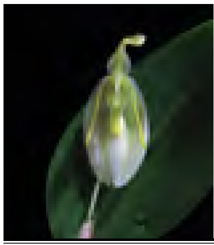

Pleurothallid News and Views

The Official Publication of The Pleurothallid Alliance

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Spring 2013 Volume XXIV Number 1

The Artificial Propagation of *Masdevallias* and *Draculas* Part I

by John Leathers

Let me begin this article with a bit of history. Not long after the first *Masdevallias* were discovered growers began making *Masdevallia* hybrids. The first *Masdevallia* hybrid registered was *Masd.* Chelsonii, a cross of *Masd. amabilis* x *Masd. veitchiana*, registered in 1880 by Messrs. J. Veitch & Sons, Chelsea, and Slough, Bucks. Since that time there have been over 1,270 *Masdevallia* hybrid registrations. Hybridizing has been an on-again, off-again effort with passionate efforts followed by periods of little interest. While the hybrid history is documented, we have no way of knowing how many outcrosses and "selfings" were made of species *Masdevallias* and *Draculas.* Such crosses, or more correctly grexes, are not subject to registration.

Masdevallia rubiola - this rare species from Bolivia was artificially propagated from seed making it more widely available to growers

My propagation efforts began with the interest of preserving species *Masdevallias* and *Draculas* and as a way to make rare species more widely available. This was particularly compelling to me because a number of species from both genera are likely extinct in their natural habitats, at least at the sites of their original discoveries. The major cause of this is the encroachment of man and the denudation of tropical forest, either from being converted for farming or as a source of fuel and wood products. In the case of *Masd. datura*, the original collection site is now a soccer field. With some plants now only found in private collections, artificial propagation is the only chance to preserve these species. Thus, we become the guardians of these plants and their genome.

Masdevallia datura - a cool - growing, fairly rare species from Bolivia

I expanded my efforts to "primary" crosses by combining two species as parents. The seedlings that result from such crosses almost invariably result in plants that, although somewhat varied, have a certain "sameness" to the look of them. Typically, this look is somewhere between the characteristics of the two parents. However, even within such simple crosses there are occasionally wonderful surprises!

continued on page 5 column 2

The President's Message

Time to get on my soapbox. I assume you have noticed that this issue of the PA News & Views is late. Don't blame the editor, John Leathers. As they say on PBS, John relies on contributions from viewers like you. He can't print what he doesn't have.

How many times in your life have you been reminded that you get out of any activity only in proportion to what you are willing to invest? This is true, too, of this newsletter. We need your fresh ideas, your expertise and your experience. This newsletter will succeed only if Pleurothallid Alliance members are willing to document and share their knowledge, either through articles you write and submit, ideas for articles by your friends, or working with us to develop an idea into a printed resource. We are limited only by our collective knowledge, curiosity, imagination, and willingness to experiment. The PA News & Views will continue to be, we hope, truly and literally a publication by and for Pleurothallid fanatics.

Time to get off my soapbox and figure out what I can contribute to the next issue. Maybe something about Lepanthes?? Nah, I'd better leave that to one of you.

Joe Parker

Pleurothallid News and Views is published quarterly as the official newsletter of the Pleurothallid Alliance. Subscription is a benefit of the membership in the Pleurothallid Alliance. A one year membership (U.S., Canada and Mexico) is $18, international is $24; two year membership (U.S., Canada and Mexico) is $33, international is $45. All payments should be in U.S. funds. Contact the Secretary/Treasurer. All botanical drawings appearing in this publication are used with kind permission of Carlyle A. Luer unless otherwise noted.

In This Issue . . . .

ARTICLES NEEDED!

I would like to encourage anyone with an interest in writing an article for the Pleurothallid Alliance Newsletter to do so! Articles of any length are welcome and should be submitted by email to jjleathers@comcast.net along with accompanying photos.

Save the Trees for the Forest!

