



## CLUB NEWS



Charles Wilson

### January 4, 2022

#### Meeting

By Janis Croft

#### Welcome and Thanks.

President Tom Sullivan opened the meeting at 6:50 pm by wishing the 38 plus attendees a Happy New Year. He then thanked the Membership Committee (Membership Veep Linda Stewart and Dottie Sullivan) for greeting our guests and new members and making them feel welcome. Tom

then thanked Dianne Batchelder for the treats and coffee and gave a special thanks to all that stayed and helped clean up after the holiday party last December. He reminded all to remember to Drop a Dollar for the treats and informed us that the Silent Auction would end after the presentation and coffee break.

**Club Business.** Linda welcomed our one visitor and introduced our new members, Cliff Bienert, Julie Smith and Paul Freas and Kathleen Summa, as well as Jimmy Broussard from Louisiana, Trish Fullerton from Texas and Donna Lewis-Coates from St. Augustine. Linda reminded all that it's time to renew your membership. The dues are \$20 for an individual or \$30 for a family if paid by check. You can pay at the front table or send by mail to Linda Stewart, 1812 Diana Drive, Palatka 32177, or for an extra dollar use these [PayPal links](#). Linda then asked the December and January birthday people to raise their hands for their free raffle ticket. As our Sunshine Coordinator also, Linda announced that if you know of anyone in need of a cheering up or a get-well card, let her know by emailing her at [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org).

**Orchid Shows in Florida this Month.** The January Tamiami show has been postponed until May so Krull Smith is hosting the Apopka International Orchid Festival on Jan. 14-16 and 21-23 with several vendors that were geared up for Tamiami. The Fort Lauderdale Orchid Society show will be



January 21-23 and the Florida West Coast Orchid Society's show will be January will be Jan. 29-30 in Seminole. Check the website calendar for [details here](#).

**Library.** Librarian Howard Cushnr was unable to attend but as always, encouraged all to use the library collection listed on our [SAOS website](#). If you would like a book or magazine, send a request to [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org) and he will bring the item(s) to the next meeting.

**Repotting Clinics.** We are moving the clinics to the Southeast Branch Library, [6670 US-1 N, Saint Augustine, FL 32086](#), starting Feb. 5. The clinics are held on the first Saturday of the month until through October and run from 10 – 1 pm.

**Supplies.** If you need supplies, email [info@staugorchidsociety.org](mailto:info@staugorchidsociety.org). We have Potting Mixes, Butterfly Clips, and Fertilizer Baskets and SAOS T-shirts.

**SAOS Program.** Charles Wilson, Orchid Hobbyist and AOS Judge, was our virtual speaker this month, joining us from his home in Georgia. He has been growing orchids for over 40 years. He currently serves as Chair of the Conservation Committee for the AOS and is a member of the Species Identification Task Force. He holds BS and MS degrees in Zoology and served 25 years as Director of the Memphis Zoo.

Charles started his presentation by first announcing that the AOS is looking to train judges. If anyone is interested, they should contact [judges@aos.org](mailto:judges@aos.org). He then shared his screen presentation on Bulbophyllums and proceeded to talk to us about their history and cultivation along with many



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## Upcoming Orchid Events

### January 2022

- 8 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 8-9 Sarasota Orchid Society Show  
Sarasota Municipal Auditorium
- 11 JOS Meeting, What's Wrong?, 7 pm  
Courtney Hackney  
Mandarin Garden Club
- 12 SAOS Virtual Show Table, 7:00 pm  
Courtney Zooms into Cyberspace  
An Invitation Will be Sent by Email
- 21-23 International Apopka Winter Orchid Show  
Krull Smith, 2800 W. Ponkan Road
- 14-16 Tamiami International Orchid Festival  
Dade County Fair Expo Center  
POSTPONED UNTIL MAY
- 21-23 International Apopka Winter Orchid Show  
Krull Smith, 2800 W. Ponkan Road
- 21-23 Fort Lauderdale Orchid Society Show  
Fort Lauderdale/Broward Convention Ctr
- 29-30 Florida West Coast Orchid Society Show  
Seminole Recreation Division

