

Odontoglossum Alliance Newsletter

Volume 1

May 2016

In This Issue

From Being the Same to Being Different by Stig Dalström	Pages 1,3-7
Editorial Ramblings	Page 2
A Note from the Editor	Page 2
Obituaries: Alan Moon, by Brent Elliott	Page 8
Professor Thomas Sheehan, by Andy Easton	Page 9
Walter Off of Waldorf Orchids, by Andy Easton	Page -10
Odontoglossums at the Orchid Zone by Bob Hamilton	Pages 11-15



FROM BEING THE SAME TO BEING DIFFERENT, AND FROM BEING THE SAME TO BEING DIFFERENT AGAIN



Figure A: *Oncidium fuscatum*, also known as *Chamaeleorchis warszewiczii*. Photo by Angel Andreetta.

Stig Dalström

2304 Ringling Boulevard, unit 119, Sarasota FL
34237, USA

Research Associate:

Lankester Botanical Garden, University of Costa
Rica, Cartago, Costa Rica

National Biodiversity Centre, Serbithang, Thimphu,
Bhutan

stigidalstrom@gmail.com; www.wildorchidman.com

The first documented collection of the orchid treated initially in this article, was probably made by the German botanist Eduard Friedrich Pöppig around 1830, in the Cuchero area in Huanuco, Peru. It does not seem to have been scientifically described by Pöppig though because the earliest published record of this taxon was collected in an unknown locality somewhere in the New World tropics by the Polish traveler Josef von Warszewicz. It was described as *Miltonia warszewiczii* Rchb.f., by Heinrich Gustav Reichenbach in 1856. The same author then changed the name to *Oncidium fuscatum* Rchb.f., in 1863. Reichenbach obviously wanted to place this species in *Oncidium* but could not use the epithet

Continued on page 3

Editorial - Ramblings

The May 2016 International Odontoglossum Alliance newsletter arrives later than intended. It is in a format which saves the printing costs of color photos accompanying the text. By printing black & white images with text; then consolidating color photos in a supplement saves costs. Only the supplement needs color reproduction. The IOA's major annual expense is printing and mailing hard-copies of the newsletter. Interspersing color photos with text requires all pages get printed using color reproduction even if there is only black and white text. Color reproductions are significantly more expensive than plain black & white pages. In addition, this new format is a prelude to publication on the web. While some IOA members will prefer to receive a hard copy newsletter, others might prefer a web-based newsletter with the benefits of an easily accessible archive which is searchable as well as a location where one can import images.

Appended is a recent summary of IOA costs per newsletter provided by our Secretary and Treasurer John Miller:

Printing (Production of the newsletter)	\$166.80
USPS	\$148.42
Author fees	\$100.00
TOTAL	\$415.22

“This does not include miscellaneous costs such as envelopes, labels, etc. I've been printing about 72 copies giving us a cost per issues of \$5.77. Our annual cost per member is approximately \$23.07. By using the proceeds of our our auction to help cover costs we can continue to charge \$15.00/year for a membership.”

Printing and distributing a newsletter is just one issue affecting the future of the IOA. Would a website and perhaps a forum add vitality? We have tried this before without much success. A website needs management and effort; a forum needs a moderator and most off all newsletters, websites and forums need content.

Our annual auction has typically been held concurrent with an annual meeting with material provided by a handful of donors. In recent years the annual meeting has been held in San Francisco, CA. A decline in orchid growing (and growers) as well as the limitations of geographies where odontoglossum thrive makes it difficult to identify other venues – we need to! Can we move the auction to a resource such as EBAY or Facebook? This too requires work.

It would be great to hear from other growers with their concerns. It would be terrific to see what others are blooming. South America has some fabulous growers. The Medellin Colombia show is dynamic and draws more than 100,000 visitors. The 2017 World Orchid Conference will be held in Quito, Ecuador in 2017. There's increased interest in odontoglossums in Australia and New Zealand. This begs the question, can we find a way to more easily move plants between our borders? IOS members are invited to reply with ideas and opinions. Feel free to e-mail Bob Hamilton, rmhjjl@comcast.net with comments or content with the caveat the dialogue may be shared in future newsletters.

