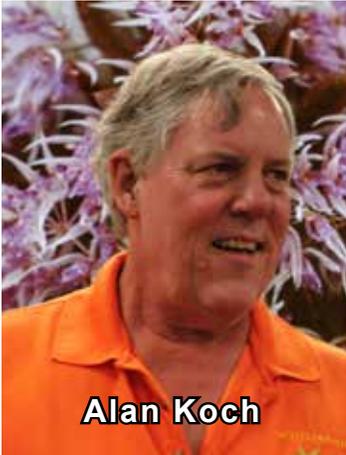




## CLUB NEWS



**Alan Koch**

### July 7 Monthly SAOS Meeting

by Janis Croft,  
secretary@staugorchidsociety.  
org

#### Welcome and Thanks.

President Bob Schimmel opened the meeting at 7:15 pm with approximately 55 attendees. Bob welcomed our eight guests and four new members. New members Steve Raibley

and Rose DiMuzio joined at the Keiki Club and Omar Gonzales and Joanne Stygles joined at the meeting. He also thanked Jeanette Smith for the refreshments. Bob reminded all to enjoy the coffee and treats while dropping a dollar in the jar.

Linda Stewart recognized our four birthday people with free raffle tickets and Bob reminded all to vote for their favorite orchid on the show table.

**Club Business.** SAOS Librarian Penny Halyburton recommended "Orchids, A Care Manual" for newbies to borrow. Remember to email Penny if you want to borrow a book (see our website for the catalog listing) and she will bring your requested books to the next meeting.

The next Keiki Club on July 19 will be about growing different types of orchids. Join us at Mark and Kathy Young's home, 160 W Genung St, St. Aug, 32086. There will be no repotting. We'll repot at Ace on August 1.

T-Shirts, name badges and orchid supplies were available for sale: T-Shirts for \$20, Name Badges for \$8, Potting mix for \$5 and slow release fertilizer for \$3. Purely Organic Fertilizer arrived and was available in 4 lb. bag lots for \$5. Thanks to Wes Dean for volunteering to help with the sales table.



The next Ace Repotting Clinic is on Aug.



1 at Ace Hardware on U.S. 1 from 9 am – 1 pm.

**Orchid Events.** The spring show season is over. You may be interested in attending the Annual Cattleya Conference on August 8 and 9, check out [odoms.com](http://odoms.com) for more info. The International Phalaenopsis Alliance Symposium is on August 21 and 22, visit [www.phal.org](http://www.phal.org) for more info.

**Show Table Review.** Courtney Hackney started his review of the Show Table by first discussing Encyclias and noting how they love to grow outside during the summer. There were a wide variety of blooming plants including an Epidendrum on a big stick with very tiny flowers, a water loving Dendrochilum with a cascade of inflorescences, a Neofinetia falcata that was well grown in a wooden basket, and a self pollinating Angraecum from Madagascar and Africa. Courtney also noted that the bifoliate cattleyas are summer blooming plants and the table's Lc. Elegance prefers high light and likes to be repotted only when new roots are forming. Ask one of our experts when to repot yours. The final discussion was about Catasetums and how to resist watering them in winter or you won't get beautiful blooms like the one on the table. Check out the photos of all our show table examples.

**SAOS Program.** From California's Gold Country Orchids, our guest speaker Alan Koch spoke on Orchid Culture 101. The first slide had three commanding words: "Water, Water, Water." First you water to wet the surface. Then you water a

**Continued on page 3**



# CLUB NEWS



## Upcoming Orchid Events

### July

- 14 JOS Meeting, 7 pm  
Alan Koch, Gold Country Orchids  
Unusual Species for Cattleya Growers
- 19 Keiki Club for Orchid Beginners, 1 pm  
Growing Different Types of Orchids  
Mark and Kathy Young's Home  
160 West Genung St, St. Aug 32086

### August

- 1 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 4 SAOS Meeting, 7 pm  
Orchid Growing Basics  
Michael Polen, Art Stone Orchids
- 7-8 Fifth Annual Cattleya Symposium  
Sponsored by Odom's Orchids  
Indian River Research & Education Ctr  
Fort Pierce
- 11 JOS Meeting, 7 pm  
Speaker and Topic TBA
- 17 Keiki Club for Orchid Beginners, 1 pm  
Staking Your Orchids  
Mark and Kathy Young's Home  
160 West Genung St, St. Aug 32086
- 21-22 22nd Phalaenopsis Symposium  
Sheraton Orlando North Hotel

### September

- 1 SAOS Meeting, 7 pm  
Orchids by the Yard, Gorilla Growing  
Ernie Gemeinhart, Enlightened Orchids
- 5 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 8 JOS Meeting, Topic TBA, 7 pm  
Speaker TBA
- 19-20 Ridge Orchid Society Show  
Lake Mirror Center, Lakeland
- 20 Keiki Club for Orchid Beginners, 1 pm  
Fall Preparations  
Carolyn and Eric Smith's Home  
160 West Genung St, St. Aug 32086

