo by Guido Deburghgraeve



The lip and column of *Odontoglossum subuligerum* together with an awl (subula)

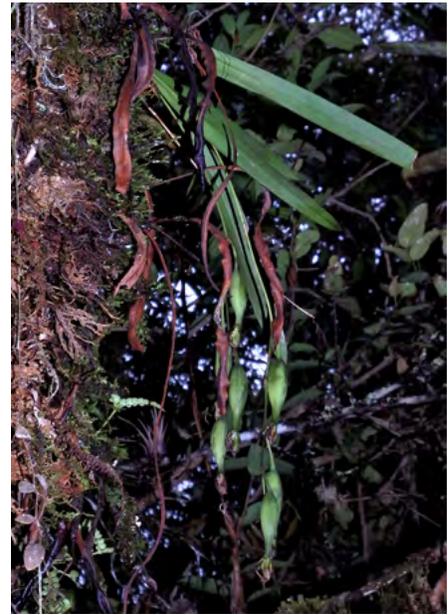


The true *Odontoglossum* garden reveals itself high up in the trees

Photo by Saül Ruiz



Saúl Ruíz looking for a better view of the *Odontoglossum subuligerum* habitat



Basically all plants of *Odontoglossum subuligerum* produce full sets of seed pods

mysterious self-pollination syndrome. It appears that regardless of the flower color basically every flower develops a seed pod in nature. This process has also been observed in cultivation by Guido Deburghraeve. The rather odd-looking anther cap is very loosely attached to the column. With the slightest disturbance of the flower, such as by the wind or rain or by a visiting insect of any kind, the cap falls off and somehow the pollinia end up on the stigma. If the flower is kept perfectly still (in cultivation) this does not happen, which suggests that this self-pollinating syndrome may have evolved relatively late and that visitor pollination still may occur. What supports a (passed?) partial cross-pollination syndrome is the fact that the flowers vary so much in both shape and coloration. It seems that cross-pollination may once have been dominating, which gave the species a wide range of genetic variables that is expressed in

the flowers. But somehow self-pollination appears to have developed at a later stage and seems to be the dominating strategy today. We can only speculate about what has happened but perhaps it has something to do with the possible disappearance of some “original” pollinators?



The ground team eagerly watching Saúl's progress seconds before the branch broke and he crashed miraculously unhurt to the ground

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CYRTOCHILUMS WITH MOVING EARS

By Guido Deburghgraeve

Very early in my orchid career I was confronted with and interested in taxonomic problems in the orchid genera *Odontoglossum* Kunth, and later on *Cyrtochilum* Kunth. The biggest step forward was the introduction to Stig Dalström by Eberhard Fehmers, a late mutual friend. In the early eighties the communication went by letters, slides and occasionally by fax. But I soon realized I needed good photos showing plants and flower details in different angles to engage in proper discussions. So I started to take detailed photos in various angles of particularly dissected columns and lips. Compositions using photoshop followed soon. But for some unfortunate slip of mind I didn't include a ruler during the first years and now I'm obliged to do a lot of them over again. The way I do this is by working on the kitchen table, using daylight and a black cardboard background. Of course this way of working requires a quiet and protected surrounding, which can be difficult to find during daylight hours.



Photo by Stig Dalström

Struggling and hobbling through the dense vegetation in the Andean cloud forest may not be for everyone.

The author in action

Since a few years back I have had the honour and privilege to struggle and hobble through the forests of Peru to spot orchids on an almost yearly basis (Fig. 1). These trips happen mostly in the company of friends, and always with Manolo Arias as the organizer, Saúl Ruíz as guide and Stig Dalström as mentor and botanical scientist. Naturally, we search mostly for plants in the Oncidiinae, particularly species of *Odontoglossum* and *Cyrtochilum*, but also *Dracula* and *Masdevallia* species are on the main “menu”. These adventures bring us to the most remote places you can ever imagine. Over the years I have witnessed the discovery of many new masdevallias, some new or forgotten cyrtochilums and even occasionally a new *Odontoglossum*. These genera are in our main interest but of course we see many beautiful and breathtaking plants of numerous other genera as well. But it's not in the forest alone one finds interesting or new plants. A visit to Manolo's greenhouses in Palca, Llanca and Oxapampa is a must for us to find additional plants with exciting flowers to photograph that originate from cool and intermediate areas throughout Peru.

During our 2017 trip in April, I decided to bring my camera with a macro lens and the setting I use as background for detailed flower photography. This is very helpful as it gives me the opportunity to put photos together for identification rather quickly, and compare with other species without a lot of work. As always we hoped to find rare odontoglossums in flower to photograph while visiting the nurseries. The visit to the Llanca greenhouse was more than successful. We found a lot of interesting plants and I needed a lot of time to make the study photos of the species we wanted. This limited the time left for me to look around and select nice things for my personal collection, but duty first of course.

While working with the photos of an attractive *Cyrtochilum* species (Fig. 2), I realized I had chosen a just opening flower. My attention was drawn to it because I noticed a peculiarity I had seen before. By studying the column structure carefully I noticed that the basal auricles of the dorsal sepal were not closed (Fig. 3). Certain groups of large-flowered cyrtochilums have auricles at the basal part of the sepals. Why they are there and for what purpose is unknown to us and I have never seen any published



Fig. 2: Unidentified *Cyrtochilum* species

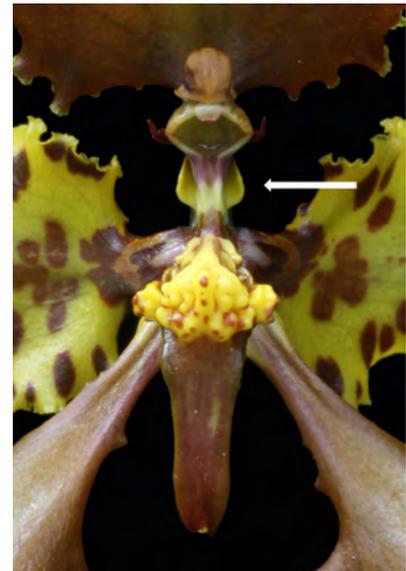


Fig. 3: The widely spreading dorsal auricles of an opening flower of a so far unidentified *Cyrtochilum* species

discussions about or explanation of their purpose. John Lindley (1855) placed species of what we today recognize as members of *Cyrtochilum* in *Oncidium* Sw., Section *Microchila*. The species with visible sepal auricles were then listed in “*Auriculata*” and those lacking auricles in “*Exaurita*”. Although Lindley used the auricles as a distinctive feature between different “groups” he did not elaborate further on the possible meaning of these sepaline flaps.

