

TRIP TO MARLOW'S ORCHIDS



Zygocloax hybrid from Fall Show, owned by Jim Marlow, photo & editing by Jeff Stuart

Central New York is finally in the firm grips of Autumn, and all one need do is look outside to see the brilliant colors of the season gracing the landscape. Winter's chill winds haven't quite reached us yet, although some areas have already seen some snow...

On Sunday, November 3RD, before winter weather starts to get the best of Central NY, CNYOS will take its third annual road trip to visit our friend Jim Marlow of Marlow's Orchids, in Scottsdale NY. Jim has a variety of orchids in his greenhouse, making for a nice selection of both hybrids & species. For the last two years he has been a successful vendor at our Fall show.

The plan for Sunday is to meet at St. Augustine's Church at 10:00^{AM} to form car-pools for the drive to Jim's place. Once there, we will have a brief meeting—after all, I'm sure you won't be in the mood to rush right to the greenhouse—where we will discuss future meeting plans and activities. Jim will have a lunch waiting for us—and based upon past experience it will be a good one! If you're planning on joining the club for the trip out, please let Judi Witkin know by Wednesday, October 30TH, so she can get a head-count to Jim (422-0869, MRaush@aol.com).

This is a Special Expanded Show Edition! After one of our most successful shows, it seemed appropriate to take a few extra pages to hit the highlights. See pages 7-10 for a listing of member awards and a few photos. The club was well-received by the public, and there were lots of compliments. CNYOS owes a great deal of thanks to all of you who generously gave of your time & talents to make the show a success.

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OCTOBER MEETING: BOB WELLENSTEIN OF ANTEC ORCHIDS

For our October meeting, CNYOS was pleased to welcome Bob Wellenstein of AnTec Orchids in Candor NY. Bob & Lynn Wellenstein specialize in slipper orchids, growing and selling some of the best available nationwide. His slide presentation, "New Directions in Slipper Breeding," featured mouth-watering pictures of Paph species and some of the newer hybrids, especially those that involve *Parvisepalum* (*Paphiopedilum armeniacum*, *micranthum*, *delenatii*, *emersonii*, and *malipoense*) and *Corypetalum* (*Paphiopedilum rothschildianum*, *philippinense*, etc.). Before and after his presentation, Bob had a nice selection of Paphs and Phrags for sale, both seedlings and blooming size. Many of the new hybrids AnTec is releasing fall in the category of novelty—combinations of slipper species and hybrids that would not initially come to mind. Often these types of hybrids can be speculative and the results can be unusual. But Bob & Lynn seem to have a good knack for what combinations work. Consider the photo below (from the AnTec web site (www.ladyslipper.com)), which is a combination of *Paph. nivium* (a *Brachipetalum*) and *Paph. Raisin Pie*, a *Maudiae* type featuring 50% *Paph. sukhakulii*. The combination gives spots from *sukhakulii*, round form and subtle coloration from *nivium*, and (probably) ease of flowering from its *Maudiae* background—all-in-all a winning combination! Hmmm... I wonder what would happen if they combined that with a nice regal *Paph. rothschildianum*???



A great novelty hybrid: *Paph. (nivium 'Green Eye II' x Raisin Pie 'Candor' AM/AOS)*

1. Treasurer's report: \$4100, but there are some bills from the show outstanding.
2. Thanks to Barbara and Val for the fine refreshments.
3. Elinor Burton has applications to subscribe to Orchid Digest.
4. Thanks to everyone who worked so hard to make our Show a success. We received positive reactions from the exhibitors/vendors about our Show. We voted to send a contribution to the Regional Judging Center. There were 5 AOS awards given at the Show, the Orchid Digest trophy went to GROS, the AOS trophy to Bloomfield Orchids.
5. Supplies: Only a small portion of the order from OFE arrived—the rest is on back order. Please let Debbie and Dianne know what kinds of supplies you use / need so that they can be obtained.
6. Jeff Snyder from GROS informed us that his club's annual auction is Sunday 10/27/02, from 1-4 p.m. There is a link on our web site to the GROS website.
7. Holiday Shoppes: the plants have been ordered; postcards with a discounted price coupon were distributed.
8. Future meetings: 11/3/02 at Jim Marlow's, he has a new shipment from Peru for those not space impaired. The annual Holiday Party will be on 12/8/02
9. Nominating Committee: Ken Renno will chair and seek out volunteers for the open offices and post these names in the newsletter for our vote in December.

Respectfully Submitted,
Barbara Weller, CNYOS Secretary



November 3 **Trip to Jim Marlow Orchids in Scottsdale NY**

November 9 -11 **CNYOS participates in the annual Holiday Shoppes:** Fri. 11/8/02 10^{AM} to 8^{PM}, Sat 11/9/02 10^{AM} to 5^{PM} and Sun 11/10/02 10^{AM} to 4^{PM}, Price Chopper Horticulture Bldg, NYS fairgrounds. Free parking. Admission \$6 at the door. Reduced advanced sale tickets available at Peter's Grocery in Syracuse. Contact Deb Coyle or Dianne Bordoni for more info.