### October

- 3 SAOS at Ace Hardware, 9 am til 1 pm  
3050 US 1 S in St. Augustine  
Repotting and Plant Clinic
- 6 SAOS Meeting, 7 pm  
Green with Envy: Green Cattleyas  
Ron Midgett, New Earth Orchids
- 10-11 Fort Pierce Orchid Society Show  
Fort Pierce Shrine Club
- 13 JOS Meeting, TBA, 7 pm  
TBA
- 16-18 East Everglades Orchid Society Show  
RF Orchids, Homestead
- 17-18 Gainesville Orchid Society Show  
Kanapaha Botanical Garden

## St. Augustine Orchid Society Organization

President	Bob Schimmel <a href="mailto:schimmelr55@bellsouth.net">schimmelr55@bellsouth.net</a>
Vice President Programs	Sue Bottom <a href="mailto:sbottom15@bellsouth.net">sbottom15@bellsouth.net</a>
Vice President Membership	Linda Stewart <a href="mailto:lindstew@hotmail.com">lindstew@hotmail.com</a>
Vice President Publicity	Yvonne Schimmel <a href="mailto:yrs58@bellsouth.net">yrs58@bellsouth.net</a>
Secretary	Janis Croft <a href="mailto:croftie1984@gmail.com">croftie1984@gmail.com</a>
Treasurer	Bill Gourley <a href="mailto:wgourley@bellsouth.net">wgourley@bellsouth.net</a>
Directors at Large	Dianne Batchelder <a href="mailto:ladydi9907@aol.com">ladydi9907@aol.com</a> Mary Colee <a href="mailto:mcolee4@gmail.com">mcolee4@gmail.com</a> Lola Stark <a href="mailto:seacuter@bellsouth.net">seacuter@bellsouth.net</a>
Exhibit Committee Chair	Harry McElroy <a href="mailto:cymbidiuman@msn.com">cymbidiuman@msn.com</a>
Librarian	Penny Halyburton <a href="mailto:phalyburton@comcast.net">phalyburton@comcast.net</a>
Newsletter Editors Webmasters	Sue and Terry Bottom <a href="mailto:bottomt@bellsouth.net">bottomt@bellsouth.net</a>
Operations Committee Chair	Jeanette Smith <a href="mailto:jesmith@watsonrealtycorp.com">jesmith@watsonrealtycorp.com</a>



# CLUB NEWS

## Continued from page 1

second time to aerate the media and the roots. On the third watering, you will leach salts from your potting mix. Much depends upon the quality of your water to determine the duration of your watering. The harder the water, the longer the watering cycle. It typically takes 45 minutes of watering to leach out the salts. Also oxygenate your water. This kills potential pathogens and leads to elongation and bifurcation of your roots - both good things! Remember also to pre-water before fertilizing which assists the roots in absorbing the fertilizer faster. Roots only have 20 to 25 minutes to absorb nutrients after fertilizing. If you have salt sensitive varieties, flush after fertilizing. This enables the plants to better cool themselves in the high heat of summer.

Ideally (per Peterson), your water's pH should be 6.2 but anywhere between 6 and 7 works - the range that the roots will be able to absorb most nutrients. If you have good water, water less. However you still need to oxygenate well. With good water, you can also use more fertilizer. He recommended MSU if you are using rain water. He has his fertilizer, Plantex, formulated for his water's pH but that's only possible because of his business and usage volume. Calcium and magnesium are essential for strong growth in orchids. They can only assimilate as much as they need.

Your media choice is based on how you water. If frequently, good drainage is a must. If watering less frequently, choose a media that will retain some moisture like perlite which holds air and water. No matter what your watering schedule is, your pots must have good drainage and allow for good air flow. If the roots turn green during watering, then your plant photosynthesizes from the roots. They need clear plastic pots or mounting. As an aside, he recommended buying cheap panty hose from the dollar stores to use to tie plants onto mounts. The roots won't go through the hose but will be pushed back to attach to the mount and grow. Then by the end of the summer, your panty hose will have

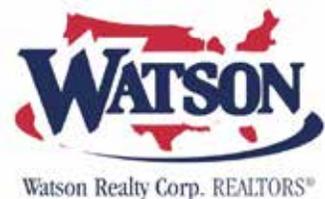


rotted away and your plant will be beautifully attached to its mount. When deciding to mount, study how the plant grows in nature and mount or not, accordingly. He shared slides of a potted plant that was growing horizontally out of the pot. The roots were in a line all hanging straight down. Finally, look at your plants. When plants are under a bit of stress due to lack of water, they lose their "gloss." And remember the three steps to growing orchids: Water once for the surface, water twice for the media, and water a third time for leaching.

**Meeting Conclusion.** Dick Roth announced that Sue Bottom's *Dendrochilum filiforme* 'Willow Pond' received the Member's Choice Award. The raffle table was the final event of the evening with Dianne Batchelder and Mary Colee presiding. Thanks to all of those that volunteered to stay and clean up the room.