The dorsal sepals of the auriculated species bear conspicuous auricles, while the auricles on the lateral sepals generally are much smaller and sometimes almost completely missing. The difference is remarkable! Could it be there is a genetic differentiation between the well formed organ-like dorsal auricles and the degenerated functionless lateral auricles? In any case, the dorsal auricles folds forward and clasp the back of the column at the very last moment when the flower opens. While dissecting the flower, one has to use force to separate the column from the auricles. The purpose of this event is not clear to me but it must be important as I believe nature would not have put as much genetic and physiological energy into it without a good reason. Is the dorsal sepal protecting the

column? Or does the column give strength to the flag like dorsal sepal against the wind or the abuse by the pollinating insect? All suggestions are welcome!

The first time I noticed this phenomenon was in 2008 when I photographed some flowers of *Cyrtochilum cryptocopis* (Rchb.f.) Kraenzl. (Fig. 4), a very nice Ecuadorian species in the Ecuagenera

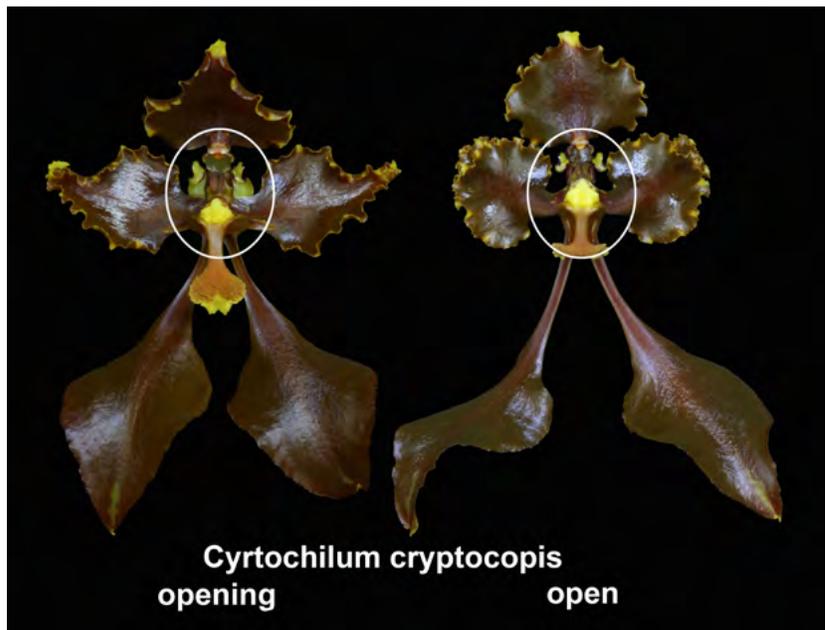


Fig. 4: Two flowers of *Cyrtochilum cryptocopis*. The left one is just opening and displays spreading auricles, while the right one is older and displays auricles that clasp the column

collection. While erasing the ovary in photoshop I noticed something on the photos that I didn't under

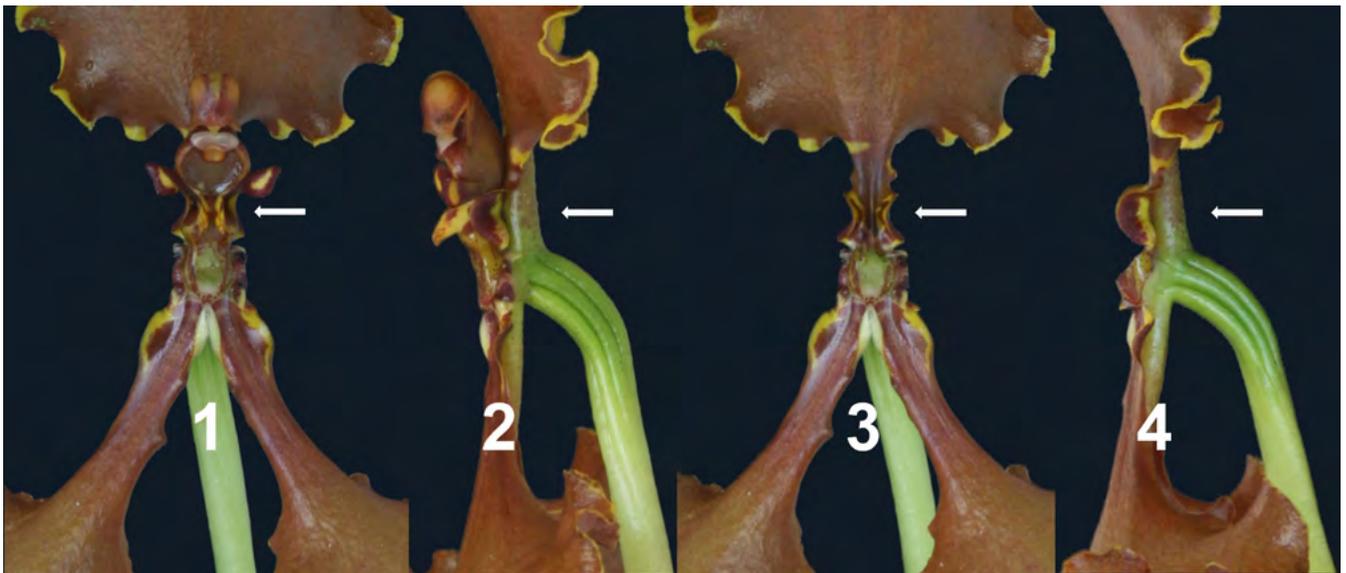
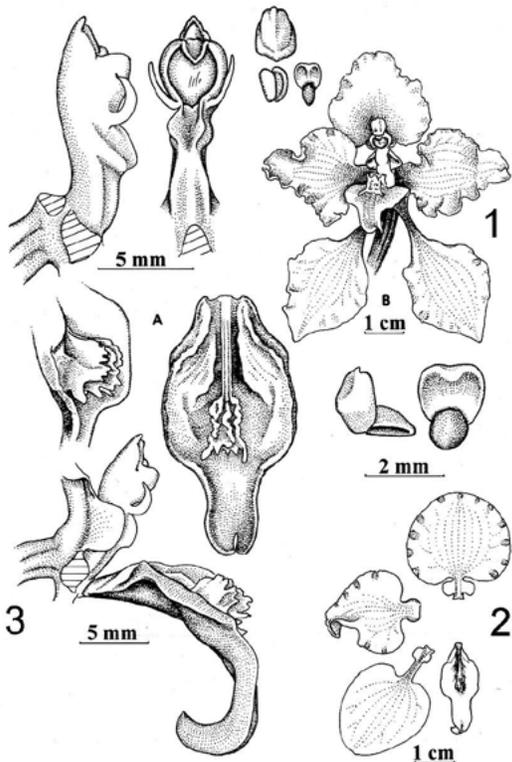