December 8 **Annual Holiday Party!** To be held at the home of CNYOS President Deb Coyle at 5:00^{PM}. Cost will be \$10-\$15, depending on caterer. BYOB.

ANYONE FOR JUDGING?

Iris Cohen might be going to the orchid judging in Elmsford on November 16TH. Although it is a long trip, it can be done in one day and the judging should be very educational. If anyone would like to carpool, let Iris know: e-mail IrisCohen@aol.com or call (315) 461-9226.

STOS NEWS: NEWS FROM THE SOUTHERN TIER ORCHID SOCIETY

Meeting Date: November 17. Tentative Program on Paphiopedilums from The Orchid Digest.

Monthly meetings begin at 2:00^{PM} in the Vestal Public Library. For directions, etc. call STOS president Kenneth Lattimore at 570-553-2753 or e-mail him at <klatt@epix.net>.

GROS NEWS: NEWS FROM THE GENESEE REGION ORCHID SOCIETY

There will be no meeting during the month of November due to the Auction held on October 27TH.

Taken with permission from *The Orchid Collection*, Newsletter of the Genesee Region Orchid Society, Vol. 25, No. 2, October 2002, Phil Matt, Newsletter Editor (716) 288-7025.

DIRECTIONS TO JIM MARLOW'S

Take NY State Thruway west to the Henrietta exit (46). Take 390 North to the Jefferson Road exit. Turn left onto Jefferson and proceed approximately 2 miles past Marketplace Mall and then another 1/2 mile past RIT (on left). After



going over the Genesee River, turn left on Scottsville Road and proceed approximately 2 miles (on left). Jim's house is next to Doubling Hills Inn at 2272 Scottsville Road.

Photo References: Front cover: *Zygo. Imagination* x *Pabsia jugosa*, owned by Jim Marlow, photographed & digitally manipulated by Jeff Stuart. *Paph. (niveum 'Green Eye II' x Raisin Pie 'Candor' AM/AOS)*, and those in the feature article, photographed by Bob Wellenstein, <http://www.ladyslipper.com>. Show related photos on pages 4, 8-10, by Jeff Stuart.

Cypripedium Alliance

<i>Paph. henryanum</i>	Ditz
<i>Paph. Wössner Perle (niveum x micranthum)</i>	Witkin
<i>Paph. leucochilum</i>	"

Cattleya Alliance

<i>Epi. ciliare</i>	Witkin
<i>Lc. Jungle Elf x C. Gene May</i>	Bordoni

Vandaceous

<i>Sarcoglyphis comberi</i>	Witkin
<i>Haraëlla retrocalla</i>	Coleman
<i>Dyakia hendersoniana (sic)</i>	Bordoni

Oncidium Alliance

<i>Odna. Santos x Milt. Ruth Senn</i>	Coleman
<i>Milt. Gerald Michael Lawless (Doctor Kay Gow x Pearl Ono)</i>	Ditz
<i>Rhynchostele rossii</i>	Stuart

Dendrobium

<i>Den. Chao Phaya Blue (sic) (May Teo x Kultana)</i>	Kot
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Pleurothallid Alliance

<i>Masd. Flashpoint (sprucei x ignea)</i>	Coleman
<i>Masd. David Moreton (? x ?)*</i>	"
<i>Masd. floribunda</i>	"

Miscellaneous

<i>Angcm. eburneum</i>	Bordoni
<i>Angcm. distichum (sic)</i>	Witkin
<i>Z. Perelandra (sic) x Artur Elle</i>	Weller

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Iris Cohen

**THE CNYOS DISPLAY AT THE 2002 SHOW.**

BEAUTIFULLY DESIGNED AND SET UP BY JUDI WITKIN, INSPIRED BY HER BACK PATIO! AS FAR AS NUMBER OF PLANTS AND SHEER DIVERSITY, THE CLUB'S DISPLAY WAS DEFINITELY A SHOW FOCAL POINT. AND TWO AOS AWARDS AND LOTS OF RIBBONS DIDN'T HURT EITHER!

CLUB REMINDERS

Orchid-Growing Supplies are now available, including fir bark, sphagnum, sponge rock, charcoal, and 40W fluorescent tubes. Call Dianne Bordoni for details on pricing and availability (446-3836).

The **CNYOS Club Library** is now located at St. Augustine's church. Make arrangements with Val Introne (682-8595) if you want to borrow an item from the Library.

DON'T FORGET TO BRING YOUR BLOOMING ORCHIDS FOR THE MONTHLY SHOW TABLE!!!



Phalaenopsis bellina (violetacea), photograph by Vagisha Sharma, with digital enhancement by J. Stuart.

REFRESHMENT SCHEDULE

January 12	Judi Witkin & Gary Stensland
February 2	Deb Coyle & Dianne Bordoni
March 2	<i>Need Volunteers!</i>
April 6	<i>Need Volunteers!</i>
May 4	<i>Need Volunteers!</i>

We still need volunteers for the months indicated above. Please consider signing up!