On a sobering note this edition of the newsletter contains obituaries of three distinguished orchid growers. Alan Moon's death strikes close to home for he provided many of us inspiration as well as a legacy of outstanding plants. Alan was a driving force for the preservation of orchid hybrids; one of the most intelligent, insightful as well as fun-loving orchid grower. His efforts as curator of the Eric Young Foundation, collaborations with Prof Don Wimber, his brilliance as a hybridizer and his down-to-earth savvy, his humor all help to make Alan Moon a most unique orchidist who can be easily described as a national treasure of the United Kingdom. He and wife, Val were superb hosts; a terrific team. Rest in peace!

Bob Hamilton

A Note from the Editor

I am pleased to be working with John Miller in revising the format of the IOA newsletter and assuming it editorship.

Growers interested in contributing articles for the IOA Newsletter are encouraged to do so! Articles of any length, including as small as a photo with caption, comments or announcements of events are welcome. I can accept most word processing and photo formats. Please email them to rmhjjl@comcast.net. Note in the subject line such as “IOA submission” or something that helps identify its content for the newsletter is appreciated.

Also, if you would like to receive the newsletter by email, contact the editor at rmhjjl@comcast.net. Note in the subject line “Email Newsletter” to help identify your request to receive the newsletter electronically. The printed newsletter will still be sent out to anyone member wishing to receive it.

Continued from page 1

“*warszewiczii*” because he already had described an *Oncidium warszewiczii* Rehb.f., in 1852, based on a Panamanian plant, also collected by Warszewicz. A few years later and in a short article in Gardener’s Chronicle about *Miltonia warszewiczii*, Reichen-



Figure B: The typical short and stubby column of *Oncidium fuscatum*. Photo by Stig Dalström.

bach recognized that the same species had “in the meanwhile been gathered by an adventurous son of Albion (Mr. Welton?), as we learn from Mr. Williams, of Paradise Nursery, who sent a very neatly dried specimen (alas! No other dried species), with a good English description, and the name *Odontoglossum Weltonii*.” (Reichenbach, 1870). Reichenbach recognized this plant (and name) only as a new variety of *Miltonia warszewiczii* and did not



Figure C: *Oncidium warszewiczii* from Panama. Photo by Stig Dalström.



Figure D: *Vitekorchis excavata* from southern Ecuador and northern Peru. Photo by Stig Dalström.

consider it a valid species, as is indicated in the Kew Monocot Checklist. And even if it would be a valid species, the authorship probably should go to Benjamin Samuel Williams of Victoria and Paradise Nursery and not Reichenbach, as it is now listed. Although we don’t really know if the name



Figure E: *Oncidium*, or *Heteranthocidium retusum*, Peru. Photo by Stig Dalström.

Odontoglossum weltonii was ever published as such anywhere else other than mentioned as a variety of *Miltonia warszewiczii* by Reichenbach and in William’s *The Orchid-Grower’s Manual* (fourth edition, 1871). There is a *Miltonia warszewiczii*

weltonii Moore, listed by William's in the 6th and 7th editions, however, which presumably refers to the same taxon. Rollison included this species as *Oncidium weltonii* (Rchb.f.) Rollison in their Springfield Nursery Catalogue in 1875-1876, and there ends the "weltonii" nomenclatural side-trail.



Figure F: *Oncidium planilabre* with a short and stubby column, which shows that it belongs to the *Chamaeleorchis* group. Photo by Stig Dalström.

The rather odd *Miltonia*-looking flowers of this species could not leave taxonomists' minds alone, however, and the German orchidologists Brieger and Lückel created the genus *Miltonioides* Brieger & Lückel in 1983 where they included *Miltonioides warszewiczii* (Rchb.f.) Brieger & Lückel, together with many Mexican and Central American species. But it did not take long before this taxonomically troublesome orchid was up for discussion again, and this time placed in the monotypic genus *Chamaeleorchis* (Rchb.f.) Senghas & Lückel in 1997.

A little more than a decade later, it was returned to *Oncidium* again by Mark Chase and others in their controversial DNA based treatment of the genus (Chase et al., 2008), which included genera *Cochlioda* Lindl., *Collare-stuartense* Senghas & Bockemühl, *Odontoglossum* Kunth, *Sigmatostalix*

Rchb.f., and *Solenidiopsis* Senghas. In an effort to keep at least *Odontoglossum* as a valid genus, certain perhaps unpopular decisions had to be made and *Cochlioda*, *Solenidiopsis*, and *Collare-stuartense* were transferred to (or kept as) *Odontoglossum* (Dalström, 2012). What bothered me at the time (and still does) was the presence of two small groups of "Oncidium-looking" species that apparently had split off the *Odontoglossum* evolutionary path at an early stage. In order to have a completely monophyletic branch/clade that will solidify the preservation of *Odontoglossum* as a valid genus, and to avoid creating new names, these basal species have to be incorporated in *Odontoglossum* as well.