Thanks to Watson Realty  
and Jeanette Smith for the  
use of their meeting space  
at 3505 US 1 South



# CLUB NEWS

## June 14 Keiki Club

Repotting Phalaenopsis

Almost two dozen familiar and new faces came to the June Keiki Club Get Together where Mary Colee talked about repotting phalaenopsis. Mary talked about how most phalaenopsis you buy in the stores are potted in sphagnum moss. The commercial growers use a high grade of sphagnum moss because they understand how short lived the lesser quality of moss is. This moss typically lasts from 2 to 4 years in the pot although you don't know how long that phalaenopsis has been in the moss when it first comes into your care. When the moss starts to degrade, pot it into your mix of choice. If you're using sphagnum, only use the AAA grade of sphagnum moss and if you're a heavy waterer, add inert materials like sponge rok, charcoal or hydroton to the sphagnum to help it dry a little more quickly. Alternatively a blend of ProMix and sponge rok works well for phalaenopsis. This can be top dressed with a little sphagnum moss (even the lower grade sphagnum) to help prevent the ProMix from washing out of the pot. Mary repotted a phalaenopsis to demonstrate the how and why of it.



We then had an open discussion on different orchid topics, like the problems some are having with mealybugs, some preliminary results on the use of Purely Organic fertilizer that Keith Davis talked about, and making hardware cloth rafts for stanhopeas like the ones Jill Godfrey talked about. Several attendees brought some plants to repot so we got to work putting them into their new homes. We had a nice time talking about orchids with other members, guests and visitors.



## July 19 Keiki Club

Growing Different Types of Orchids

The Keiki Club for orchid beginners will be Sunday afternoon on July 19 from 1 to 3 pm. You may have questions about how to grow some different types of orchids like phalaenopsis, oncidiums, dendrobiums and cattleyas. We'll discuss places to grow the plants outside during the summer, how often they like to be watered and what types of potting mix are suitable. Call Sue at 797-4360 if you have any questions.



**Where:** Kathy and Mark Young's Home  
160 West Genung Street, St. Aug 32086

**When:** Sunday, July 19, 1 to 3 pm



## August 4 Monthly SAOS Meeting

Hands On Approach to Orchid Growing

Michael Polen of Art Stone Orchids in St. Pete will be outlining his hands on approach to orchid growing at the August 4 meeting. Michael is a very down to earth speaker who will talk about how to grow the healthiest and happiest orchids. There won't be any pretty pictures or a power point presentation, but there will be plenty of great tips on how to get the most from your orchid addiction.

Mike and his wife Paula became interested in orchids through their mothers who both grew them. In the early 1980s on a fishing trip to the Florida Keys, they shopped for orchids on the way home for their mothers. It wasn't too long before they were buying orchids for themselves. They put orchids around their fountains to enhance the fountain sales and the orchids were so popular customers were stopping for orchids and the orchid business was born.



# INSPIRATION



*Wolfgang & Miki Schau and one of their Lions*

© Terry Bottom '15



# CULTIVATION

## Your Orchids in July

based on Robert Scully, Ned Nash & James Rose checklists, courtesy of the AOS



**General Growing Tips.** The heat and humidity of summer are here. When day time temperatures rise above the 90 to 95F range, you'll see orchid growth start to slow. Water slightly less frequently than during the spring. Orchid plants require lots of fresh air to keep the plant leaves cool. Consider spraying under benches or the planting area to lower temperatures a few degrees. Pests are most active during the warm months. Be vigilant in observing signs of damage and treat quickly if they appear. The bulk of your repotting should be complete.

**Cattleyas.** Cattleyas can be watered and fertilized daily if mounted or every second or third day if in a coarse, freely draining medium. Applying adequate fertilizer is the best way to ensure the best blooming in that the growths your plants are making now are the source of future blooms. Be careful to peel back the flower sheaths so the emerging buds don't rot. Also remove dried cataphylls to eliminate hiding places for scale. Higher temperatures and humidity may lead to fungal or bacterial rot. Watch for signs of pests or diseases and respond quickly.



**Cymbidiums.** Growth should be developing strongly now. The leaves of the new growths are best when they are broad and fairly stiff. The color should be a light green to nearly yellow. Cool your plants the early morning and late evening using a hose or automatic misting system.



**Dendrobiums.** It is almost impossible to overwater dendrobiums this time of year, assuming you have them either mounted or in a coarse, mostly inorganic medium. Lots of heat and light call for liberal applications of water and fertilizer.



**Oncidiums.** Many of the intergeneric crosses between odontoglossums and oncidiums (Odontocidium, Wilsonara, Colmanara, etc.) will be blooming now. Take special care to train the spikes for best floral displays. Keep plants under fairly shady conditions. Watch for snails and slugs.



**Phalaenopsis.** Most, if not all, repotting should be complete by now. Once root growth begins after repotting, you can continue watering with a dilute fertilizer solution every week or so if your phals are in a soilless or coco type mix; the frequency might be every 2 weeks or so if your plants are potted in the more water retentive sphagnum moss. The summer growth phase is the source of energy for next spring's flower spikes. The more leaves the plants grow, the better potential for flower spiking will be realized. Don't let water accumulate in the crowns of plants, or crown rot can occur and quickly kill your plants. If grown outdoors, grow the plants with the pots tilted so rainwater will freely drain from the crown.