CNYOS IS NOW ON-LINE!

CNYOS is on-line at **www.paphiopedilum.net**. The site is regularly updated and will be changed as the club's two crack web-masters (Jeff Stuart & Charles Ufford) have time to do so, so check back frequently!



From the AOS Website: On Tuesday, November 26 at 8:00^{PM} ET on PBS, NOVA presents, **Orchid Hunter**. For nine months in 2000, Tom Hart Dyke was a captive of guerrillas who seized him while he was collecting wild orchids in the Colombian rain forest. Now Hart Dyke is at it again in the most orchid-rich and politically unstable part of Papua New Guinea. NOVA investigates an all-consuming passion that for some people is more precious than life itself, on **Orchid Hunter**, airing Tuesday, November 26 at 8pm ET on PBS (check local listings). This program is sure to be of interest to the orchid-growing community, don't miss it!

CYCHNOCHES CHLOROCHILON & CATASETUM PILEATUM

At our September show, CNYOS Member Rick Braue entered a fine example of *Cycnoches chlorochilon*. And then several members purchased *Cycnoches cooperi* pseudobulbs from Jim Marlow. As this is not a commonly grown genus, it seemed appropriate to feature it, and its cousin genus *Catasetum*, in this month's Spot Light.

Although many members in these genera have already flowered by Fall, this is perhaps the best time of year to focus on them, as many go dormant after flowering until new growth appears in Spring. So those of you who have plants in either of these wonderful genera, make sure you water only sparingly until you see new roots emerging in the Spring! The genus *Cycnoches* is allied to *Catasetum* and like them produces flowers that are male or female. The wonderfully scented "Green Swan Orchid" has long been a favorite among orchid growers. This nickname can refer to any of several species and there is often confusion between *Cyc. chlorochilon* and *warscewiczii*. The former can be distinguished by smaller floral segments and a thin, graceful column. Grow *Cycnoches* as you would *Catasetum*; warm to intermediate temperatures, bright filtered light, and plenty of water and fertilizer during active growth and a pronounced drying out after the leaves drop.



Catasetum pileatum is by most accounts the most desirable species in the genus. The large, showy flowers play prominently in the family trees of many *Catasetum* hybrids contributing their full-shaped lip to the progeny. The hair-like appendage shared by all *Catasetum* species is a trigger the literally smacks the pollinea onto the back of the unsuspecting insect.

Triggering the hair can project the pollen sack as far as 3 feet! *Catasetums* require plenty of food and water during their active growth period which begins in the spring.

The idea is to make up as large a growth as possible before flowering. In doing so maximum flower production is encouraged and the plant has ample reserves to overwinter with. Many growers of *Catasetums* actually unpot the plants each winter and keep them in a cool dry place allowing the pseudobulbs to go dormant. An occasional misting prevents excessive shriveling.

When growth begins the following spring, the bulbs are divided and/or potted up.



CNYOS fared very well at this year's show! Not only were there a great number of ribbons, but CNYOS Members brought in three out of the five national AOS awards given at the show! Congratulations to Donna Coleman, Charles Ufford, and Gary Stensland! More details—including photos—on the following pages. Note: multiple identical entries by individual members represent awards won by a single plant in multiple categories.

David Churchill

B. nodosa First, Best in Cattleya Alliance
Paph. John Lamb Second
Paph. concolor Second
Phrag. Noirmont Second
Dtps. Cloud Baler Second

Judi Witkin

Aërgs. luteoalba var. *rhodosticta* Second

Dolores Capella

Lc. Classy Pink First, Margery Ummer Memorial Award
B. David Sander Third
Burr. Nelly Isler 'Swiss Beauty' Third
Brs. longissima Third
Brs. ? Third

Carolyn Pace

Slc. Red Jewel Second
Slc. Red Jewel Third
Onc. varicosum Second

Central NY Orchid Society Exhibit Second

Charles Ufford

Exhibit First
Phal. braceana First Place, CHM/AOS 82 pts
Phal. lindenii Third Place
Phal. braceana First Place
Trpla. suavis Second
Sngl. longifolia Second
 Photo Second
 Photo Third

Gary Stensland

Encyclia livida Second Place
Encyclia livida Third Place
January Day Dream First Place, Best of Art, AOS Artistic Exhibit Certificate

Donna Coleman

Bl. Yellow Bird First
Phal. Arnie Linsman Second
Onc. crista-galli First
Onc. crista-galli First, Best in Onc. Alliance, James Rice Memorial Award, CCE/AOS-90
Masd. Ken Dole Second

Jeff Stuart

Phal. bellina Second
Rhyncostele aptera First
 Photo Second

Monica Kot

Ctna. Why Not Third

Iris Cohen

Eplc. Tinker Toy 'Sprite' Second

Cheryl Lloyd

Ngl. purpurea Third
Ngl. purpurea Second
Paph. primulinum var. *purpurascens* Third

Dave Ditz

Exhibit First
Orpha. radicans Second
Orpha. radicans Second

Dianne Bordoni

Eplc. Don Herman Second
Phal. Batik Third

Rick Braue

Cyc. chlorochilon Second

Diana Whiting

Photo First

THE QUEEN OF THE SHOW! *ONCIDIUM CRISTA-GALLI* 'KARAT' CCE/AOS (90 POINTS), GROWN BY CNYOS MEMBER DONNA COLEMAN.