But my curiosity has been stirred and I want to see if it is possible to morphologically define the other monophyletic groups that have been incorporated in *Oncidium* by Chase and others. I reason that if the DNA demonstrates that these groups really are different from each other, then it should be possible to identify some visible morphologic features that can be used in taxonomic treatments. The monophyletic groups involved here are all described as separate genera at one time or another. The genus *Vitekorchis* Romowicz & Szlach., is a sister-group to the main bulk of *Oncidium* and *Odontoglossum* species and includes the well-known *V. excavata* Romo-



Figure G: *Oncidium hyphaematicum* with a short and stubby column also belongs to the *Chamaeleorchis* group. Photo by Stig Dalström.

wicz & Szlach., originally described as *Oncidium excavatum* Lindl. This small Andean genus is characterized by glossy bifoliate pseudobulbs and large sprays of yellow flowers spotted with brown. “Typical” *Oncidium*-looking plants in other words. What is different though is the shape of the pollinarium for all species. It has a very short and broad stipe in relation to the size of the pollinia. The two cleft



Figure H: Even a dried plant of *Oncidium boothianum* shows the unifoliate and purple-mottled *Odontoglossum*-like pseudobulb very clearly. Photo by Stig Dalström.

pollinia almost look like they are attached to the viscidium directly, which is quite different from the stipes of other *oncidiums* and *odontoglossums* (sensu lato). The latter have a well-defined and mostly elongated stipes of various shapes, as long as or longer than the viscidium. The pollinaria of *Vitekorchis* species are similar to those of many *Cyrtorchilus* species. The next step up in the evolutionary tree reveals a larger group of “*Oncidium*-looking” species that are characterized in general by having a strongly sigmoid and narrow-based column, with an elongate and elephant trunk-like rostellum, a miniscule viscidium and a thread-like stipe. The members of this group also have the habit of producing abortive flowers in various ways. Some species produce these abortive flowers near the base of



Figure I: *Oncidium tipuloides* from Ecuador and Peru display the typical unifoliate and purple-mottled pseudobulbs. Photo by Stig Dalström.

the side-branches, which can make them difficult to detect. Sometimes they are placed along the middle, and in some cases at the very top of the side-branches. This is the “*Oncidium heteranthum*” Poepp. & Endl., group, which was described as genus *Heteranthocidium* Szlach., Mytnik and Romowicz in 2006. The problem with that genus was that the authors incorporated species that do not belong there



Figure J: *Oncidium tipuloides* flowers with the typical wingless column. Photo by Stig Dalström.

according to molecular evidence. But this is a separate story that will be dealt with some other time. In any case, *Heteranthocidium* is a sister-group to the bulk of species remaining in the *Oncidium*-*Odontoglossum* evolutionary tree. If we move on upwards the evolutionary stem we find that the next considerable split separates one large group that includes the type of *Oncidium* Sw., and the other large group includes the types of *Odontoglossum* and *Sigmatostalix*. The *Oncidium* group consists of two sub-groups. One includes *Oncidium fuscatum* and the other the type of *Oncidium*; *O. altissimum* Lindl. Hypothetically, it should be possible to identify features that separate these two groups and treat them as separate genera. But is it possible? Senghas only included *O. fuscatum* in *Chamaeleorchis*, but there are other species assembled in this group as well, according to available molecular data. Do they share some common features that can separate them from *Oncidium*? Well, yes! A good feature is



Figure K: *Oncidium obryzatum* from western Ecuador. Photo by Angel Andreetta.

the short and very stubby column, generally with a defined *tabula infrastigmatica*, a thick throne-like structure at the base of the column, similar to many Brazilian, former *Oncidium* species that were transferred to *Gomesa* Lodd. ex Lindl., by Chase and others. Some species in the *O. fuscatum* group have unifoliate pseudobulbs while others can produce

two apical leaves. Technically speaking, this little group of rather odd-looking species can be treated as *Chamaeleorchis* because it is a monophyletic sister-group to the bulk of species that include *Oncidium altissimum*. In reality, however, it will take some time to analyze all the included species in both complexes in order to confirm unique combinations of consistent features that can keep them apart.