Fig. 5: Different views of the sepaline auricles of *Cyrtorchilum gargantua*

stand at first sight. Did something stick to the back of the flower? A close examination made me realize that it was the open auricles. The left flower on Figure 2 shows the just opening flower and with widely spreading auricles. The flower on the right is older and shows the auricles clasping the column. In Figure 5, the placement and shape of the auricles of *Cyrtorchilum gargantua* (Rchb.f.) Kraenzl., can be seen.

Figure 6 is a drawing of *Cyrtorchilum mendax* (Rchb.f.) Kraenzl., by Stig Dalström. I include it as a perfect résumé of the above observation. Detail number 1 shows a complete flower with open auricles; number 2 shows the different kinds of auricles; and number 3 the column with lower part of the upper sepal with the auricles in profile.



Cyrtorchilum mendax
(Rchb.f.) Kraenzl.

Fig. 6: *Cyrtorchilum mendax*

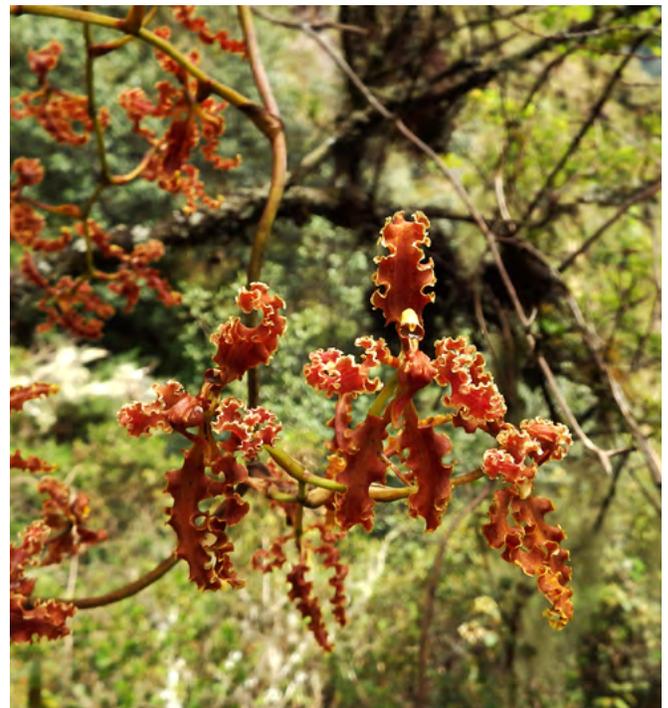


Fig. 7: Close-up of the whimsical-looking flowers of *Cyrtorchilum methonica*

Another magnificent *Cyrtorchilum* was also spotted during our 2017 trip. It was the ludicrous-looking *C. methonica* (Rchb.f.) Kraenzl. (Fig. 7-9), also



Fig. 8: *Cyrtochilum methonica*



Fig. 9: Saúl Ruíz admiring a plant of *Cyrtochilum methonica* in the natural habitat

known as *C. crispatissimum* Kraenzl., an epithet that fits the appearance of the flowers very well. This rather rare orchid was seen by us in two locations in southern Peru, but it is also known from Bolivia. It is seldom, if ever, seen in cultivation and I hope that artificial propagation by Manolo will change that situation because the bizarre-looking

flowers add a both fun and whimsical presence in any cool-growing orchid collection. *Cyrtochilum methonica* belongs to the complex of larger-flowered species without sepaline auricles, which would be Lindley's "*Exaurita*".

In summary, a lot is left to be done in order to get a better understanding of the distribution, evolution and natural variability, not to forget taxonomy of the numerous *Cyrtochilum* species before a meaningful treatment can be accomplished. But we are working on it!

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Odontoglossum nevadense

by Peter Wüllner



Drawing: Iconographic Dictionary of Orchids
Odontoglossum nevadense

Odontoglossum nevadense was unveiled to European science in 1868 by Gustav Wallis in the Sierra Nevada de Santa Marta and was published by Reichenbach f. in 1870. Only a very few times has it ever been found again in the same region. Recently it was rediscovered at around 2,000 meters above sea level. It had not been seen in this location before as it only grows in the highest parts of the tree tops and by accident in young trees.