OTHER AWARDS: FIRST PLACE RIBBON, BEST OF ONCIDIUM ALLIANCE, AND JAMES RICE MEMORIAL AWARD FOR BEST SPECIES

This year marked one of our best years ever in regards to national AOS awards, with five awards given out, three to CNYOS Members! The most awarded orchid at the show was a delightful *Onc. crista-galli* expertly grown by Donna Coleman. Among its array of awards were a First Place ribbon, Best in Oncidium Alliance, the James Rice Memorial Award, and a 90 point CCE/AOS. If you're not familiar with this award, don't worry because it's relatively new; CCE stands for Cultural Certificate of Excellence, and it is the highest recognition a grower can receive for excellence in orchid growing. When asked how she managed to achieve this feat, Donna replied that she grows her *Onc. crista-galli* in her bathroom, waters it with tap water, and uses fish fertilizer!

Member and Phalaenopsis grower Charles Ufford had his unique deciduous *Phalaenopsis braceana* awarded with an 82 point CHM/AOS. A CHM is a Certificate of Horticultural Merit, a recognition of the horticultural desirability for a species.

And finally, our own Gary Stensland received yet another national AOS artistic award—the AOS Artistic Exhibit Certificate for his remarkable “January Day Dream,” Gary’s vision of a tropical conservatory, filled with not only orchids, but also bromeliads, a tree dripping with epiphytic orchids and tillandsias, and Koi pond! To be more specific, Gary’s conservatory is indeed real, but only ~12” tall! It’s a remarkably crafted miniature delight, with detail right down to mushrooms in the detritus and faded flowers on the orchids!

The remainder of the AOS awards went to two of our vendors, Jim Marlow and Joe Kunisch. Joe’s *Paph. Macabre* ‘Halloween’ AM/AOS was moved up from 81 to 85 points, and represented a spectacular example of a Maudiae-type Paphiopedilum. Jim Marlow’s unusual *Stanhopea napoensis* was awarded the show’s second CHM/AOS (80 points). Like most Stanhopeas, *Stan. napoensis* is a uniquely beautiful orchid with flowers both strange and wonderful!



***PHOTOS OF CNYOS FALL SHOW AOS
AWARDED PLANTS***



PAPHIOPEDILUM MACABRE
‘HALLOWEEN’ AM/AOS
(85 POINTS)

**JOE KUNISCH, BLOOMFIELD
ORCHIDS**

**JOE’S WELL-DONE DISPLAY ALSO
TOOK THE AOS SHOW TROPHY**

PHALAENOPSIS BRACEANA
‘BRONZE STAR’
CHM/AOS
(82 POINTS)

**CHARLES UFFORD
CNYOS**





STANHOPEA NAPOENSIS

'SCOTTSVILLE'

CHM/AOS

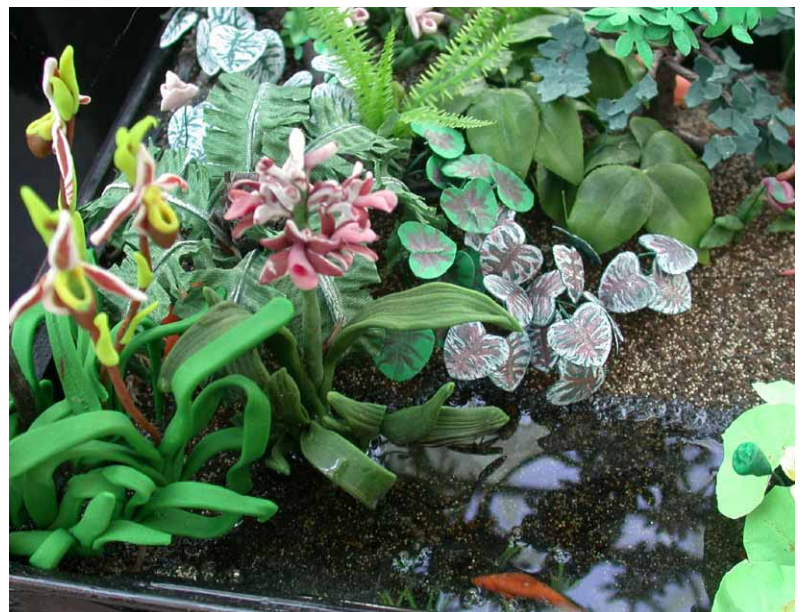
(80 POINTS)

JIM MARLOW

MARLOW ORCHIDS

CNYOS

VIEWS FROM JANUARY DAY DREAM BY GARY STENSLAND, SPECIAL AOS ARTISTIC AWARD.
Right: A diminutive *Laelia anceps* alba (?) clinging to tree branches. Below left: *Phrag. longifolium* and *Phaius tankervilleae* in full bloom at 2" tall! Below Right: A Koi swims in the shade of both orchids and lotus leaves.