**Vandas.** Plants will be growing quickly now and really enjoying the hot humid days. Continue giving vandas what they want, light, water, fertilizer and air. Watch for signs of thrips that will mar the flowers and cause girdling on the roots. Respond promptly to any problems found.



# CULTIVATION



## Orchid Questions & Answers

by Sue Bottom,  
sbottom15@hotmail.com

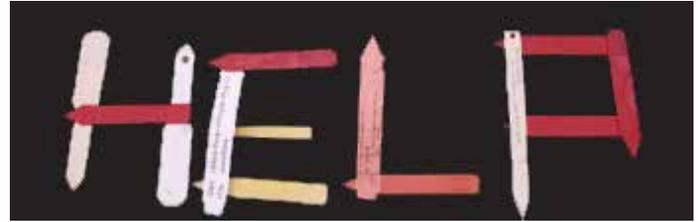
**Q1.** This catasetum keiki has grown out of the top of the pseudobulb and the longest root is about 2 in long. I'm thinking it is time to plant this but how? Some folks have

told me to plant the whole pseudobulb about 1/2 way in the media and let the new roots find their way down to the media. But I'm concerned that way will rot the whole pseudobulb. Should I try to remove the keiki from the old pseudobulb and plant it? Do I discard the old pseudobulb or let it just sit and hope it grows more keikis even though it has no roots?

**A1.** You can do any of those things with the catasetum. One option would be to lay it horizontally halfway buried in a shallow bed of sphagnum, but of course the keiki would then be facing in the wrong direction. Is the pseudobulb hard throughout or is it soft at the base? If it's soft at the base, it is probably starting to decline in which case I would probably cut the pseudobulb about 2 nodes down and plant the keiki with the attached pseudobulb (which is still feeding it) vertically into your potting mix and let it develop into your future plant. Then you could try for more keikis by laying the remaining piece of the pseudobulb horizontally and hoping that more keikis sprout up from the nodes. The underlying question would be what happened to the roots on the big fat pseudobulb? I think I see a slight yellowing at the base of the bulb so I'm guessing it might be declining in which case I'd perform the surgery to give the little guy the best chance for survival.



**Q2.** I got this as a gift and realized a week ago that it was not doing well. It seemed over watered and I have left it in relatively dark area. I just got rid of all the potting material, cut away some rotten roots, and took some pictures. Do you think it can survive?



**A2.** I think that orchid is a goner. It looks like it has crown rot, where the growing heart of the plant is invaded by bacteria and killed. See how the leaves yellowed from the base up and how the central part of the plant is not firm? It's possible a new side shoot could develop, and if you want to try, cut off the flower spikes and see what develops but it's only a 5 or 10% chance and you might just read it its last rites.

**Q3.** Here's a picture of the buds on my cattleya, they are pitiful. They look pimply. What could it be?

**A3.** It's hard to tell from the pic. If the bumps are raised and they look like tiny warts when they open, it's edema, which is caused by watering late in the day when the nights turn cool. It sort of looks like something has been munching on the bud from the pic though, so the usual suspects would be either slugs/snails or thrips. You can lay a piece of apple or potato out on top of the pot and go out with a flashlight before bed and see if you have attracted slugs/snails to the bait, in which case you'll have to start spreading slug/snail killer around. If it's thrips, get ready for a war because they are really tough to get rid of.



# CULTIVATION

## Notes for Beginners – Episode 1

by Jim Brydie, [Ku-Ring-Ai Orchid Society](#)



*Den. Bardo Rose, a kingianum hybrid,*  
photo credit Orchid Society Council of Victoria

When you first get involved in orchids, there are a number of seemingly large hurdles in front of you. First, most of the orchids we grow are epiphytes, meaning their natural habitat is to grow on the outside surface of a tree, as opposed to garden plants which grow in soil. This means that the fundamentals of culture are quite different. Orchids are not particularly difficult to grow, but even highly experienced gardeners initially find these requirements almost the opposite of their current experiences. Orchid overwatering is often a serious result.

Second, there are the names. Orchid growers use the Latin binomial system of naming more strictly than most gardeners are used to, and there are an awful lot of orchid names. Gardeners may already know thousands of plant names but the orchid family is one of the largest in the plant kingdom with 750 to 1000 natural genera, and around 35,000 naturally occurring species. When you add the man-made hybrids, there would be close to 200,000.

Luckily, you don't need to know anything like this number, but you would be surprised at how many different genera and species people do grow. So how does one go about learning all these new names? Well the answer is slowly and surely, bit by bit. For me, I don't really remember plant names until they mean something to me. I need to know what the plant is, and a bit about it, so that I can link the name to knowledge in my mind. Don't try to learn too much at once. Start with the popular types you see at meetings, or the types that really catch your eye, and in particular, make sure you learn something about the ones that you have already acquired and are trying to grow. Don't be disappointed that you don't know much about them. It's much easier to add knowledge to what you do know, than to learn something from scratch, and your knowledge will

expand naturally as you go along. You will add more detail about the ones you know already, and learn about new plants as they interest you and you look them up.