It is likely plants from the original importation arriving in Europe came from one specific tree and therefore pollination was impossible; since immediate relatives in the genus *Odontoglossum* are often infertile as I've noted below.

Plants of this specie have pyriform bulbs ending in two fairly large leaves, and at the base of the pseudobulbs there are foliar pods, one on each side. Inflorescence stems from the base of the pseudobulb, between the pseudobulb and a foliar pod, and produce a number of fairly big flowers. The flowers have similar sepals and petals, they are quite acute, with a yellow pale green background and large brown spots. The labellum is highly characteristic; it has a narrow base with a couple of very narrow and elevated lobules and a white broadened leaf with brown spots, and at the base a callus comprising four keels in two series, the couple at the front diverging at the apex. The column is long and tere with barely insinuated flaps along the stigma.

Since it is so scarce in nature and in the cultivation, this is a specie requiring great attention. Fortunately, since the beginning of this century, it has been possible to grow it from seed and many growers in cooler climates have been able to produce plants.

The epithet, “nevadense” refers to the Sierra Nevada de Santa Marta, an isolated mountain range separated from the Andes chain that runs through Colombia. This is the only region where it has been found. Although Wallis quotes it as coming from Venezuela, because of the similarity of the name “Sierra Nevada” he probably mistook the location for the Sierra Nevada de Merida range in Mérida, Venezuela.

ORIGIN:

As already stated *Odontoglossum nevadense* was taken to Europe during the second half of the XIX century and no new specimens had been found. I believe that the ones in Europe were lost during the wars. On the other hand, as a result of my research I know it is impossible for plants of this specie to breed when they are sisters, which possibly is what was happening in attempts to further propagate the original imported plants.

In the nineteen sixties, last century, Dr. Helmuth Schmidt-Mumm found *Odontoglossum nevadense* again in the “La Victoria” farm in the Sierra Nevada de Santa Marta, during different trips he made.

La Victoria Farm: (today it belongs to Michael and Claudia Weber).

The Victoria Coffee Company was incorporated in 1892 as the result of the partnership of five investors including the founding couple, Mr. Charles and Mrs. Alice Bowden, of English origin and faithful followers of their Queen Victoria, thus the name of the company. On the North-West skirt of the Sierra Nevada de Santa Marta, shortly after the incorporation of the company, they began growing coffee between 800 and 1,400 meters above sea level.

Out of 1,223 hectares, 217 were used for arabica coffee plantations, 300 for meadows and the rest correspond to the forest reserve strip, the water basin at the skirts of San Lorenzo peak, preserved in its natural condition to date. The farm reaches 2,000 meters above sea level.

Out of the *Odontoglossum nevadense* plants collected by Mr. Helmuth, he sold some of the specimens he had reproduced by division. They were scattered in various countries and none of those specimens could be grown by auto-pollination. During the same period, some specimens were left at “Colomborquideas” in Medellín.

In October 1999, I purchased an *Odontoglossum nevadense* from Mr. Helmuth and it flowered in my house in December that same year. I tried to pollinate it on various occasions with no results and I attempted new pollinations until 2001, again with no results.

All the attempts were unsuccessful. In October 2001, I was talking with Mr. Helmuth and he told me he collected *Odontoglossum nevadense* on two opportunities at different altitudes, between 100 and 200 meters.

December 2001 – March 2002, after verifying the floriation of about 30 plants, I found 5 with a different column; my friend Gerardo Buff has the biggest plant of all.

I observed the plants that he (Mr. Helmuth) had in his cultivation, mine and the one my friend Gerardo had in his farm. Observing very carefully I realized

that some of the plants exhibited a small difference. On the column, some of them have some small lines.

Based on my observation I completed a crossed pollination of plants with a banded column and those with a white column. The result of my assays was successful and I obtained the first capsules of *Odontoglossum nevadense*, which I believe are the first obtained through breeding performed by humans.

September 2002 Gerardo’s plant bloomed (Type B plant).

December 4, 2003 Pollination. The flowering process was repeated. This time I had 4 capsules (Code BW24). After maturing for 285 days, (green capsule laboratory), plants with code BW24, due to an accident in the laboratory, Type A was taken for Type B and Type B was taken for Type A.





On October 14, 2004, I had small plants in my laboratory "N" jars, which I gave to my friends Juan Felipe Posada (Colomborquideas), Francisco Villegas (Orquifollajes) and Jorge Román Jaramillo who have nurseries at altitudes between 1,900 and 2,200 meters above sea level (maximum altitude to grow coffee). During the Conference on *Odontoglossum* in Medellín I donated some jars which were auctioned off there.

The first plants to flower were those that Francisco Villegas had at his finca in Guarne. A few days later, Juan Felipe Posada's bloomed, a couple of these plants with a different column.

Juan Felipe asked me if he could send polliniums of the two clones to the United States, and I agreed so they were sent.

Years 2004-2006 I made various pollinations and assays with different planting and harvesting dates

I have discovered that the pods less than 240 days old don't germinate well, or they don't form protocorms (callus mass without differentiation).

Today I have small plants of the pollinations A x b. B x A PWS193 (Type B). PWS 194 (Type A). PWS 308 Type B x Type A

NOTE: The lip is practically fluorescent, you can see it VERY WELL when there is a full moon, one week before the full moon and the week after. The stigmas are more receptive one week before and one week after the full moon, and this may indicate that there is a nocturnal pollinator.

In 2002, I took my plant to the Orchids Exposition in the Botanical Garden and it was greatly admired by the visitors. I believe this is the first plant of this type to be presented at an exposition in Bogotá.



Replanting in the Sierra Nevada de Santa Marta

As there already were a significant number of plants, the idea of reintroducing some of them to their original habitat was contemplated. This implied a series of considerations that needed to be addressed first. The most important one was to perform a sanitary control and test for virus so as not to take a problem to the area where they would be reintroduced. And also, it was necessary to obtain permission from the authorities which were very interested and provided full cooperation. Lastly, we needed to find the place where theoretically the parents had been harvested and to find out if there were still any *Odontoglossum nevadense* there.