Save the trees for the forest and receive your newsletter by email! Not only will this reduce your carbon footprint (and help to save the environment), but you will be able to view all images in color, not just the ones in the center spread. If you wish to do so, contact the editor at jjleathers@comcast.net; the printed newsletter will still be sent out to anyone wishing to receive it.

See YOU on Pleurothallid-L!

by Carlo Balistrieri

Can't get enough information and chatter about Pleurothallids? Most of us can't wait for our next issue of Pleurothallid News and Views. Neither can I, so I started a place for us to talk about our favorite subtribe any time we want.

On July 29, 2003 I posted the first message on Pleurothallid-L:

Dear Pleurothallidiphiles:

Well folks, here you have it. Pleurothallid-L is off the ground. My thanks to computer/net guru Lawrence London and ibilio for putting together the technical end of this, and hosting the list. My hope is that this will prove to be a good way to communicate about our favorite plants--for people in the Alliance and outside it. Who knows, it may help attract new members.

All things Pleurothallid are welcome here. I'd like to restrict our discussion to the subtribe to avoid redundancy with other orchid lists, other than that, it's your list. Please feel free to make it a resource--let's get the discussion going!

It's amazing to think that the 10th anniversary of that posting is upon us. It's even more amazing that so few people (yes, I know we are a pretty select group to begin with…) are aware of it and using it as a communications vehicle.

…But the discussion has been going ever since that first post. It's a quiet, humble little list—not the sort that fills your inbox with inane chatter about everything and nothing. Unfortunately for some, it's a little too quiet, possibly because, outside of the Alliance's official website: www.pleurothallids.com it isn't really promoted. People find us because they love the plants, and those are the people we're after. You love the plants too, or you wouldn't be reading this. Why don't you join us? Join the discussion when you have a question or something to say, just read the messages when you don't. We'd love to have you on board.

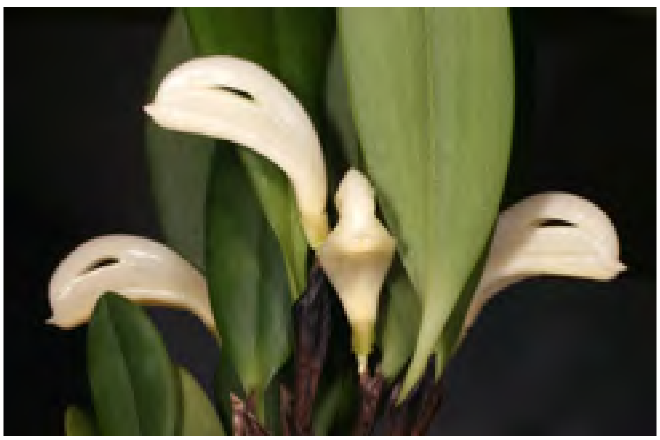
http://lists.ibiblio.org/mailman/listinfo/pleurothallid-l

Serpents and Vultures - the white *Zootrophions*

by Lynn O'Shaughnessy

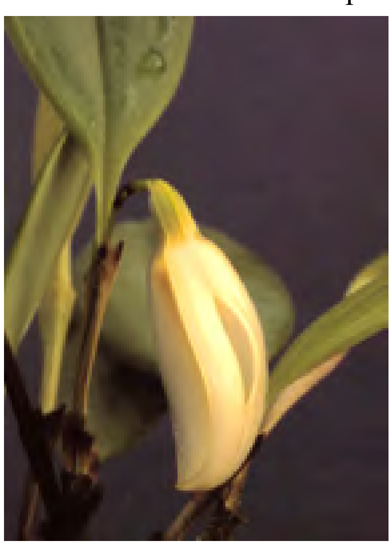
What is that peeking out from under the leaves? Is it the head of a tiny animal? Or maybe a bird? It is fun to speculate with *Zootrophions*!