*Buy a Book.* Did you notice there that I said "look them up"? To do that you need the right little book. You don't need a massive Encyclopedia. What you want is a small book that you can carry about with you when you go to meetings and shows. When I started out in orchids, we all used a little paperback called the Golden Guide to Orchids. I wore out 3 copies in my first 5 years and still have a battered copy number 4. The Golden Guide may still be obtainable, but a much better book, and the one I recommend that every new orchid grower buy, is "Botanica's Pocket – Orchids". It is about 7.7 x 6.1 x 1.7 inches. The second reprint was released not long ago and it should be obtainable in bookshops or eBay for \$25 - \$35. It covers 1200 of the most popular orchid species and has pictures of most of them. It will give you a good insight into what the various



*Den. speciosum var. grandiflorum 'Moorland' HCC/OSCOV,*  
photo credit Orchid Society Council of Victoria

types of orchids look like, where they come from, and some cultural information.

*So Let's Start the Ball Rolling.* The orchids I think you should learn about first, are the ones you will see in the greatest numbers at meetings, as this tells us that they have a level of popularity among other growers and are widely grown. There is a high chance they will include the orchids you first acquire as a grower.

The groups I suggest you learn about first are: the Cattleya alliance, Dendrobiums, the Oncidium alliance, Cymbidiums, and to a lesser extent Paphiopedilums, Coelogynes and Phalaenopsis. To give you an idea of the popularity of some of these groups, I counted their numbers benched at one of our Societies September meetings. Out of a total 200 orchids benched, there were 55 Cattleya alliance, 40 Dendrobiums, 27 Oncidium alliance, 15 Paphiopedilums,

**Continued on page 9**



# CULTIVATION

Continued from page 8

10 Coelogynes, and 9 Phalaenopsis. In other words, 156 out of 200. The following provides a little introductory info on the Dendrobiums.

*Dendrobium* (abbreviated *Den.*). This is a huge genus. Its 1200 or more species come from India, Asia, Papua New Guinea (PNG), Australia, and the Pacific Islands, and it has been highly hybridised. There are many different sub groups within the genus but there are two in particular that I recommend to beginners. The first are the Australian native Dendrobiums in the *Dendrobium kingianum/speciosum* group (i.e. section *Dendrocoryne*).

*Den. kingianum* (the pink rock orchid) and *Den. speciosum* (King orchid or rock orchid) and all their hybrids, are hardy evergreen types that grow cool to cold in Sydney. The hybrids are a mixed up lot these days but those with *Den. kingianum* in the background are mostly smallish plants between 4 to 16 inches in height, with crowded, slender pseudobulbs, and many 0.8 to 1.2 in flowers, usually in the pink tones. They are very hardy, easy to grow, and multiply quickly by making more than one new pseudobulb per lead per year. Good *kingianum* hybrids flower their heads off, and a plant filling a 6 in pot could carry 100 to 200 flowers.

*Den. speciosum* is a much bigger plant that can have straight or curved pseudobulbs up to 1.8 in thick and 24 to 35 in tall. It has a longer flower spike (16 – 24 in) and lots of 2 in yellow or white flowers. The hybrid between *kingianum* and *speciosum* is called *Den. x speciokingianum* when it occurs in nature and *Den. Specio-kingianum* when man-made, and it looks like a robust *kingianum*. It usually has soft pink flowers but there are also white forms. There are a myriad of hybrids between these two species and others in the *Dendrocoryne* section, like *Den. falcorostrum*, *Den. tetragonum*, *Den. fleckeri*, etc, that are all easy to grow and flower. They are all different and desirable and many growers specialize in these lovely Australian natives.

The other Dendrobiums I want to mention are the Indian/Asian Dendrobiums that we collectively call softcanes. The softcanes are deciduous orchids, or at least nearly deciduous, as they sometimes hang on to a few leaves during the winter. It is important to note however, that they are not deciduous because of the cold. These orchids evolved in areas that have a very dry winter, a drought that is only broken by the monsoonal rains of the spring season. They drop their leaves to protect themselves from the dry, and as they go almost dormant in the winter, they need to be kept much drier while they are dormant. If you water them heavily through this period you will rot their roots, and instead of flowers in the spring, the buds along the stems may produce baby plantlets as a survival mechanism.

The name softcane refers to the texture of the upright pseudobulbs, which are 15 to 24 in tall, and perhaps 0.6 to 0.8 in thick. They are not soft to the point where they are



*Den. Fortune 'Hawaii Sunset', a softcane dendrobium blooming in spring*

floppy, or such that they squish easily, but they are softish compared to the pseudobulbs of other Dendrobium types. Softcanes flower around October (in Australia, March in the U.S.) with a fantastic display of 2 to 3 in flowers, in groups of 2 or 3 all along the pseudobulb. The hybrids these days can be white, yellow, pink, mauve, or any combination of these colours. They flower off the two year old canes so don't cut off the old canes too early, but once a cane has flowered, it will not flower again, and only serves the same purpose as would the backbulb on a Cymbidium. That is, a reserve source of energy, and as a connecting tissue between other sections of the plant.