Difficulty to see them, especially when not in flower is due to the fact that they are at the top of gigantic trees and that seemingly they receive sufficient light. Furthermore, since it is not such a striking specie it had been saved from collectors.

After learning where they grow and since we found *Odontoglossum* in the area, we tied some of the plants (grown by Juan Felipe Posada in Colombrquideas) and taken for this purpose to some trunks. Unfortunately, it was impossible to climb up the huge trees to position the new plants in a more adequate place for their future development.



Anyway, it was a fabulous experience for all of us when our trip finally concluded in success. Biologist Borish Cuadrado and the employees of the park were very excited about taking care of the plants we had taken, and to prevent wild orchids from being

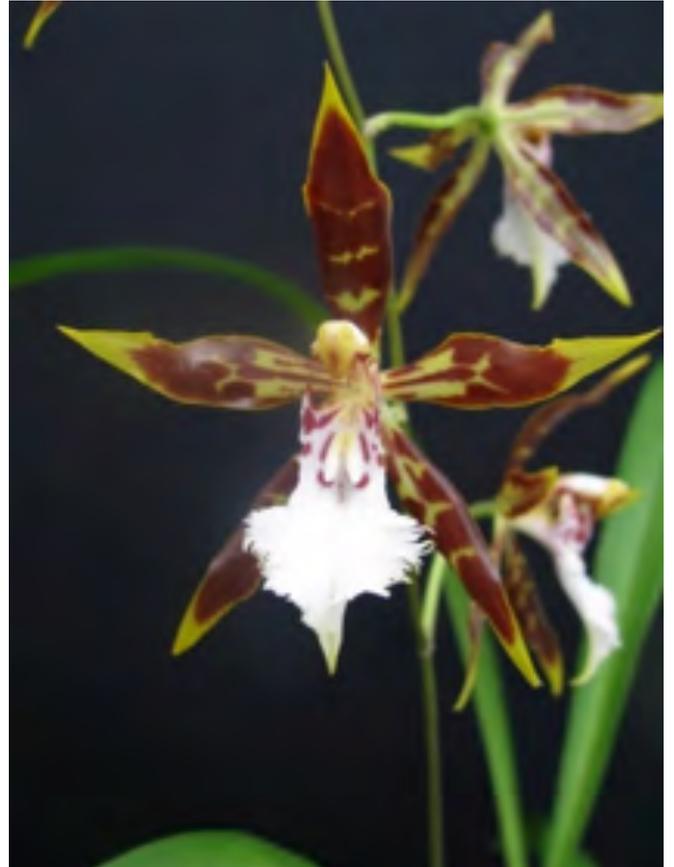
collected in the region. Also as a result of our visit they were eager to learn more about orchids in general and to maybe observe new species in the area.

For the lovers of *Odontoglossum nevadense*, it is not necessary to look for them in wilderness since there are sufficient to satisfy the desires of the collectors and to be able to leave the mountains in peace.



San Lorenzo – Sierra Nevada de Santa Marta





Odontoglossum nevadense, bred by Juan Felipe Posada from seeds bred in vitro by Peter Wüllner
Photograph, May 21, 2008 (Juan Felipe Posada—Colomborquideas—Medellín)

Bibliography: Pedro Ortiz Valdivieso S.J. (R.I.P.)

In this work on *Odontoglossum nevadense*, I used photographs of:

Juan Felipe Posada

Gerardo Buff

Peter Wüllner

Finally, I would like to thank the friends who helped make my work possible, but specially God for having helped me carry out these projects.

With this small contribution, I think I have helped nature recover its beautiful plants in this lovely country that embraced me and which I love as if it were my own.

THANK YOU VERY MUCH

Hybridizing Notes

by Andy Easton



***Vuyl* (*Oda* Shelley ‘Spring Dress’ X *Mps* Venus ‘Envy’)**

Many people’s first reaction on viewing this hybrid is to suspect a wrong tag. Seemingly the broad *Mps*. lip has barely expanded the narrow lip of *Oda* Shelley. But, my limited experience dabbling in similar *Odm. cirrhosum* lines makes me quite comfortable with the listed parentage. Many years ago, when my now 36 year-old daughter was six or seven, we named a *Vuyls* seedling Elsa Button. It was made by crossing *Odtna* Aglaon with *Oda* Shelley and the entire cross had similarly modest lip profiles. We also at that time made *Vuyls* Howard Liebman, now unfortunately gone to that great greenhouse in the sky, by crossing *Oda* Shelley X *Mps* Athene. The lips on the HL’s were broader but as they resulted from a diploid *Oda* crossed to a tetraploid *Miltoniopsis*, which could be expected. The “take home” would appear to be: don’t cross a diploid *Odm cirrhosum* primary with a diploid *Miltoniopsis* and expect broad, typical *Vuylstekeara* lips!



***Oda* Prince Vultan 4n X *Odcdm* Tribbles 4n**

A quite variable cross, maybe a little thin in the inflorescence habit but some dramatic colors are appearing. Neither parent is as dark as this seedling and so far we have seen about 25% favoring this dark plum coloring. Lots of flowers and with a somewhat warmer-tolerant background there may be some opportunities here to breed to *Odontocidiums* and *Wilsonaras* that have strong inflorescences.



***Vuyls* Cambria ‘Plush’ X *Oda* Charlesworthii 4n**

This very interesting flower is a triploid. The showy lip is all due to dear old *Odm harryanum* on both sides of the parentage and not from the extremely small % of *Miltoniopsis* blood. The crossing was made to get away from the tendency of Cambria ‘Plush’ to develop purplish tones as the flower ages

or in warmer conditions. Like all seedlings the cross will have to be tested but the pictured flower was photographed in a 2.25" pot after being open for exactly 30 days.