BUYING & GROWING YOUR FIRST PAPH: PART 2

Editor's note: Here is the second part of our feature article by last month's speaker, Bob Wellenstein.

Bob & Lynn Wellenstein

As we suggested earlier, if possible for your very first plant, buy it in person. This will give you a chance to examine the plant carefully, which can be a learning process in itself. Later on, when you are more experienced with Paphs, we will suggest that you devise your own potting medium, use pots that suit your conditions, and always repot the plants you buy immediately into it. But for your first Paph, we want to maximize your possibilities of success and get one that is in an appropriate pot and medium to start with.

First, check the relationship of the plant size (referred to as the 'top growth') to the pot size. If it is a small plant in a very large pot, be careful as this could create conditions, depending on the mix, where the roots stay wet for extended periods of time, and these conditions will not allow the roots, or the plant



THE DREADED MEALYBUG.



THIS MOTTLED LEAF PAPH. IS A GOOD CANDIDATE FOR A FIRST PAPH. IT PASSES THE "WIGGLE TEST" TO SHOW IT IS FIRMLY ROOTED, HAS CLEAN LEAVES WITH GOOD COLOR, IS POTTED IN A NICE OPEN AND FRESH MIX, AND IS IN BUD. NOTE THAT THE ANTHOCYANIN (RED) PIGMENT AT THE BASE OF THE PLANT IS NATURAL COLORATION, NOT RELATED TO THE SOFT BROWN ROT YOU NEED TO LOOK OUT FOR.

itself, to survive for long. Paph roots require both air and water, and a 'mucky' or soil-like mix will surely preclude much air getting to the roots, which will eventually cause the death of the roots and the plant. A dense and wet mix is also very attractive to slugs, snails and fungus gnats, which is another reason to avoid a plant potted in such a mix. It may be possible that the plants' grower could maintain conditions where a plant potted as such would dry out quickly, but it is highly unlikely you will be able to duplicate this in your home. The appropriate pot size to maximize your success will probably appear comparatively small for the plant considering the size of the leaves. This is a good thing, as it indicates that probably the plant's roots will dry out in 3-4 days before rewatering, and the plant's roots will thus not stay overly wet.

Next, take a look at the medium itself. Again, when you are very experienced with growing Paphs, you probably could adjust your conditions and watering to grow them in a wide variety of mediums. But to start with, we are looking for a very open and free draining medium to minimize the number one cause of dead Paphs, and that is root rot due to lack of air at the roots, and staying moist too long at a time. It helps to remember that no Paphs are found growing in the wild in swamps, and are rather considered humus epiphytes, i.e. plants that grow either on rocks, or in organic detritus in tree crotches, or on ground litter of dead and decaying leaves, twigs, etc. What you are looking for is a 'particulate' sort of medium, containing small chips of material such as bark, coconut husk chips, sponge rock, charcoal, lava rock, aliflor or other of the lighter weight stone based aggregates. What you want to avoid is a medium that has a fine-grained appearance because it has decayed to mush, or one that looks like the potting soil often used for other houseplants. These are probably based on peat or coir (pronounced "kwarr", and made from ground up coconut husk). Even if the plant started out with good roots, you will likely have a difficult time maintaining them under your conditions in such a mix. Other

plants to avoid are those that are growing in some kind of moss, as this medium is definitely not suitable for most first time growers, and it's very possible that such plants will not have an abundance of roots. Additionally, moss is difficult to rewet once it completely dries out, and while you may think that you have watered the plant, you may have actually only watered the top of the moss, and this means that that roots will stay too dry.

Now that you've found a Paph that meets the above criteria of reasonable pot size and an appearance of a healthy plant potted in an open mix, let's take a closer look. First, with permission of the store owner, lift the plant up by the pot. While holding the pot in one hand, gently and very slightly wiggle the plant at the base with your thumb and index finger.

If it seems well anchored in the pot, then there's a good chance it has the most essential requirement, a good root system. If it seems poorly anchored in the pot, put it back on the bench in the same place it came from. This plant may not have good roots, or at best, may only have roots that circle the top of the pot because the mix is too dense for the roots to penetrate any further and still get the required air. This is not a plant you want to start out with. Next carefully look at the leaves, especially including the undersides, and peer down into the leaf axils as best you can. You are looking for evidence of scale and mealybug insect presence. We have included photos of what some of these insects look like for reference. You also want to look for any areas of very fine white cottony masses, or a black sooty material that wipes from the surface of the leaves (sooty mold). These can also indicate the presence of these insects. If the plant passes the bug inspection, next look for any signs of soft brown areas anywhere on the leaves, especially at the base of the plant. This would indicate the presence of one of two types of bacterial rot that are very devastating to Paphs once they get started and



THE EVEN MORE DREADFUL ARMORED SCALE. ONCE INFESTED, THESE CAN BE DIFFICULT TO ERADICATE.