### February

- 1 SAOS Meeting, 6:30 pm  
Thanh Nguyen, Springwater Orchids  
Multifloral Paphiopedilums
- 5 SAOS Repotting Clinic, 10 am til 1 pm  
Southeast Branch Library  
6670 US-1 N, 32086
- 5-6 Venice Area Orchid Society Show  
Venice Community Center
- 9 JOS Meeting, Topic TBA, 7 pm  
Art Chadwick, Chadwick Orchids  
Mandarin Garden Club
- 10 SAOS Virtual Show Table, 7:00 pm  
Courtney Zooms into Cyberspace  
An Invitation Will be Sent by Email
- 11-13 Greater Orlando Orchid Society Show  
Orlando Garden Club
- 12-13 Port Saint Lucie Orchid Society Show  
Port St. Lucie Botanical Gardens

- 12 Florida North-Central AOS Judging, 1 pm  
Clermont Judging Ctr, 849 West Ave.
- 12-13 Boca Raton Orchid Society Show  
Safe Schools Institute
- 25-27 Naples Orchid Society Show  
Moorings Presbyterian Church

### March

- 1 SAOS Meeting, 6:30 pm  
Sarah Hurdel, Orchid Hobbyist  
Habenarias
- 4-5 Englewood Area Orchid Society Show  
Ann & Chuck Dever Regional Park
- 4-6 Martin County Orchid Society Show  
Martin County Fairgrounds
- 5 SAOS Repotting Clinic, 10 am til 1 pm  
Southeast Branch Library

### St. Augustine Orchid Society Organization

President	Tom Sullivan <a href="mailto:tomjs91@gmail.com">tomjs91@gmail.com</a>
Vice President Communications	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
Vice President Events	Dianne Batchelder <a href="mailto:ladydi9907@aol.com">ladydi9907@aol.com</a>
Vice President Membership	Linda Stewart <a href="mailto:bindstew@hotmail.com">bindstew@hotmail.com</a>
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Treasurer	Cathy Mayo <a href="mailto:allatoonalady@gmail.com">allatoonalady@gmail.com</a>
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Exhibit Committee Chair	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
Librarian	Howard Cushnir <a href="mailto:hscushnir@gmail.com">hscushnir@gmail.com</a>
Newsletter Editors Webmasters	Sue and Terry Bottom <a href="mailto:sbottom15@gmail.com">sbottom15@gmail.com</a> <a href="mailto:bottom406@gmail.com">bottom406@gmail.com</a>



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colorful photos. He also dedicated this talk to his mentor, Joan Levy, and showed a photo of her greenhouse which had a huge *Bulbophyllum phalaenopsis* 'Magnifico' whose leaves hung from the ceiling to the ground.

Louis-Marie Aubert du Petit-Thouars provided the first identification of *Bulbophyllums* as a genus. There are 2,967 published species names with 2,200 valid species which are divided into 67 sections. Currently there are approximately 400 species in cultivation. When considering growing *bulbophyllums*, Charles advised that one consider the following. Is it a synonym of which there are several species names which represent only one true species? He showed us examples later on where plants, with flowers of differing colors, had different names but in reality, were all the same species. One needs to consider the size of the plant as bulbos can range from miniature to enormous in size. Also, you might want to consider the duration of the flower and how long the inflorescence extends above the foliage as well as the distance between the pseudobulbs because this will determine if you have enough room to successfully grow the plant.

There are three things that distinguish *bulbophyllums*. First their pseudobulbs are singly jointed, second their lip is hinged from the column foot and third, their inflorescences form either from the rhizome or the base of the pseudobulbs. A *bulbophyllum* flower has a dorsal sepal, column, petals, lip and lateral sepals which can either be separated or fused which encourages air flow up to the lip which then moves and attracts pollinators.

Charles then described the culture that *bulbophyllums* enjoy. It is best to keep them warm at night (65-75 with a minimum of 55) and a day maximum in the 90's. They like good bright light (2500 fc for six hours) with good air circulation. They like high humidity (min. 60%, better at 75%) and they like constant moisture with a buoyant and light media with "perfect" drainage. Each time he listed one of the above, he interspersed it with "they like to be warm." There are a few cool growing varieties which can be found at [www.orchidspecies.com](http://www.orchidspecies.com). If your *bulbophyllum* doesn't

flower, he stated that it could be they were too cold during the nights. His mix for growing in pots is 7 parts small bark, 1 part small-medium charcoal and 1 part small-medium perlite. He puts a substantial amount of white styrofoam peanuts in the bottom of the pot and a small amount of mix. He then uses rhizome clips to hold the plant in position and push the roots down to the peanuts. The effort is to make water flow through the media freely with no pooling of water. On some varieties that tend to grow laterally, he prefers to plant on a raft which is anything that hangs either flat or vertically. He puts the roots directly next to the raft and then adds sphagnum moss on top. This protects the roots when he securely ties the plant to the raft.