Odm Rolfeae (Odm. harryanum X Odm. pescatorei)

Named for the Editor of the Orchid Review by none other than the venerable Mr. Vuylsteke in 1898. In the original diploid version, all the plates I have seen favor the *Odm harryanum* markings. But in Bob Hamilton's tetraploid remake that we currently are enjoying the base color favors the *Odm. pescatorei*. In fact most of the seedlings have a decidedly greenish cast, which might inspire some young enthusiast to embark on the attempt to create a green *Odont*. So far the spikes on tetraploid forms are a little short but we expect to see a marked improvement as the plants mature. The flasks I am particularly looking forward to are seedlings of *Vuyls Cambria 'Plush' 4n X Odm Rolfeae 4n* but then I am a total sucker for any Cambria offspring which grow faster and more easily than almost any other *Odont* line!



Oda Brewii (Oda Charlesworthii X Odm. harryanum)

Now this is interesting, the plate to match the modern iteration that is 4n. There is a trap here too. This is *Oda Brewii* and not *Vuyls Brewii* which is the cross of *Mps. vexillaria X Oda Brewii*. Why is this important? Well, *Vuyls Cambria 'Plush'* is *Vuyls Rudra X Odm Clonius*. *Vuyls Rudra* is *Vuyls Brewii X Odm Prince Edward*. *Odm Prince Edward* is 50% *Odm. harryanum*, 25% *Odm crispum* and 25% *Odm pescatorei*. So *Oda Brewii* is indeed a forbear of *Vuyls Cambria* but generations further back than most folk are aware. Some of the stupid confusion that the taxidiots have wrought on the *Odon-toglossum* Alliance is only exacerbated by these historical names that have been totally upended.





Odm Summit 4n X Oda Crystal Palace

This hybrid, bred by Mark Pendleton at Orchid Zone is extremely vigorous. It is typical of *Odm. bictoniense* lines that always seem to grow fast and easily. The plants have large shiny pseudobulbs and tall spikes that carry up to 30 showy blooms. I have tried several pods on the grex without success but they would appear to be tetraploids and should be fertile so hopefully a smarter breeder than I will succeed.

A Howard Liebman hybrid bloomed at Colombrquideas. *Oda Leysa* is a diploid red of intense red coloration favoring its *Cda. noezliana* influence. When crossed with the Dugger *Odontocidium*, we see a much redder coloring than is typical for many other *Wilsonaras* that have red *Odontodas* bred with say tigrinum-influenced *Odontocidiums*. So many of these come in dull purplish-red tones that completely fail in retail environments where the plants are largely vended under artificial light. This line could be very useful.



***Odm Bic-ros 'John Leathers' 4n X
Cyrt. leopoldianum (Cyrt villenaorum)***

This stunning new hybrid recently bloomed at Colombrquideas is both simple and beautiful. These seedlings grow quickly and evenly and there are no signs of any foliar ticking that can be unsightly in hybrids from *Odm. rossii*. Probably in some sense these are plants for hobbyists, if many hobbyists still exist, but if the inflorescences turn out to be manageable and strong enough, there may also be commercial uses in specialty markets. One would expect this particular cross to be triploid but if the tetraploid Bic-ros was used with say an extant tetraploid *Cyrt edwardii*, we might be in for a very interesting and useful hybridizing adventure.



Oda Leysa X Wils. Solana Stirling



***Odontioda*, (Durham City X Kendrick Williams) 'Hawk Hill' ***

Look at this beautiful new linebred *Odontioda*, (Durham City X Kendrick Williams) 'Hawk Hill'. Will it be registered under the current system? No frigging way! Will the AOS/RHS or whoever ever judge it? No, no, no and who are the losers? Not the Kewites; it is the keen enthusiasts who are getting shafted.

Have you noticed something? All the recent hybrids are unregistered and they will stay that way till someone makes the RHS/AOS see sense. There has been a precipitate drop in *Odontoglossum* Alliance registrations since Chase and Co. tried to destroy their nomenclatural history. Some of us are fighting back. OrchidWiz is considering a very sensible new approach where they will register hybrids in the old format so long as the registrant sends in a good picture of said proposed registration. Back when the RHS took over the hybrid lists from the family Sander, certain promises were made and they have not really been kept. Remember it is not the individuals whom we hold responsible. You could not find a more obliging person than Julian Shaw and his assistant Hannah Griggits. They are jewels but

they are constrained by the faceless taxidiots and bureaucrats at Kew and elsewhere. The AOS, as is usual, have led from behind too. Shamelessly sycophantic behavior.

Someone asked recently if I might briefly comment on the difference between line-breeding and developmental breeding. As some wag put it, line-breeding is a milder form of in-breeding. We are talking about plants and not people here so the failures are often self-regulating. Consistency is a feature of line-breeding and in pre-meristem days this was "bread and butter" approach to successful hybridizing. But boredom can quickly set in! Keith Andrew has always been a developmental hybridizer. He recently stressed to me that when he embarked on new lines, he always planned for the payback in the F2 or F3. If you scan the hybrids commented on in this article, they are nearly all developmental lines. In essence, there should be much more to come. One of the great thrills of the *Odontoglossum* Alliance is to see something wild yet wonderful. Something you could barely imagine as a hybrid in your mind, suddenly in bloom before your eyes. It is an addictive sensation. I sent pollen off diploid and tetraploid plants of *Odm* Pesky Trance (*Odm astranthum* X *Odm. pescatorei*) to Clive Halls at Mt. Beenak in Victoria, Australia and he has made better hybrids than either Bob and I have made on our plants here. Are we disappointed? Hell no! But we are now both challenged to use the plants more wisely and to follow insights he has given to us. Oh to be 25 again!

* Andy Easton commented on my cross of *Odontioda*, (Durham City X Kendrick Williams) 'Hawk Hill' citing it was unlikely it would ever be registered given the insane ASCHOR decisions on *Odontoglossum* and other orchid genera which destroys the usefulness of a database of historic orchid garden hybrids I'll meet the challenge and publish a name in this newsletter, *Odontioda* Comeuppance. We need to sustain the order created with Sander's Orchid List.