Figure L: *Oncidium obryzatum* from eastern Ecuador. Photo by Alvin Embree.

If we move on to the other large group of species that includes *Odontoglossum* and *Sigmatostalix*, we realize that these two genera are monophyletic sister-groups and can be maintained as separate genera. And there should be few problems in separating the two based on morphological features, which I am sure most of the readers are familiar with. So let's leave *Sigmatostalix* and move on to *Odontoglossum sensu lato*. And this is where we run into the two small and basal side-branches that cause some taxonomic problems. Because they diverge from the main evolutionary stem near the base, I assume that they were separated at an early stage. We can call these two groups the *Oncidium boothianum* Rchb.f., clade, which includes *O. obryzatum*

Rchb.f. & Warsz., *O. obryzatoides* Kraenzl., and *O. zelenkoanum* Dressler & Pupulin. The second group is the *O. chrysomorphum* Lindl., clade, which includes *O. tipuloides* Rchb.f., and *O. trinasutum* Kraenzl. There are a few other species that probably belong here as well but we have no available DNA data at this time so we leave them alone for the mo-



Figure M: *Oncidium zelenkoanum*, Panama, with the typical unifoliate and purple-mottled pseudobulbs. Photo by Stig Dalström.

ment. In any case, the species in these two groups are so similar in most aspects that it is virtually impossible and rather meaningless to try to keep them apart. The problem is that if we don't include them in *Odontoglossum* sensu lato, we have to give them new and separate names according to the nomenclatural rules. If we include them in *Odontoglossum* we can keep them together as a "complex" that have evolved in a separate direction based on a different pollination strategy, just like the "*Solenidiopsis* complex" and the "*Cochlioda* complex".

So how can we distinguish this *Oncidium*-looking complex of species then? It turns out that it is not that difficult after all. We simply have to look at the plant morphology rather than the flower morphology. All members of the *O. boothianum* and *O. chrysomorphum* groups have unifoliate, glossy and generally purple-mottled and *Odontoglossum*-looking pseudobulbs. These are very distinctive features that are useful even in a dried state. In general, species in the *Oncidium altissimum* complex have bifoliate, usually plain green to yellowish or brownish pseudobulbs without purple mottling. In general, the genus *Oncidium* is centered in Mexico, Central America, in the Caribbean area and along

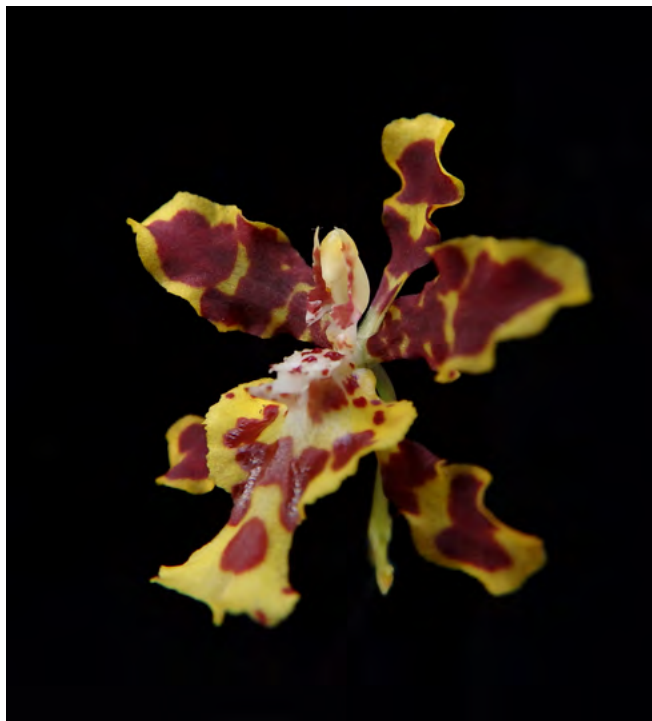


Figure N: *Oncidium zelenkoanum*, displaying less typical *Oncidium*-looking features.

the northern coast of South America. Plants of *Odontoglossum* are generally Andean orchids with just a couple of species in the "*Oncidium*" *boothianum* complex extending into Panama and Costa Rica. As confusing and "wrong" as this may seem at first, we simply have to get used to not looking at flower morphology alone in order to identify which genera these orchids belong to, but include studies of the vegetative features as well. Floral features are excellent in identifying individual species though.