In 1822, Thouars first described the *Bulbophyllum longiflorum* which grows from Africa to the islands around Australia. Here is where synonym terms arise. This plant has a variety of different color combinations and approximately 27 different scientists collected the plant in the wild and named each differently. One can check for synonyms at <http://wcsp.science.kew.org/>

Next he proceeded to show us slides of a few species and describe their unusual characteristics. Ones that have the typical foul odorous smell were designated by a "nose" graphic. He recommended that new growers look for *Bulb. pecten-veneris* or *purpurascens* as both are easy to grow. If you are planning on growing in pots, look for plants where the pseudobulbs grow close together such as *Bulb. guttulatum*.

**Show Table.** Sue started the discussion stating that she had been sick for a few days and not able to get out to her greenhouse. When she did she found several flowers that looked like their edges had been burned and she showed an example of one. Thrips had arrived. She used Overture (2 tsp/gal) and poofed each flower. The next day she saw no signs of live Thrips and she then used an Orthene drench on all plants.

Courtney Hackney was unable to attend so Harry McElroy reviewed the three *cymbidiums* he brought and Steve Hawkins showed his *Bulb. medusa* and discussed the other three bulbos brought to the Show Table. Steve's stunning *Angraecum* was over 20 years old. There were also several large and beautiful *cattleyas*.

We will continue conducting our Courtney Hackney led Virtual Show Table via Zoom. The next one will be at 7 pm on January 12 which is the 2nd Wednesday of the month. Watch for an email invitation. Each month's Virtual Show Table is recorded and posted on our website.

**Meeting Conclusion.** The evening concluded with the Silent Auction and Raffle table. Thanks to the helpful hands that stayed to clean and store the tables, chairs and room.



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## Repotting Clinic Southeast Branch Library

We are looking forward to having our repotting clinics at the Southeast Branch Library. We will be setting up under the eaves just south of the main entrance. The first Saturday of the month from 10 am til 1 pm, February through October, St. Augustine Orchid Society members are available to talk with you, answer questions and help you repot orchids. We are there to help. Bring any plants you would like to talk about or just stop by to chat about orchids.

**When:** Saturday February 5, 10 am til 1 pm

**Where:** Southeast Branch Library  
6670 US-1 N, St. Aug 32086

## Shop Smile.Amazon

Be sure to designate the St. Augustine Orchid Society as your favorite charity and they will donate a portion of each purchase to SAOS.. Be sure to do your shopping from smile.amazon.com on your web browser or activate AmazonSmile in the Amazon Shopping app on your iOS or Android phone (from the Settings or Programs & Features menu). On your web browser, you can add a bookmark to [smile.amazon.com](https://smile.amazon.com) to make it even easier to shop with AmazonSmile.



## American Orchid Society Corner

### Webinars

January 7, 8:30 pm, Everyone Invited  
Greenhouse Chat Orchid, Q&A - Ron McHatton  
January 13, 8:30 pm, AOS Members Only  
Mounting Your Orchids – Michael Coronado

### Orchids Magazine this Month

Brassavola cucullata – Mirenda & Hamilton  
Cattleya cernua – Judith Rapacz-Hasler  
Growing in Wine Coolers – Alfonso Doucette  
After the Cull – Sue Bottom

Photos of Latest AOS Awards

## February 1 Monthly Meeting

Thanh Nguyen, Springwater Orchids

Thanh loves orchid species, and although he grows and sells orchids of all genera, his true love has always been the genus Paphiopedilum. His passion for paphs has resulted in the production of numerous award-winning plants. Thanh will talk to us about the multifloral complex paphs, those statuesque beauties with long lasting flowers. He is a collector of fine plants who grows, sells, breeds, and enjoys sharing his experiences with his customers and colleagues. We'll have our normal raffle table. Friends and guests are always welcome!