FESTIVAL OF FLOWERS, MEDELLIN– 2017

by Richard Baxter

Regular readers of the IOA newsletter will recall Andy Easton’s enthusiasm for the annual floral extravaganza which is held in Medellin during the first week of August, so when I read Robert Hamilton’s article about the IOA being invited to hold their General Annual Meeting (GAM) as part of the 2017 event I decided I should go to check it out. Strangely, there are not many serious *Odontoglossums* growers in the UK so a visit to what is the ancestral home of many *Odontoglossum* species seemed too good to miss. I hoped that perhaps mixing with enthusiasts from other countries might help me to understand the dwindling enthusiasm for the genus and why increasingly EU nurseries say they are no longer commercially viable.

Medellin sits about 1500 meters above sea level in the Andes Mountains just 6 degrees north of the Equator. It is Colombia’s second city after Bogota and has a population of 2.5 million. The location means that there are no distinct seasons, and with pretty much year round constant day length and temperatures hardly varying from 28C day and about 16C night it is known as the City of the Eternal Spring. Currency is the Colombian Peso (COP) with about 3600 COP to GBP at the time of my visit. Taxi from Medellin airport took about 45 minutes. I was lucky that on arrival at my hotel on Sunday morning Andy Easton met me. Andy is a regular visitor; he knew the ropes. Despite travelling for 24 hours there was just time for a quick change then off to see the event build-up.



The entrance to the flower show

This huge floral event is held in the Botanical Gardens where I met Juan Felipe Posada, President of the Orchid Society of Colombia, who is one of the



One of the exhibits being set up for the show

masterminds of this operation. The large circular exhibition space has a covered but open central area, with shade cloth for surrounding exhibits. Judging was scheduled for Tuesday morning with the show open to the public for 6 days Wednesday thru Monday attracting about 20,000 visitors each day.

When I arrived on Sunday afternoon staging was already a hive of activity giving me a real appreciation of the basic infrastructure. It was clear even then that the scale of this would be something I had never before experienced. I was introduced to so many people that day. Staging continued as frantic as ever on Monday with a midnight deadline looming and much still to be done. This being a floral event, not just orchids, several huge stunning displays were being created from thousands of blooms. People up ladders placing individual flowers so precisely on exhibits, others atop mechanized cherry-pickers creating exotic arial hanging displays. Other experienced orchid people began to gather during Monday, including Bob Hamilton and John Leathers who are two of the “engines” behind the International *Odontoglossum* Alliance.



Miltoniopsis (Oise X Harold Ripley) 'Botanica'
 Winner of the IOA "Best Hybrid" Award
 Exhibited by Botanica

Tuesday morning dawned and almost miraculously the entire exhibition had been transformed from work-in-progress to a quite extraordinary sight of order and beauty. Show orchid judging was handled by AOS judging teams, but I joined Dr. Howard Liebman, Bob Hamilton, Antonio Uribe and Andy Easton and John to assess special prizes put up by



Preview Night Party Invitation



Miltoniopsis vexillaria "Entre Flores"
 Exhibited by Daniel Piedrahita
 Winner of the IOA "Best Species" Award

Photograph by Nicolas Gómez

the International Odontoglossum Alliance for the best alliance species and best alliance hybrid. These two awards were outside AOS judging each carrying a substantial cash prize, *Miltoniopsis* plants won both awards this year.



Juan Felipe Posada - Master of Ceremonies

Tuesday evening was the formal opening, prize giving and musical entertainment. A glittering ticket

only event with 2,000 guests all seated and served a hot meal at white clothed tables throughout the main exhibition area. Socializing went on into the night with exhibits now illuminated just adding more magic to the evening. Overnight the logistical task of clearing formalities away was completed ready for public access in the morning.

On Wednesday a small group of us were collected and entertained by Olga Lucia Arango, Juan Carlos Sanin and their family at their El Bosquecito nursery where cut flower *Cymbidiums* and *Cattleyas*



El Bosquecito nursery

are among the main commercial products. I have always understood that cymbidiums need a noticeable diurnal drop in temperature to induce spikes, but as there are no seasons around Medellin that drop happens daily so they flower year round - a huge commercial advantage over producers in countries limited by seasonal production. This was my first experience of shade house culture so I was intrigued to see that as soon as a cymbidium spike is found it is shrouded in a polythene tube avoiding damage by rain or insects while fine perforations prevent over heating. My personal interest focused on a large and impressive collection of *Odontoglossums*. Mostly mature plants with vibrant flowers of every colour.

On Thursday I took myself back to the Botanical Gardens, which cover 35 acres and are noted for 1000 plant species and about 4500 different flowers.

I had a long walk around different plant collections like, for instance, a display of man sized cacti. The odd 3ft iguana wandered freely too. Unfortunately the scientific block was not open to the public. Back in the main show I wandered round the now busy trade stands selling everything from plants to toys to jewelry and other artisan crafts. It did seem strange that here in the open air and constant temperature all the plants in the main exhibition were still as fresh as day one, whereas back at home plants usually begin to look a bit tired after couple of days out of their protected growing environment. I didn't know the name of a plant (and believe me I saw so many plants I have never seen before) so I asked and was directed to a really helpful gentleman. Not only did he tell me it was a *Zingiber olivaceum* (ginger) but he insisted on taking me back out into the main Botanical Garden to see specimens growing. He, incidentally, grows hydrangeas and exhibited them in every colour under the sun. I assumed colouring was by feeding or injection, but no, he grows only white blooms then sprays with chosen colours depending on commercial demands - he sent 80,000 cut blooms to a supermarket chain in the UK for Mothers Day this year. Outside the main exhibition was a separate smaller exhibition, "Flores de mi Jardin", where

plants came from the general public, mostly from poorer homes with maybe just an apartment balcony. There were some very acceptable orchid plants here too - grown even in cut away pop bottles. It



Some of the attendees of the GAM of the IOA from the left; Andy Easton, Juan Carlos Sanin Arango, Francisco Villegas, Olga Lucia Arango, Juan Felipe Posada and Maria Paulina Sanin

was refreshing to find such an all-inclusive type of event, which confirmed the warmth, and friendliness of the Medellin people.