LITERATURE CITED

- Chase M. W., N. H. Williams, K. M. Neubig and W. M. Whitten. 2008. Taxonomic transfers in *Oncidiinae* to accord with *Genera Orchidacearum*, vol. 5. *Lindleyana* 21 (3.): 20—31 [inserted in *Orchids*, *The Bulletin of the American Orchid Society* 77 (12), with separate pagination].
- Dalström, S. 2012. New combinations in *Odontoglossum* (Orchidaceae: *Oncidiinae*) and a solution to a taxonomic conundrum. *Lankesteriana* 12(1): 53—60.
- Reichenbach, H. G. 1870. New garden plants, *Miltonia warszewiczii*; *Odontoglossum weltonii*. *Gard. Chron.* 1(5): 417.

OBITUARIES

ALAN MOON

By Brent Elliott

Photo by Henry Oakeley

Alan Moon died on 1 February 2016, aged 78, having entered the orchid-growing profession at the age of 15. He later recalled having his successful



job interview at McBean's Orchids, and meeting Val Walker, his future wife, on the same day. They were married early in 1958, and went on to have two children and a grandchild, while Alan divided his career between McBean's and the Eric Young Orchid Foundation (EYOF).

He met Eric Young in 1958, and in 1961 left McBean's Orchids to work for what was then the Mont Millais Nurseries in Jersey. Eric Young's previous orchid-grower, Ray Bilton, moved to McBean's Orchids at the same time. Alan set to work growing and eventually hybridising cymbidiums, and such was his success that in 1963 Eric Young put him in charge of the entire collection. In 1967 he returned to McBean's Orchids, and stayed there for five years before Eric Young brought him back to Jersey

as nursery manager. Thereafter his entire career was spent in Jersey with no further straying.

Eric Young had built up one of the greatest collections of orchids of the late 20th century. Although it contained species, its major feature was the immense range of hybrids, many of them bred by Eric Young himself and, from the 1960s onwards, by Alan. So great was the range of genera and species involved in the hybridisation programme that it was widely assumed that their goal was to produce an Eric Young cross from every orchid genus. And over the years the nursery grew, the propagation facilities progressed from an upstairs kitchen to a modern laboratory, and eventually Eric Young acquired a completely new site at Victoria Village for a state-of-the-art complex. In the middle of construction, in 1984, Eric Young collapsed and died while on his way home from an RHS Orchid Committee meeting.

Eric Young wanted his collection to be maintained in perpetuity and kept open for the public, and had set up the EYOF, which took over the direction of the collection after his death. The new premises were opened in 1986 and Alan was the curator. During his tenure, the EYOF was awarded the George Moore Medal about 15 times (in unbroken succession from 1991 to 2006). It was awarded four Gold Medals at Chelsea, and numerous awards at other shows, and staged a major exhibit at the World Orchid Conference in Glasgow in 1993. In 1990 and 1996, Alan received both the Williams Memorial Medal and the Mrs F E Rivis Prize; he was awarded the Lawrence Medal in 1991; and received the Westonbirt Orchid Medal five times.

In 1985, Christopher Bailes joined the EYOF as its manager. Alan collaborated with him on *Orchids... and how to grow them* (1989) and four years later collaborated with OSGB founder John Blowers on *Your First Orchids* (1993). During the 1980s he provided facilities for Don Wimber, the great American orchid grower who had recently retired, to experiment with the use of colchicine in the production of tetraploids, especially with *Phragmipedium*. These, with calanthes, miltonias, odontoglossums, paphiopedilums, and others - all issued from the EYOF's hybridising programme, many of them going on to win awards around the world.

Alan Moon was made an Associate of Honour in 1993 and received the Victoria Medal of Honour in 1999, both from the RHS. His last years were darkened by increasing disability; photographs show him progressing from crutches to wheelchair.

Ed: Brent Elliott is the Historian (formerly the Librarian) of the Royal Horticultural Society. His writings include *The Royal Horticultural Society and its Orchids*, published as *Occasional Papers from the RHS Lindley Library*, no. 2 (2010).

Reprinted with permission from Lady Samantha Hurley, Editor and Brent Elliot, article author of the *Orchid Society of Great Britain Journal*, Volume 65, No. 2, May – June 2016

PROFESSOR THOMAS SHEEHAN

By Andy Easton

One of the great figures in modern day orchids, Tom Sheehan, passed away May 24th at the grand age of 92. A graduate of Cornell, Dr. Sheehan was on the faculty of Ornamental Horticulture at the University of Florida for 37 years, retiring as an Emeritus Professor after a lengthy stint as Head of the Department.