**When:** Tuesday February 1, 6:30 til 9 pm

**Where:** Memorial Lutheran Church  
3375 US 1 South, St. Aug 32086

## Renew Your Membership

We'll be collecting dues for 2022 from now through March. Dues are \$20 for an individual and \$30 for a family. You can mail your membership check to SAOS c/o Linda Stewart, 1812 Diana Drive, Palatka 32177. If you prefer to renew your membership online, you can use the PayPal link on our [website](https://www.saos.org). Easy Peasy!

### Orchid Conservation Alliance

#### Conserving Orchids by Conserving Orchid Habitat

The OCA conserves orchids by funding habitat preservation. Since inception in 2005 we have helped with the purchase of over 3000 acres of orchid habitat, protecting hundreds of orchid species in Brazil, Ecuador and Colombia. Many species of rare birds, trees, frogs, mammals also find refuge in these reserves.

*Dracula gigas* (L), *D. trigonopetala* (R)  
Dracula Reserve, Ecuador

*Dracula lemurella* (L), *Lepanthes escifera* (R)  
La Selva de Ventanas Reserve, Colombia

**We hope you will join us in promoting this important work.** We invite you to become a member of the OCA, to make a donation, to take a trip with us to see Orchids in the Wild®, and to purchase merchandise through our website. Since we have no paid staff, all proceeds support orchid conservation. The OCA is a non-profit 501(c)(3) corporation.

For more information: [www.orchidconservationalliance.org](http://www.orchidconservationalliance.org)



# CLUB NEWS

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*Bulb. serratotruncatum*

© Terry Botta



# CULTIVATION



## Orchid Questions & Answers

by Sue Bottom, sbottom15@gmail.com

**Q1.** I decided to try the Bonide Chickweed, Clover and Oxalis weed killer. It did a pretty good job. The sprayer it comes with is not that great and it seems like you need to get good coverage on the leaves for it to

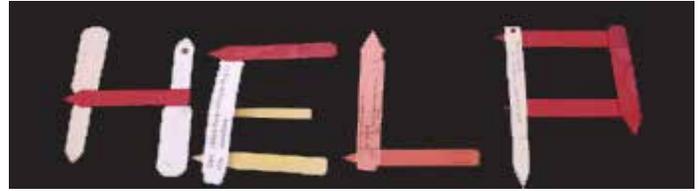
be effective. So I tried a fine mist sprayer from RePotMe.com and it worked much better, Thus far, I have not seen any negative effects on the orchids.

**A1.** That's great information. I had to buy from EBay because the local stores didn't carry it and Amazon wouldn't ship to my location. I'll try that on the oxalis growing around my stanhopeas, they have resisted everything I've sprayed on them.

**Q2.** This dendrobium has really grown. It has been in this pot for the past three years and is growing out of the pot. How should I repot it and how much bigger the pot should be?



**A2.** Dendrobium canes grow so closely together that they can spend many years in the same pot. You may consider just dropping it into a larger pot. If it is currently potted in bark, you might want to jet out all the bark you can by turning the plant and pot upside down and spraying the media with a hand nozzle set to jet. Then just drop it into a larger pot and let the roots grow into and around the new pot..



**Q3.** I'm having an issue and can't seem to identify problem. It seems to be moving throughout the plant.



**A3.** I think that is one of the Cercosporoid fungi. You can see a pentagonal blotching in the leaf discoloration. It is really pervasive in dendrobiums. You'll have to remove the damaged leaves to remove the source of inoculum from your growing area. I suspect the cooler nights we've been having caused condensation on the leaves which helps the fungus develop. More air movement, less leaf wetness and spraying during danger periods helps. Daconil and Pagaent are highly rated for it, you can use ThiomyI or Banrot in a pinch.





## Phosphorus in Fertilizer by Dr. Courtney Hackney

Winter might seem like a strange time to be discussing fertilizer, as orchids require less fertilizer this time of the year. However, this is the time where the success of our growing, including fertilizer application, is manifested in the flowers we admire in our growing space. In December's column the results of a Texas A&M study on application rates and forms of nitrogen fertilizer on growth of *Phalaenopsis* were discussed. A second part of the study addressed the value of high phosphorus fertilizers.