*Genus Names and Abbreviations.* As I mentioned above, orchid names can be hard to come to grips with when you first start out, especially the abbreviations. Many abbreviations are simple enough, just being the first three letters of the genus name, but that is only helpful if you knew the genus in the first place. For example, you might guess that "Wils." stood for Wilsonara if you knew what a Wilsonara was. Even if you looked up Wilsonara in your brand new "Brittanicas Pocket Orchids" book, you would be at a loss because a Wilsonara is a manmade hybrid genus (*Cochlioda x Odontoglossum x Oncidium*) and it isn't in the book. Which leads us to a key point, and that is that it is much easier to find information about the naturally occurring genera than the hybrid genera.

There are published lists of all the genera names, including the hybrid genera, but they are BIG lists. There are many versions available in the internet but the one is [orchidsaustralia.com/download\\_genustab.pdf](http://orchidsaustralia.com/download_genustab.pdf). It lists the genera alphabetically, gives the official abbreviation, and for the manmade genera it tells you which natural genera are included in its hybrids. It only uses abbreviations for the genera included in the manmade genera but those are easy enough to search on the same list.

We'll publish the "Some Notes for Beginners" Episode 2 in next month's newsletter.



# CULTIVATION

## The Mystery of Sphagnum Moss

by Sue Bottom, sbottom15@hotmail.com

Orchid growers have a love hate relationship with sphagnum moss. Those that hate it say it caused their plants to rot, and those that love it have probably learned how to properly water plants growing in it. They've learned that you don't water because it's Saturday morning, your normal watering day. You water plants growing in sphagnum when the moss approaches dryness. Grower, know thyself. If you have a heavy hand with watering, sphagnum moss may be problematic for you as you will have to struggle not to water your plants until the moss is nearly dry. If your busy schedule keeps you from watering very often, you may have the opposite problem where the moss can become so dry it becomes crusty and is hard to rehydrate.

Knowing how sphagnum moss grows in nature gives the orchid grower valuable insights. A living layer of moss grows in carpet like communities in very wet areas floating on a thick layer of partly rotted plant material. The carpet consists of vertically oriented leafy stems that grow upward while the lower stems become buried, die and ultimately decompose to form beds of peat moss. *Sphagnum moss* tends to acidify its surroundings having a pH as low as 3, which not many bacteria or fungi can tolerate so decomposition occurs slowly. The sphagnum stems are filled with air spaces and have an impressive water holding potential. The moss grows in a low nutrient environment to which it has adapted by having a high cation exchange capacity largely as a result of its high uronic acid content.



*Which would you rather pot your orchids in, the AAA long fiber New Zealand sphagnum on the left or the so called premium sphagnum on the right?*

There are many qualities of sphagnum moss that make it a good growing medium for epiphytic orchids. The air filled porosity of sphagnum moss (a measure of the void spaces in the potting mix) ranges from 15 to 26% under general conditions, comparable to bark and greater than peat moss. Its high air filled porosity is great for our epiphytic orchids because it allows air to circulate around the roots. Sphagnum can hold up to 20 times its weight

in water, so moisture is retained around the roots for subsequent uptake by the plant. Sphagnum has a high cation exchange capacity so the moss can store positively charged nutrients like ammonium, calcium, magnesium and potassium for later use rather than them being flushed through the pot. The acidic nature of sphagnum results in a root zone environment that is hostile to bacteria and fungi, which helps protect the roots from certain diseases and in fact can help nurse ailing orchids back to health.

**General Guidelines.** Despite all these great qualities, many hobby growers avoid sphagnum because they have had orchids rot when potted in sphagnum. As a serial overwaterer, I have had my difficulties with orchids growing in sphagnum so here are some general rules for its use.

**Quality of Moss.** Most of the commercial phalaenopsis growers have their plants growing in a high quality long fibered sphagnum moss. This high quality moss will last for 2 to 4 years in the pot depending on the quality of your irrigation water as well as how much you water and fertilize. There are many grades of sphagnum moss available to growers. There is the widely available fairly inexpensive sphagnum moss usually from Wisconsin or Canada, sometimes labeled premium grade. This grade of sphagnum is okay if you plan to repot every 6 months, because that's about how long it will last in the pot before turning into a sodden mess that will suffocate the roots on your plant. Only buy the AAA grade New Zealand sphagnum moss or the 5 star Chilean sphagnum moss. If the label does not specifically say AAA New Zealand or 5 star Chilean moss, do not buy it. You don't need to spend the extra money buying the highest quality AAAAA grade moss unless you're planning to join the Fūikiran Society. If the high quality moss is too expensive for your budget, use something other than sphagnum to pot your orchids. If you can't find the high quality sphagnum moss in your local stores, search online. It is available from RePotMe.com and CalWestTropical.com.