Back at the hotel, on Thursday evening I joined the GAM of the International Odontoglossum Alliance hearing lively discussion between very experienced growers about conservation, widening awareness of the genus, and creation a new website. I offered to



View from Colomborquidea's Nursery

be a central contact in the UK for IOA. The meeting closed with dinner and an interesting auction.

On Friday our small group was invited to Juan Felipe Posada's Colomborquideas nursery. Extensive shade houses again with large areas of *Miltoniopsis*, *Paphiopedilums*, *Cymbidiums*, *Masdevallias*, *Pleurothallids*, *Odontoglossums*, and my keen eye noticed some superb *Draculas* under the benches. Once again, we were entertained liberally and spent the day browsing the huge range of plants. For me it was so good to see many old *Odontoglossum* hybrids which were stars and much awarded back in their day in the 1980's like *Odontioda* Joe's Drum, and *Odontioda* Victoria Village both which I have read about or seen as parents in crosses. They were not in flower, but just seeing that they had been re-made or maintained was gratifying.

Juan Felipe told us about an exciting forest conservation project which the Orchid Society of Colombia is building. The project has already recorded much flora and some fauna thought to be extinct in the area, even a family of spectacled bears.

My flight home was scheduled for Saturday evening so during the day I went walking around Medellin and then into the shopping mall for a final look at the huge floral centerpiece celebrating this week long festival. Reaching almost three storeys high the entire display of a peacock was created with bedding plants. Everywhere around Medellin was decorated with flowers, even company advertising tableaux ready for the main procession through the town during the holiday weekend. Workers from the surrounding fields would carry huge floral exhibits on their backs - a real festive atmosphere was building.

But my time to leave had come. Before travelling to Colombia I had absolutely no idea what to expect other than those who encouraged me said I would be blown away. I was, I learned so much. The atmosphere of the event, the warmth of the people in Medellin, all wrapped up in the welcome I received everywhere I went were quite extraordinary. Shall I go again? I do hope so but if my story has stimulated your interest don't hesitate, just go - you will not be disappointed.



The three story peacock in the nearby shopping center

Presidents Message

This Fall 2017 International Odontoglossum Alliance newsletter is published later than expected. It is the most robust newsletter thusfar. At 24 pages, including this message it arrives in my "inbox" as a .pdf file of nearly 4 MB's. Fortunately, this is a small enough file for most e-mail handlers to swallow. And, in this issue there's is plenty of color content in this issue.

Our contributors are growers and taxonomists of international esteem, Stig Dalström (Sweden and a USA resident), Guido Deburghaeve (Belgium), Peter Wüllner (Colombia), Andy Easton (USA) and Richard Baxter (United Kingdom). Corresponding with authors, proofing content and adding photos is a time consuming task. Each of these contributors deserves recognition for their contributions and a thank you for their effort. I am sure I echo IOA reader sentiments by describing this issue as stellar.

As noted in Richard Baxter's article, the IOA held a General Annual Meeting in Medellin Colombia concurrent with their spectacular 2017 show. The IOA GAM was held at the Poblado Plaza Hotel on August 3rd 2017 with 12 IOA members in attendance: Olga Lucia Arango, Richard Baxter, Andy Easton, Bob Hamilton, John Leathers, Howard Liebman, MD, Juan Felipe Posada, Maria Victoria Sanin, Juan Carlos Sanin, Maria Paulina Sanin, Francisco Villegas. Regrettably, IOA Secretary John Miller was not able to attend; however, he did provide an update and guidance about the financial status of the IOA.

Summary of the IOA GAM meeting:

- An election for new officers will be held in the Spring of 2018. A Nominating Committee will be announced. Anyone wishing to participate in running the IOA is welcome to submit his or her name via an e-mail to the editor: jjleathers@comcast.net. At present there's a real need for a volunteer with IT experience.
- We will explore survey-software, such as Survey Monkey to tally election results and for member interactions. Any IOA reader can volunteer or recommend someone for a Board position or a voluntary position. At present we have only a President and Secretary/Treasurer and a Newsletter Editor.

- With assistance from translation software and Juan Felipe Posada of Colomborquidea this and future issues will be published bilingually in English and Spanish. If a volunteer steps forward who can proof a translated document and return corrections to our newsletters editor, John Leathers we can expand this effort to other languages.

- The IOA will try and establish a website to host the newsletter, for communication between members, list plants resources and provide a space for pictures. This will cost time and money. As noted above a volunteer with IT skills is welcome.

- IOA Secretary John Miller message is the IOA treasury has about \$600 dollars in it. John is appealing to IOA members to make a voluntary contribution to bolster this amount. Currently, with a free, e-mailed newsletter expenses are modest, i.e. fees to an author to fund research and other sundry debts. However, establishing a web page requires purchasing domains and paying for hosting. Voluntary contributions should made out to the "Odontoglossum Alliance" and mailed to:

John Miller
5 Winward Way
Westport Point, MA 02791
USA

- Juan Felipe Posada gave attendees a glimpse of an extraordinary effort on the part of the Medellin orchid society. They have purchased a superb reserve of primary forest. More details about this in a future issue.

- In discussing the events going on at this year's Medellin show Richard Baxter asked how the AOS awards worked. After explain the AOS awards Richard had a good laugh, "you mean they give you an award and charge you money for it"? This prompted a discussion about establishing an IOA cash prize awarded annually to the best *Odont* species and best *Odont* hybrid. The details of how to go about this to make these prizes eligible internationally need further discussion.