The fertilizer mantra is that high phosphorus fertilizer should be applied to *phalaenopsis* (and other orchids) a few months before they flower to both instigate bud formation and increase flower count. Typically, the fertilizer regimen also includes reducing nitrogen fertilizers so that the orchid can concentrate on blooming and not growing. This was the premise tested at Texas A&M on *phalaenopsis*.

*Phalaenopsis* treated with high phosphorus and low nitrogen produced fewer flowers than those fertilized with a balanced fertilizer 20-20-20, no matter what the frequency of fertilizer application. The researcher's conclusion was that the plant had already stored all the phosphorus required to bloom in its tissues so the extra fertilizer phosphorus did not matter. There might have been different results if the plants had not regularly been receiving an excess of phosphorus. As with nitrogen fertilizer, the medium in which plants were grown may be the reason this study came to a different conclusion than conventional wisdom. The medium was 70% fir bark and 30% peat. The fine peat particles have an enormous capacity to hold nutrients like phosphorus. As a result, all treatments provided as much as an individual plant could take up. *Phalaenopsis* grown in a medium, such as fir bark alone that did not retain phosphorus might have needed additional phosphorus to flower well.

*Phalaenopsis* do not have obvious storage organs, such as pseudobulbs but are thought to store nutrients they take up and energy they acquire from sunlight in their leaves. How important are these stores to the ability of a plant to flower? That question was also addressed in the

Texas A&M study. Very important was the conclusion as flower count was reduced if fertilizer was reduced before spikes were formed, during the time spikes were forming, and even after flowers on the spike had begun to open. So, if you want the biggest and most flowers possible on your *phalaenopsis* do not stop fertilizing after plants begin spiking. At least that was the conclusion in this controlled study under ideal conditions.

Now the really big question! Does the exact formulation of a fertilizer really matter to the plant? Levels of nutrients (N-P-K) in leaves were compared to levels of these nutrients applied through different fertilizer formulations. In this study, plants were grown in bark only as well as the 70% bark, 30% peat medium. Plants grown in the bark medium were all smaller, confirming the value of peat to mixes. The surprise was that plants grown in bark accumulated more phosphorus in their leaves (as a percent) than those in a medium with peat added. The big news from this experiment was that each plant took up the same amount of phosphorus regardless of the medium. Plants grown in the peat mix were larger, but had less percent phosphorus.

No matter what fertilizer was used including, 10-30-20, 20-20-20, 20-5-19, and liquid 2-1-2, leaves contained about the same levels of nitrogen and potassium in both media. The conclusion is that fertilizer formulation is less important than the constant application of fertilizer. Nitrogen levels or fertilizer formulation did not affect flower size.

Dr. Yin-Tung Wang published the full article in the summer issue of *Phalaenopsis* 2002. Dr. Wang also provided a few additional observations useful to orchid growers that relate to other genera as well. His observation that most water was lost from pots through evaporation reinforces the importance of flushing pots thoroughly at least once a month. This is even more critical if high levels of fertilizer are applied.

Do not forget that fertilizer application is not independent of other aspects of culture. The ability to apply the levels of fertilizer used in this study requires relatively rapid drying of the media so that more fertilizer can be applied. The ability of a grower to maximize growth of an orchid depends on other variables, especially light levels, temperature, air movement, medium, pot size, etc. Perhaps the bottom line of this study is that the type of fertilizer does not matter as much as the importance of rate of application.

*Note: Dr. Courtney Hackney wrote a monthly column of his orchid growing tips for about 20 years; we are reprinting some you might have missed, this one from January 2003.*



# CULTIVATION



*Bulbophyllum medusae* 'Sunset Valley Orchids' CCM/AOS  
Grower Fred Clarke, photographer Charles Rowden

## **Bulbophyllum medusae**

by Fred Clarke, reprinted with permission

In December 1999, while I was wondering if my computer was going to blow up or make a safe transition into 2000, William Roley, an amateur grower in San Diego County, California, made an appearance at my greenhouse with a sickly little plant of *Bulbophyllum medusae*. He had given his best at growing it and had decided to let someone else try, probably because he did not want to be responsible for killing it. The plant was barely surviving as three pseudobulbs in a 4-inch wooden basket filled with sphagnum moss. At that time, bulbophyllums were a new interest of mine and a *Bulb. medusae* would make an interesting addition. I had been growing long enough to know that I did not want to spend much time as an orchid intensive care unit, but I accepted the poor little plant.