Tom and his artistically gifted wife Marion contributed hugely to the AOS when it was a serious orchid society and readers of that time period were educated both scientifically and aesthetically with continuing series on a wide range of genera. Dr. Sheehan's nutritional publications on orchid culture in a sub-tropical environment are still cited today for their comprehensiveness and excellence of experimental method.

Although limited in more recent years by a loss of sight and the death of his beloved Marion, Dr. Sheehan maintained a keen interest in matters orchidaceous right up till his death. He visited the Redland Orchid Festival days before his death with his daughter Marian and caught up with luminaries like Milton Carpenter on what was to be his final orchid occasion.

A man who gave generously of his time and resources, I particularly remember when the AOS was setting up their new greenhouse at the now sadly defunct Delray Beach location. Tom stepped

up with a very large check to cover necessary completion expenses. He did so many things for orchids and orchid people, always in a quiet, non-attention-seeking way.

When the great Miami World Orchid Conference was held in 1984, Dr. Sheehan was Chairman of the Lecture Program. That was the last really horticultural



naturally diverse and comprehensive orchid program at a WOC!

It was my honor to name an *Odontoglossum* Alliance orchid for Marion Sheehan when she died and maybe ironic that Tom, who served many years as an advisor to the RHS Committee on Orchid Hybrid Registration, would live to see the shambles extant when orchid nonentities undid his sterling work and helped create the confusion that reigns currently.

I will end this short note with a typically laconic Tom Sheehan comment. I could always rely on Thomas, a fact checker during my tenure as Director of Education at the AOS. I had written an article about the orchid genius, Everest McDade and in his bio was a test score achieved prior to entering university. An older equivalent to the SAT scoring of today.

When I asked: “what would you say about a student scoring xxxx on a certain test”, I got the classic reply from Tom..... “I’d say he would need a lot smarter Professor than me!” Typical of the man, modest and unassuming. Ask yourself how many orchid researchers we see in 2016 and ruefully note, we will not see Dr. Tom Sheehan’s like again. May he Rest in Peace.

WALTER OFF, WALDOR ORCHIDS

By Andy Easton

Walter Off, who passed away May 18 at the rather young age of 67, was a legend in America’s only orchid dynasty. Few US orchid nurseries pass even



to the second generation and the Off story is one of three generations with hopefully a fourth generation coming along nicely. I can comment that I have never heard any orchidist say one negative word about Walt, that in itself speaks volumes. Yes, some of us worried about his health but we all knew him as a person of principle imbued with passion for his orchids and in his faith.

When I was an orchid novice attending my first Santa Barbara Orchid Show in 1973, I encountered people commenting that George Off was coming. Who the hell was George Off came to my uninformed mind? In short order we were introduced and I saw immediately that I was in the presence

of orchid greatness. Here was someone universally respected and who did business with all, due to his stellar business reputation. George told me of his long connection with major European orchid nurseries that were mere names in the AOS Bulletin for me. He, with his brother Lou, had been at the forefront of the meristem revolution spawned by Vacherot and Lecoufle. George could buy any commercially available orchid plants on a handshake, such was his reputation. We continued our association at subsequent Santa Barbara Shows especially after I moved there in 1978. George had a major stroke in late 1986 and passed away in Spring of 1987, the season he had always loved over years of quality Cattleya cut flowers.

Walter Off was George’s son, who from the mid-1960’s assumed a larger figure in the family business. He was one of those people who popped up unexpectedly but always in most welcomed visits. I remember when he visited me in Delray Beach in the early 2000’s with his son David, who was moving full speed into the business. It was essentially living orchid history as our conversations zig-zagged back and forth over decades of the family orchid business. Walt was in no sense flamboyant yet he created intricate and colorful displays year in and year out over decades of Philadelphia Flower Shows. He was a reserved yet chatty person and clearly enjoyed great esteem among his fellow orchidists.

When one looks at the timeline of Waldor Orchids, it shows a clear history of reinvention. Cut orchid blooms, route sales, plant boarding, blooming orchid plant sales, turnover orchid plant sales and now Internet orchid plant selling. Success rarely survives in a static business plan and Waldor Orchids have always been at the forefront of our industry. Walter Off has been integral to this successful transition.