**Pack Moss Firmly.** Sphagnum moss is much easier to work with when it's wet, so moisten it prior to use. Some people like to pack the moss into the pot very loosely believing this allows the moss to dry more rapidly. It may seem somewhat counterintuitive, but loose sphagnum moss actually holds more moisture than more tightly packed moss. Think of the moss as a sponge, when you squeeze a sponge it retains less water. On the flip side, if you pack the sphagnum very tightly into the pot, you can potentially compact it so much that you reduce its air holding capacity. I tend to take the middle ground and pack the sphagnum firmly but not densely around the plant, tightly enough that the plant holds itself upright in the pot.

**Smaller and Taller Pots Seem to Work Better.** Smaller pots seem to work better when using sphagnum. This may

**Continued on page 11**



# CULTIVATION

## Continued from page 10

simply be a case of a smaller pot having a higher surface area to volume ratio so the moss tends to dry out more quickly. With pots larger than 4 inches, consider blending the sphagnum with porous material like sponge rock or leaving an air space below the sphagnum via the collaring technique. Pot shape is important too. Even though it seems counterintuitive, taller pots of a given size dry faster than shallow pots. With open baskets and rafts, the moss can be packed more loosely because it is open to the atmosphere on all sides.

**Salt Retention.** Sphagnum moss will retain the salts present in your water supply as well as those introduced by your fertilizer. If you use a pure water like rainwater, this may be less of a problem, but many growers may have to compensate for the tendency to accumulate salts by flushing their pots regularly and using dilute fertilizer solutions or fertilizing half as often.

**Sporotrichosis, aka the Rose Thorn Disease.** Sporotrichosis is an infection caused by a fungus called *Sporothrix schenckii* that lives throughout the world in soil, plants, and decaying vegetation. Skin infection is the most common form of infection, although pulmonary infection can occur if a person inhales the microscopic, airborne fungal spores. Most cases of sporotrichosis are sporadic and occur through small cuts or punctures from thorns, barbs, etc. To avoid the potential for a problem, cautious individuals or those with a compromised immune system can wear gloves and/or disinfect the moss with one of the chemicals containing quaternary ammonium compounds like Physan or pool algicide.

**When and How To Use Sphagnum.** Sphagnum may not work for all your potting needs, but there are certain situations in which sphagnum moss works better than any of the alternatives. Think of sphagnum as one more arrow in your quiver.



*This Calanthe Baron Schröder has been in the same bulb 8 inch pot in AAA sphagnum for 3 years. I almost repotted it this year but the moss is still in good shape and the plant is growing so vigorously it is deforming the plastic pot. It had about 15 flower spikes last year. Wonder how many blooms I'll have on it this year?*

**Winter Dormant Orchids.** Winter dormant orchids like catasetums, habenarias and calanthes like a dry winter rest during which the top growth may die back and wither away. But when the bulbs wake up in the spring, they grow with wild abandon because they have to compress a year's worth of growing into their 7 or 8 month growing season. They require copious amounts of water and fertilizer to match their growth spurt. What could be more perfect for these vigorous summer growers than sphagnum, that stays evenly moist and retains nutrients. If you're growing outdoors where they receive lots of uncontrolled rainfall, keep the pots on the smallish size and top dress with timed release fertilizer, and then watch them grow. I used to repot my catasetums every year, but one day I asked myself why I felt compelled to traumatize the plants with the annual repotting marathon when the moss still had plenty of life left in it; so I didn't repot this year and now the catasetums are blooming earlier and more freely, with roots still happy in the AAA sphagnum.

**Water Loving Orchids.** As you might suspect, any of the moisture loving genera like bulbophyllums, masdevalias, jewel orchids and dendrochilums are good candidates for growing in sphagnum moss. Pot size and shape are critical, choose smallish shallow pots. Even with bulb pans you might think of adding a layer of Styrofoam peanuts at the bottom. You can also use plastic or clay saucers if you drill holes in them.



*This Dendrochilum cobbianum had a multitude of flower spikes. The pot it is growing in is hidden by the decorative pot in the image to the left. But in the image to the right you can see it is growing happily potted in sphagnum moss in an uber shallow saucer.*

**Cool Growers in Warm Climates.** Sometimes you are determined to grow a type of orchid that is not well suited to your climate. For those in warm climates, potting the cool growers in sphagnum in a clay pot is an old grower's trick to try to lower temperatures a few degrees, particularly if they are grown in a shadier, cooler location. You can double down by dropping the clay pot into a second larger clay pot with a little sphagnum in between.

**Sphagnum to the Rescue.** Small seedlings, backbulbs and weak or sickly plants all need tender loving care. Sphagnum has antiseptic properties that help lower the incidence of rot as well as good water retention so delicate roots can develop, both great qualities when trying to

Continued on page 12



# CULTIVATION

## Continued from page 11

nurse a sick plant back to health. You can try the sphag in a bag technique, where you put a little wet sphagnum at the bottom of a tall plastic bag (like the newspaper comes in), put two holes in the bottom of the bag and one at the top, drop the sick plant in and hang it in a shady location. If you're lucky you'll have roots and maybe a new growth within 6 months or so. Alternatively, just put the backbulbs or sick plant in a small clay pot packed with sphagnum and wait for the plant to grow new roots and sprout new growth from dormant eyes.