I did a little reading on the conditions of *Bulb. medusae* and decided the best place for it was in the brightest area of the phalaenopsis greenhouse. This area has light levels of about 2,000 foot-candles with temperatures ranging from lows in the 60s F, rarely exceeding 85 F. Yet the plant continued to do poorly and I decided the sphagnum was decaying and had soured, killing most of the roots and

almost any hopes for success. However, with signs of a few new roots, the plant was repotted in the spring into a 4-inch basket with fresh sphagnum moss. I kept the plant evenly moist and by midsummer I had the first pseudobulb and by autumn a second pseudobulb. The following year, multiple leads started and the plant began doubling its size annually. In 2003, I slipped the 4-inch basket into an 8-inch basket and filled the space between the two with a mix of equal parts Diatomite and coconut chunks. The plant began to grow down the sides and soon it enveloped the basket.

By October 2005, the plant really put on a show. It bloomed with approximately 3840 flowers on 96 inflorescences with an average of 40 flowers per cluster. Getting the plant to AOS judging was a real challenge. In the greenhouse, I did not appreciate its size, but trying to get it into the car I soon realized the plant and flowers were close to 3 feet in diameter. (The AOS might want to consider an award titled CMT/AOS - Certificate of Meritorious Transportation). I took it to the Pacific South Center monthly judging where it received an 86 point CCM.

*This article appeared in the American Orchid Society Orchids magazine in July 2007 (Vol. 75:7, p. 552).*



# CULTIVATION

## INDOOR GROWING

Learning to Live Without a Greenhouse  
by Linda Stewart

I downsized and moved into a smaller house with a small yard in Palatka about two and a half years ago. Part of the process included the loss of semi-automated greenhouse, so I had to rethink how to grow my orchids. Benches were installed under the eaves of the house and pergolas built for summer growing areas. In the winter, either the plants have to be moved into a pop-up greenhouse or the pergola wrapped with clear plastic tarps, with heat provided by ceramic heaters.

The orchid collection continues to evolve to adapt to the new growing environment. Most of the vandas are gone, with the exception of neofinetias and their hybrids that are more cold tolerant and take up less real estate. Orchids that have a winter dormancy, such as catasetums, have been added. I have always been fond of miniatures (and the weird) and wanted to be able to grow some of the more unusual varieties, such as species phals, masdevallias, draculas, pleurothallis, and miltoniopsis. Outdoor growing in the summer heat here in Florida is too much for many of the cooler growing varieties, and lighting by windows indoors varies too much with the changing seasons.



*Here's the basic setup before the trays of gravel, carpet padding, etc. were added.*

Would indoor growing under lights be a solution? There is a recent series of articles on growing under lights in the AOS Orchids magazine. They are very well written and quite in-depth, but a bit too technical for me. There are, however, two easy-to-understand and really helpful articles in our archive of newsletters on the SAOS website. There is a great article in the February 2020 newsletter on growing masdevallias indoors in globe jars by Carolyn Robinson of the Gainesville Orchid Society. There is also an excellent article in the January 2021 newsletter,



*LED light fixtures are available at the big box stores. The ones with diffusers built in are easier on the eyes. They weren't currently in stock, and I didn't want them bouncing around in a UPS truck, so ordered online and opted to have them shipped to the store at no charge.*

summarizing a presentation by Brandon Silvester who grows his entire orchid collection indoors under lights. Brandon emphasizes that light levels about a third of the maximum midday outdoor brightness are sufficient because the lights are on for 12 to 14 hours continuously each day. Another benefit is LED lights run cooler and less expensively than the earlier grow lights. That prompted a couple of in-depth conversations with Brandon at our regular monthly SAOS meetings on the how-to's. A conversation with fellow member Suzanne Susko, was also helpful. Suz grows beautiful miltoniopsis indoors and is expanding into draculas. Her suggestion was to cover the sides with plastic to help maintain a more constant 70% humidity rate. Suzanne also uses a small humidifier in the

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dracula growing area. All the suggestions were extremely helpful and encouraged me to move forward.

There is a west window in my office, and space for a 24" x 48" x 6' wire shelving unit in front of that window. It was suggested that I keep all three shelves, but I opted to remove one of the shelves so that there would be ample air space between the light bar and the plants. (I should have heeded that suggestion, as the space can actually accommodate 3 shelves and the current space is filling up very fast). A 7-day timer, two LED shop lights, along with two clip on 6" fans were purchased, at a total cost of about \$125.