Now Walt leaves this world. We might mourn his passing but his abbreviated life has been one extremely well-lived. He leaves siblings, his wife Deborah, children and grandchildren who loved and appreciated him. As a person of strong faith he must now be fulfilled in heavenly splendor. We miss him, we salute him and we acknowledge the seminal role the Off family have played in American orchids.

Odontoglossums at the Orchid Zone

The Orchid Zone, sometimes referred to as “OZ” or “the Zone” sets the gold standard for an orchid nursery noted for *Paphiopedilums* and *Phragmipediums* hybrids and species. This world-renowned nursery was begun by Terry Root, (who is also known as “the Wizard”) circa 1980. Under Terry’s direction the Zone quickly rose to international prominence by creating outstanding plants and advancing orchid hybridizing. For much of its history it produced a large number of orchid genera including *Cymbidiums*, *Masdevallias*, *Miltoniopsis*, *Odontoglossum*, *Phalaenopsis* and *Paphiopedilum*, *Phragmipediums* and *Zygopetalums*, and more. However, there’s no doubt that slipper orchids, “Paphs” and “Phrags” were always Terry’s passion.

Today, under the new ownership of John Chant the Orchid Zone continues its original focus of producing top quality slipper orchids. Premier quality remains the byword of OZ. Located near Castroville, a Central California coastal town known as the artichoke capital of the world, the Orchid Zone has ideal climate for orchid growing. The area is temperate with many orchids growing well, outdoors protected by shade cloth.

Besides slipper orchids there’s a history of rais-

ing *Odontoglossums* at the Orchid Zone. Terry resourced top-tier hybridizers, sourcing excellent Parents of *Odontoglossum* hybrids from growers in the United Kingdom, Australia, Japan and the US.



Paph Seedling House

More recently, present owner John Chant purchased the breeding stock of Tom Perlite’s Golden Gate Orchids.

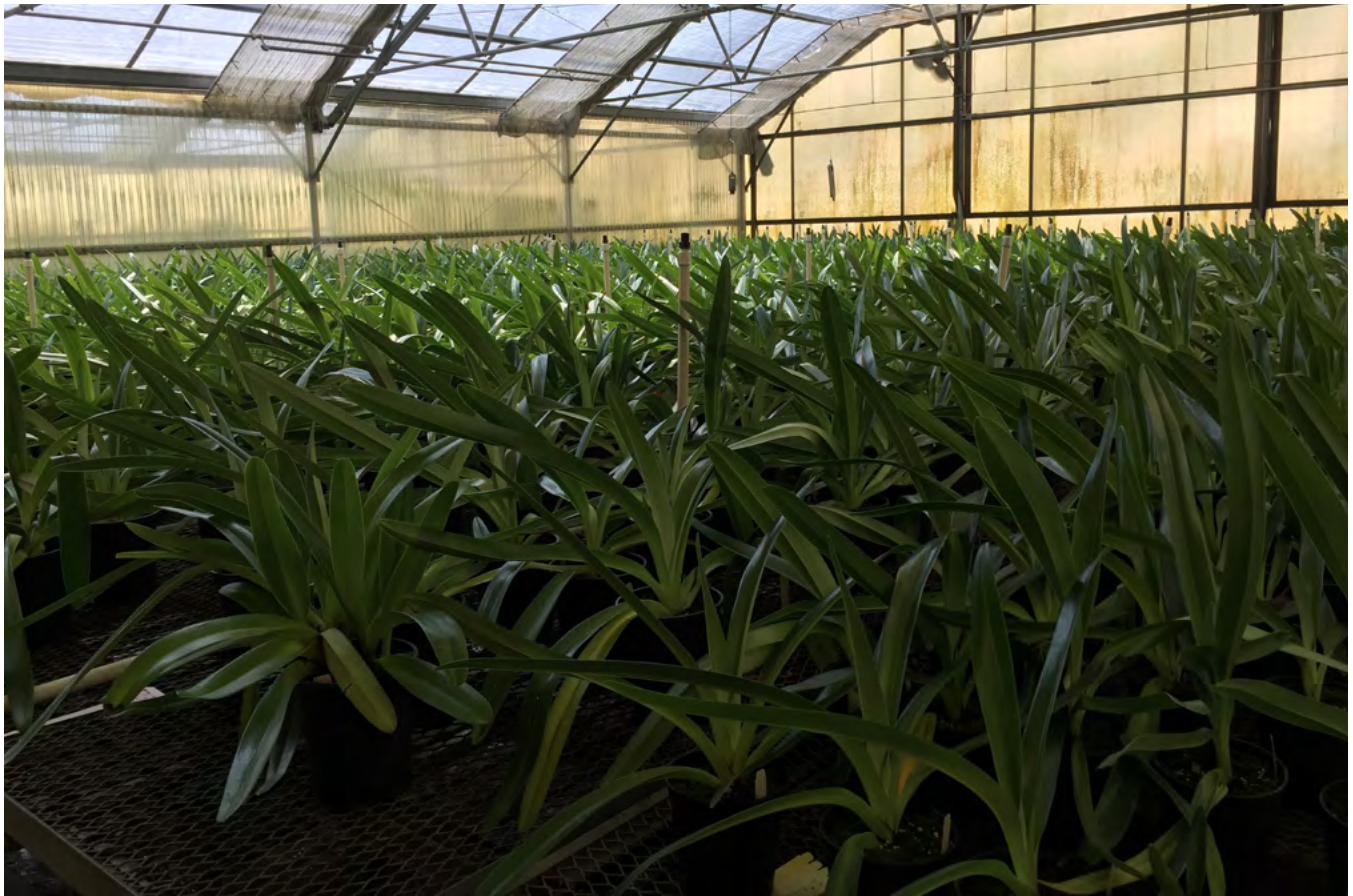
The attached photos are of plants recently in bloom at the Orchid Zone – a small sampling from their diverse and impressive collection.