THIS PAPH HAS A NEW GROWTH IN BUD AND AN OLDER FLOWERED GROWTH. THE LOWER YELLOWING LEAF ON THE OLDER GROWTH IS A NATURAL PROCESS OF SENESCENCE AND DOES NOT INDICATE AN UNHEALTHY PLANT.

are difficult to eradicate, so do not consider a plant that you suspect has them.

Sometimes, the brown rot will be nearly invisible at the base of the plant, and you may have to gently brush away some of the potting mix at the base of the plant with your fingers to find the area from which the roots begin. If this area is free of brown rot, or dark spots, or a 'transparent' aspect of the lowest part of the leaf (which is another form of bacterial rot), then this is a plant you may consider. Also, look at both the top and undersides of the leaves for any unusual patterning that seems to occur only sporadically on the plant. Regular, even mottling of the leaves is normal, but isolated, dark patterns, especially very small spots that are pitted or light brown and appear in clusters, indicate that this is a plant that should be avoided as it probably has a fungus infection.

A common question has to do with whether it is advisable to purchase a plant that has a yellow leaf. If the plant has three or four other healthy looking leaves making up the growth, it is perfectly normal for it to shed a yellowing, lower leaf, so generally you do not need to be concerned about this. This is especially apt to be the case in the late fall and early winter, and when a plant is pushing up a new inflorescence. The old leaf has done its job, and is yellowing prior to being discarded by the plant because the plant is cannibalizing nutrients from it. If a majority of the leaves on the plant are yellowing, then you may have cause for concern. This particular plant may be in the process of losing all its roots, or may be suffering from a nutrient deficiency, or may have some other problem you will have to deal with if you buy it.

If the plant you are considering is in bud, but the bud is just barely showing, check to see that the bud is plump and actually alive and growing. Occasionally, the leaf axils that contain the bud may collect water during irrigation that allows bacteria to grow, which can kill the developing bud. If the bud is deep in

the center of the plant, flat and very dark, it has probably died and is not going to develop any further, and the plant will have to mature a new growth before it will again produce a bud and flower.

GROWING

Watering

Watering is probably the single biggest factor that will dictate your success with a Paph. Generally, we don't like to use common catchy statements and phrases in culture advice, probably because so many of them are wrong. But, "you can never water a Paph. too much, but you can water it too often" is one of the better ones we've heard. Simply stated, when you water, really water that plant. You want water quickly running out the bottom of the pot and you want several pot volumes of water to run through the pot each time you water it. This not only makes sure that you properly rehydrate the medium each time you water, but that you do not have any excess build up of salts in the pot. However, overwatering in the sense of watering too frequently, and not letting the plant's medium dry out somewhat between waterings, is probably the number one reason Paphs die an early death. There has been, and unfortunately still is, a large misconception that even allowing the potting medium to approach drying will kill a Paph's roots. This is probably based on the use of poor quality water, which would form salt deposits on the roots of plants if the pot were allowed to dry out. This has led to a second misconception that the plants should be grown wet all the time, which in turn has probably killed far more plants due to root loss than a little drying would ever have done. Not everyone has such bad water.

If you do have extremely hard water (indicated by residue in tea or coffee pots, or if your hot water heater builds up scale interiorly), you can minimize salt build up by using very little fertilizer and water copiously when you do as just explained. It also should be noted that most of the Paphs we've listed as beginners plants here are not among the more sensitive in the genus to water quality---that was one of the key issues we used in selecting them. If it turns out that you have sufficiently bad water to cause problems for even these plants, there are other ways of dealing with this problem explained in the water quality and mineral nutrition chapters. The signs you will look for are obvious, whitish mineral deposits on the surface of the medium, or Paphs with burned as opposed to rotted roots, or Paphs that have roots that are not rotted but do not have active growing tips. The plants will also be slow to form new growths and 'sulky'. If you are unsure of your water quality, take a shallow bowl, fill it with your tap water, and allow it to evaporate over several days. Look at the residue in the bowl; if it is easily visible, then you very likely have 'hard' water, or water that has a high content of total dissolved solids (TDS), designated in PPM (parts per million). You should you get your water analysis from your department of public works, or done by a private company if you have a well. Water with a very high TDS can prove problematic to growing your first Paph, but in this case, with a single plant, you can purchase bottled distilled or reverse osmosis