*Monitoring equipment: A small high/low thermometer/hygrometer designed for use in egg incubators is located on each shelf.*

I ordered plastic 10" x 20" plant trays (without holes) to hold washed gravel to help maintain adequate humidity. Reverse osmosis water is used in the bottom of the trays, and a little Physan 20 added to the water to prevent any issues with algae, etc. The gravel shelf has a higher evaporation rate so humidity normally is 50 to 60%. Some articles suggested the use of carpet padding as a way of maintaining moisture and humidity, so I decided to experiment with it on the lower shelf. The local carpet store was kind enough to donate a piece to the cause. Unfortunately, it was pink in color and not aesthetically appealing, so a thin layer of gravel hides the pink. The bottom shelf with the carpet padding stays wet longer and maintains a steady humidity level in the mid 60% range, about 5% to 10% higher than the trays with gravel only. However, I wanted to provide the draculas and masdevallias with their preferred 70% humidity. Taking Suzanne's suggestion, three sides of the shelving unit are covered with plastic. I had a hard time with that. It was hard to make it look OK and being a little OCD, I just couldn't quite bring myself to cover the front.



*Here's the carpet padding – I just couldn't go with that color! So I added a thin layer of gravel to disguise it.*

Appearance is important, and I wanted to be able to see and enjoy the orchids.

To help accommodate the need for higher and more consistent humidity levels, a small collection of glass bowls that were once used as little terrariums were put into service. Decorative gravel along with a little pure RO water was placed in the bottom of each bowl to add additional humidity. Inexpensive plastic seedling trays with vented hoods are also available, although the hood should be removed for a few hours daily to ensure proper air flow.

Using the SAOS light meter (available through our library), I measured the intensity and found it to be 450 foot candles directly under the lights and 400 foot candles around the periphery. The light bars weigh basically nothing, and are hanging from chains, so they can easily be adjusted up or down should there be an issue with too much or too little light. They also don't produce heat like the old fluorescent light bars used to do, so not as much space is required between the light fixture and the upper shelves. Temperature and humidity are monitored on a daily basis, using the small hydrometer/thermometers intended for use in egg incubators.

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*Still a work in progress, but so far everything seems really happy.*

It is still a work in progress, but all of the orchids, African violets and rex begonias seem to be quite happy. I am sure that the violets and begonias will again be relegated back to the guest room window as the collection grows and space becomes an issue. A few of the orchids that were suffering



*Plastic added to three sides and across the top to help maintain humidity, and declining in my outdoor conditions have already visibly shown improvement. It will be interesting to see how the two little miltoniopsis seedlings purchased at the Gainesville Orchid Show, along with a couple of very special new Christmas additions will do in their new little microclimate.*



*I have always wanted to grow masdevallias and draculas – Santa was extremely good to me this year, and I can't wait for this oddity to open!*



## The Bulbophyllums

by Charles Wilson

## How to Buy and Grow Bulbophyllums



# SHOW TABLE REVIEW



**Grower Suzanne Susko**  
*Bl. Yellow Bird*



**Grower Glo MacDonald**  
*Compartmentia speciosa*



**Grower Steve Dorsey**  
*Stenorhynchus speciosum*



**Grower Courtney Hackney**  
*Paph. (moquetteanum x rothchildianum)*



**Grower Glo MacDonald**  
*Cycd. Taiwan Gold 'Orange' AM/AOS*



**Grower Sue Broussard**  
*Bc. Déesse 'French Lace' AM/AOS*



**Grower Linda Stewart**  
*Ddc. bicallosum*



# SHOW TABLE REVIEW



**Grower Sue Bottom**  
**Blc. Ancile Gloudon**



**Grower Steve Dorsey**  
**Blc. Yen Corona 'Green Genie' AM/AOS**



**Grower Walter Muller**  
**Fdk. After Dark 'SVO Black Pearl' FCC/AOS**



**Grower Susan Smith**  
**C. Southern Cross**



**Grower Courtney Hackney**  
**Epi. Annelie Wans 'Rosemarie'**



**Grower Brandon Silvester**  
**Habenaria crinifera**

Link to all Pictures. <https://flic.kr/s/aHBqjzxigH>