John also regularly posts photos of blooming plants on The Orchid Zone Facebook page.

Odontoglossum growers interested in purchasing select *Odontoglossum* divisions can contact the Orchid Zone at orchidzoneusa@gmail.com. Visits can also be arranged, best by e-mail.



The Orchid Zone Laboratory



All the plants in this photo are *Paphiopedilum rothschildianum* seedlings



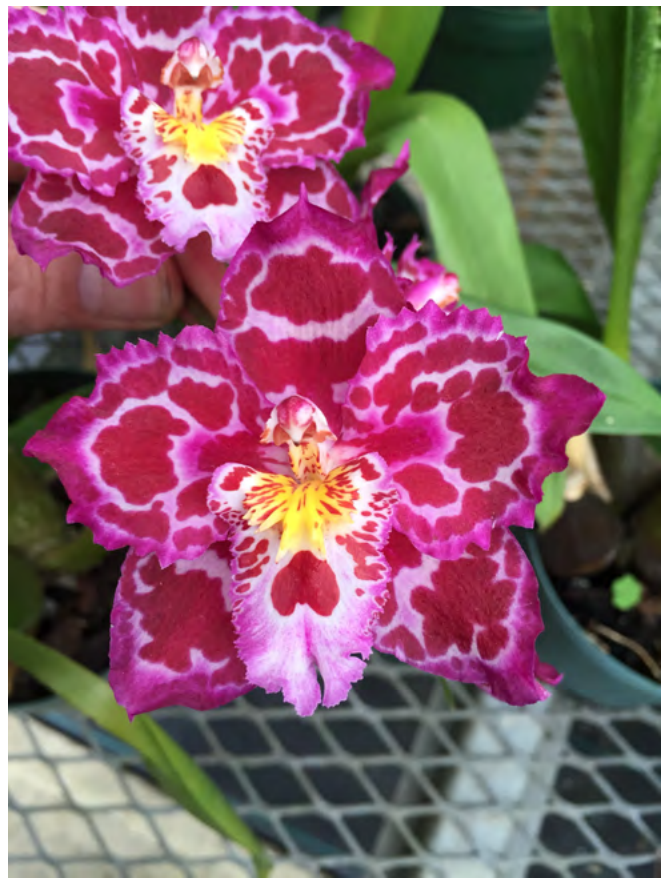
Paphiopedilum rothschildianum - a first bloom seedling



Odontoglossum Benches



Odm. (Rawdon x Jim Mintsiveris) 'Electric'



Oda. (Joe's Drum x Crystal Palace)



Odm. (Desireable x Jim Mintsiveris)



Oda. (Robert Strauss x Beaumont) - 9.5 cm spread, 18 flowers on a branching spray



John Leathers (left) with John Chant at the sales bench with an assortment of *Paph. rothschildianum* blooming seedlings



Oda (Nancy Crees x Desireable)



Oda (Panise x Eric Young)