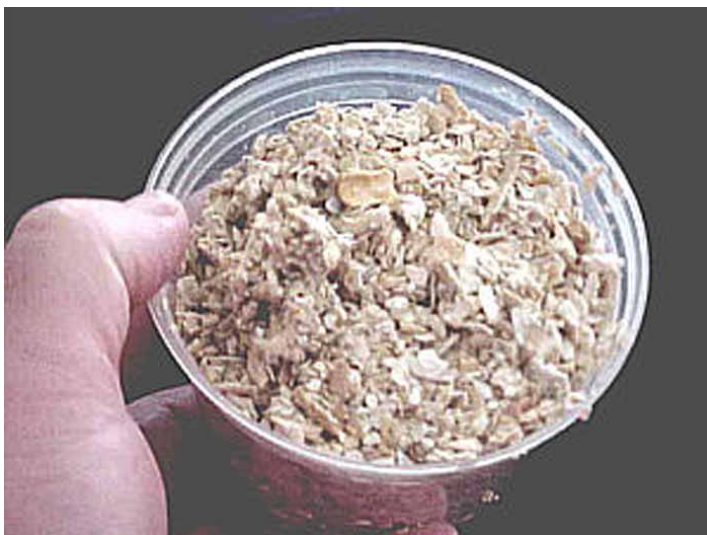
water, and use this for irrigation every second watering. This should help flush from the roots any minerals accumulated from your tap water. The final point on water is do not use water that has been 'softened', as this will kill the plants. If you are interested in more information on water and water quality, please read "Water Quality Issues for Slipper Orchid Growers".

Fertilizing

Fertilizing is the second most important aspect of Paph culture. We have detailed information in the chapter on mineral nutrition, but for simplified purposes of getting you going with your first Paph, the suggestion is to fertilize very weakly. If you don't know what your water quality is, or suspect that it is pretty hard, then fertilize only every second or third watering, and use about 1/4 of the recommended dosage on the label of the fertilizer. If you know you have pure water, or are using rain water or distilled or otherwise purified water, then you may consider fertilizer every two or three times out of four that you water, and possibly slightly increasing the amount to as much as half the recommended dosage. If your tap water is hard (see description in the above paragraph) and you are using rain or otherwise purified water instead, consider watering with a fifty-fifty mix of your tap water and the pure water once a month to insure adequate calcium supply. Also consider substituting Epsom Salts for the fertilizer at the same level you'd use the fertilizer about once a month, regardless of your water source. The above program is basically a compromise program to put you in a situation under which the beginners Paphs listed will grow under a wide range of possible water qualities; it is meant to simplify things until you get to the point where you want to learn the more intricate details of water quality and fertilizing that will allow you to become a master Paph. grower. If you want more details on fertilizing, see "Mineral Nutrition Issues for Slipper Orchid Growers".

Light

The first point to consider with light is that it is better to err initially on the side of too little than too much. It is easy



CALCIUM CARBONATE PRECIPITATED FROM HARD WATER IN A WATER HEATER. THIS IS THE STUFF THAT MAKES WATER "HARD".



CHECKING LIGHT LEVELS BY JUDGING THE INTENSITY OF THE SHADOW CAST BY YOUR HAND.

enough to slowly increase the light level to the proper level with no trauma to the plant, whereas placing it where it may suddenly get direct sun or too close to a high intensity discharge light may damage the plant. Under fluorescent lighting, it would be difficult to give the plant damaging light levels, although you can certainly cause unsightly but not fatal burning of the leaf tips if they touch the bulbs.

One can gauge the light intensity of greenhouse or HID grown plants by placing a hand about 10 inches above the plant and looking at the shadow cast upon the plant. You should see a slight shadow; if it is a very pronounced shadow, then your light levels may be too high, whereas no shadow would suggest a light level that is too low.

Paphs that are growing in too strong light will generally exhibit bleached looking leaves, i.e. very light green or approaching whitish green, and will mature smaller and smaller growths, and may put out multiple, tiny growths at the base of the plant. Inflorescences will also tend to be short, and the flowers may be small and hard. Too little light, and the leaves of your Paph will be relatively dark green in color, overly long, perhaps floppy and/or lacking substance. Growths will mature slowly, and the plant will take longer to flower than if it were grown in higher light---perhaps the plant will take 1.5 years to

mature a growth to flowering size, for example, rather than the expected 10 months. If you believe that you have too much light or little light for your Paph after a period of time, make the changes to the correct conditions slowly and over a period of time so that the plant can become accustomed to the new conditions. This way it will not suffer trauma during the transition---in other words, don't take a dark green, floppy plant and place it in a bright south window and hope that you can thereby speed up its growing and flowering. It will only burn in this too high light, and you may end up losing the entire plant in a very short period of time. Generally, you can expect the species Paphs to flower every year, pretty much on a set schedule, with the exception of the previously mentioned cochlopetalum species and hybrids, which can flower successively over several months. The Maudiae types can easily flower twice a year under the right conditions.