**My experiment with growing stanhopeas in coco fiber didn't end well. Terry made a Jill Godfrey style raft out of hardware cloth to which I secured the remaining pieces of Stan. grandiflora and draped some sphagnum loosely around the roots in the that hope the plant will revive.**



**These plants from Alan Koch of Gold Country Orchids show how well the collaring technique works. The plant roots are wrapped with a thin band of sphagnum moss about half the depth of the pot and then placed in the pot with an open void space at the bottom into which the roots happily grow.**

**Top Dressing.** You can use sphagnum as top dressing over your mix of choice. It is a simple way to protect new root growth when the roots are above the potting mix. It works particularly well on bifoliate cattleyas that generally only produce a flush of roots once a year so if they are damaged, the plant will suffer a setback. If you grow paphiopedilums in a low humidity environment, you might find the roots dry up before they can grow into the potting mix. A thin layer of sphagnum over your potting mix can supply the desired humidity.



**Sure wish I had followed Keith Davis' advice to cover newly emerging roots with sphagnum moss before the roots got damaged.**



**The moss helps keep pests away, stimulates the roots to grow faster into the mix and keeps the green tips long and hydrated.**

**Collaring.** For small or seedling orchids, use a small clay pot and wrap sphagnum around the roots about half the depth of the pot and insert the plug into the pot so the roots will grow into the void space between the sphagnum and clay pot.

**Sphagnum Blends.** If you find you have trouble with sphagnum or need to put an orchid in a pot larger than 4 inches or basket larger than 6 inches, you may consider creating a custom blend attuned to your growing situation. For outdoor growers, adding sponge rok, charcoal or other inert material to the sphagnum will help with the tendency to stay overly wet. If you like growing in bark, adding about 20% chopped sphagnum is reported to be an improved potting mix for growing Phalaenopsis and Phragmipediums. **Repotting Out of Sphagnum.** If you decide sphagnum is not for you but you happen to buy an orchid growing in sphagnum, you will have to transition to a new mix. The roots growing in sphagnum have become acclimated to the moist acidic growing conditions. If you repot directly into a completely different type mix such as hydroton, the plant will have to grow a new set of roots acclimated to this different environment. If you find yourself in this predicament, consider potting into a ProMix HP mix or a transitional custom blended mix. A 50% ProMix HP and 50% coarse sponge rok mix works well for Phalaenopsis, although you may have to top dress with a thin layer of sphagnum to prevent the mix from washing out of the pot. For your other orchids, consider blending some sphagnum moss into your mix of choice for the first time you're repotting out of sphagnum.

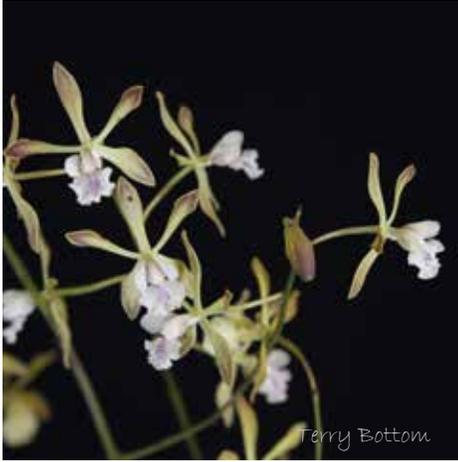


**Culture king Andy Phillips uses green tree moss in baskets and on some mounts. We'll be experimenting with it, report to follow! This Agcm. calceolus from Andy's Orchids is a monster bloomer that loves growing in green tree moss and being watered every other day.**

For wateraholics, there is another moss of potential interest, green tree moss, sometimes called shag or sphagnum mountain moss. I discovered this moss when I bought an angraceum from Andy's Orchids last fall that was in a small basket filled with this new (to me) moss. At the Redland Orchid Festival, Andy's booth was filled with plants potted in or mounted with this moss. Green tree moss is very airy and does not retain moisture like sphagnum so it can be watered frequently without becoming sopping wet. We're trying it out now, it may be a great alternative for those that simply hate sphagnum moss.



# SHOW TABLE



**Grower Dick Roth**  
*Enc. belizensis*



**Grower Courtney Hackney**  
*Epi. schlechterianum*



**Grower Yvonne & Bob Schimmel**  
*Colm. Catantae 'Kilauea Karma'*  
AM/AOS



**Grower Sue Bottom**  
*Lc. Elegans*



**Grower Sue Bottom**  
*Angcm. calceolus*



**Grower Yvonne & Bob Schimmel**  
*Mtssa. Estrelita 'Sweet Senorita'*



**Grower Sue Bottom**  
*Den. bracteosum*



# SHOW TABLE



**Grower Courtney Hackney**  
**Blc. Serengeti Sands 'Cherry Glow'**



**Grower Sue Bottom**  
**Ddc. filiforme 'Willow Pond'**



**Grower Linda Stewart**  
**Neofinetia falcata**



**Grower Suzanne Susko**  
**Bc. Maikai 'Mayumi' HCC/AOS**



**Grower Courtney Hackney**  
**Paph. Caroline Hands**



**Grower Omar Gonzalez**  
**C. forbesii 'Tahoe Rose'**