Windowsill growers need to be aware of the amount and duration of light available at the window, as well as the temperature fluctuations where they plan to grow their plants. Some people have had limited success with northerly facing windows, and this can work if the window is large, or there are sliding glass doors at this site, and there are no trees further obstructing the sunlight reaching the plants. If the Paph is placed on the windowsill, and you live in the north where the winters are frigid, you will have to maintain extra distance between the pot and the glass of the window. Bear in mind that temperatures next to the window glass can be close to freezing if that is what the outdoor temperatures are! Be careful not to overly chill the roots of the plant, which might just slow down the plants growth, but could also freeze it to death if the temperatures plummet. If possible, it might be best to place the plant during the cold winter months on a table close to the window where it will get sufficient light, but will also stay closer to the temperature of the room itself. If the north facing window is less than large, supplemental lighting could be added in the form of a 'shop light' with 2 fluorescent bulbs hung over the plants on the windowsill or table placed next to the window. Single bulbs sold as 'grow lights' are, in our opinion, not worthwhile. Generally, quality and quantity of light is better for Paphs at east or west facing windows. South facing windowsills can be a challenge to grow in, because of the light intensity and accompanying heat from mid day sun, especially in the summer. Growing in a south window is possible, though, if you can place the Paph back some distance from the window, say around 12 inches or so. When the sun is strongest at this location, place your hand on the leaves: if they have become warmer than your hand temperature or feel hot, then the light (and the heat) may be too strong and the plant will need to be moved back. Alternatively, if it is not excessively hot, increasing air movement may help dissipate the heat at the leaf surface. If these solutions are not possible or successful then it may be necessary that the plant be moved to a different window. Alternatively, you could place your Paph in this window if there is a plant in front of it that can withstand this stronger light and heat, and will thus shield the Paph somewhat from the harsh conditions. Use of sheer curtains may also work as long as they do not excessively limit the total amount of light that reaches the

plants leaf surface. You may have to experiment with the curtain for several days, pulling it several inches either way, before you feel that you have it arranged 'right', so that the plant's leaves will not get hot to the touch, but it will also get enough light so that you will get flowers.

Under a two 40 watt bulb fluorescent light set up with standard bulbs, you will want to get the plants leaves within a few inches of the bulbs. We prefer C50 (5000K) bulbs, but you will probably be able to do fine with almost any of the commonly available bulbs. When you are ready to optimize you fluorescent set up, we suggest Philips C50 Ultralume bulbs, which have a substantially higher lumen output than standard C50s and will allow you to do better with some of the higher light requirement Paphs, such as *Paph philippinense* and other multiflorals. If you have a 4 bulb fluorescent set up you will probably be able to place the plants 6 to 8 inches below the bulbs. Remember that the bulb output is greatest near the center and diminishes towards the ends, so arrange your plant placement accordingly. Also, growing under fluorescent lights will automatically provide some of the day/night temperature differential of several degrees that most plants appreciate, as the lights go on and off.

HID (high intensity discharge) lights (high pressure sodium or metal halide) put out considerably more lumens per watt, so care must be used in plant placement with them. It is indeed possible to burn a Paph if placed too close or directly under one of these lights, so using the light shadow rule, start below and to the side of the light, gradually moving the plant into higher light until you have it in a position where the leaf color is ideal.

Paphs do not appear to be particularly photoperiod sensitive and the plants suggested for starting with are not among those that require higher light intensities. A photoperiod of 12 to 14 hours should work very well with these plants. Windowsill



HIGH INTENSITY DISCHARGE LIGHT FIXTURE.

growers unable to provide this longer photoperiod in the winter months may not experience as rapid growth without supplemental light, but the plants suggested here nevertheless should grow and flower for them.



Look for part three of Bob & Lynn's article, "Quick Start—Buying & Growing Your First Paph, in the December issue of THE ORCHID ENTHUSIAST. The full text of the article can be found on the AnTec Laboratory website, <http://www.ladyslipper.com>. Text and photos © Bob & Lynn Wellenstein. This remarkable site is a virtual treasure trove of information for the ladyslipper enthusiast, with cultural information on nearly all the slipper genera, including Paphiopedilum, Phragmipedium, Cypripedium, and Mexipedium. In addition, it has the most comprehensive set of photographs of both species and hybrids on the World Wide Web!

**ANOTHER VIEW FROM GARY
STENSLAND'S "JANUARY DAY
DREAM"**

**A patch of *Paphiopedilum
micranthum*? Perhaps *Paph.
delenatii*? Or, just maybe, it's
a patch of the newly described
Phrag. kovachii (aka *Phrag.
peruvianum*)!!!**

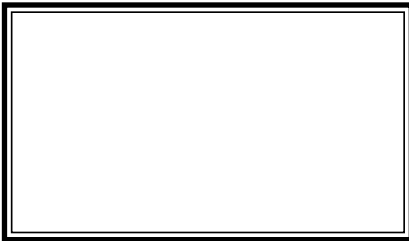


Road Trip to Marlow's Orchids
Meet at St. Augustine's Church, 10AM

Expanded
Show hours!



Next Meetings: This Sunday, November 3rd



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The Central New York Orchid Society meets at St. Augustine's Church, 7333 O'Brien Rd, Baldwinsville, at 2:00^{PM} on the first Sunday of each month from September through June. Yearly dues are \$15.00 per individual, or \$17.00 family. Dues should be paid to the CNYOS Treasurer, Elinor Burton.

THE ORCHID ENTHUSIAST

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