I have always found the genus *Zootrophion* fascinating and enjoy letting my imagination run wild when looking at the flowers. The name *Zootrophion* comes from the Greek for "menageries" and refers to the similarity of the flowers to the heads of different animals. The trademark feature of *Zootrophion* is the "eye" formed by the sepals that are fused at their tips. The 19 or so species come in a variety of



Zootrophion niveum

colors, but my favorites are the two white species, *Z. niveum* and Z. *vulturiceps*. I love the contrast of the ghostly-white flowers and leaves and the shapes of the funny-looking flowers.

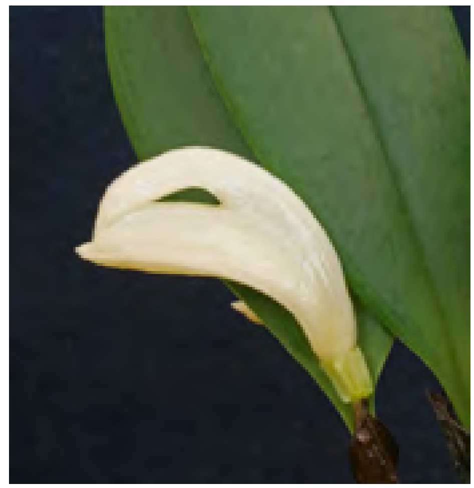


Zootrophion niveum

The plants of these two species have many desirable qualities. The size of the plants range from about 5 to 9 inches tall, making them suitable for growing under lights or in a Wardian case. The flowers bloom from the base of the leaves on short inflorescences and will usually bloom simultaneously in a flush. The waxy, white flowers can last for 3 to 4 weeks...a plus for pleurothallid growers. And... the best thing...you don't need a magnifying glass to see and appreciate the flowers!

Culture

Z. niveum is native to Ecuador at altitudes of 900 meters (around 3,000 feet). *Z. vulturiceps* comes from Costa Rica at altitudes slightly higher. Like most of the species of *Zootrophion*, these two can tolerate warmer temperatures and still do well. During the hot spell in July when the temperatures outdoors got into the 100's in Michigan, my greenhouse was in the 90's for several days. The zootrophions did not seem to suffer at all. The humidity was quite high during this time, which is always better than dry heat for pleurothallids. I don't think they could stand being in the 90's on a regular basis without a nighttime temperature drop to at least 70 degrees or so, but they certainly did well for the short term and would do well with high daily temperatures in the 80's.



Zootrophion niveum

The leaves of *Z. niveum* and *Z. vulturiceps* are thick and hard. The ramicauls (leaf stems) are rigid and covered with several loose brown sheathes. Together, this allows for some water storage for the plants. The plants can withstand some dry periods, but as with most pleurothallids, will do much better when kept in a humid environment of 50% to 70 % or more. If you are growing them a little on the dry side, one thing you would need to watch for is leaf tip burn...usually from the fertilizer.

Zootrophions seem to grow well in a variety of media. What works best for me is New Zealand moss in clay or plastic pots. I tend to use the clay pots for larger plants, the plastic pots for smaller ones. I have also grown them well in an orchid bark mix, but found that I needed to water a bit more often. I prefer not to mount these two plants since they are upright growers and the flowers display at their best with the plant grown in a pot. Feel free to experiment with what works well for you since zootrophions seem to be easy to work with.

One of the biggest insect problems I see with zootrophions is brown scale. While I have not seen them in my greenhouse, mealy bugs also like zootropions as well. It is easy for these insects to hide inside the sheathes and go undetected while they multiply, so I suggest that you be vigilant and inspect your plants for pests every now and then. Keep a clean growing area and try to treat any insect problems early.

I grow my zootrophions in a brighter part of the greenhouse. No direct sunlight for these plants, but they do seem to bloom better when they have brighter light.

As with most pleurothallids, zootrophions are not heavy feeders. They do well with a "weakly weekly" fertilizing program. My favorite is the Michigan State University formula for reverse osmosis water. Good quality water is also important. Reverse osmosis or rain water are best.

I mentioned earlier that keeping the humidity above 50% allows for better plant growth. In addition to that, good air movement is important also. It helps to keep the leaves from getting bacterial spotting that often comes from higher humidity.

If you have been reluctant to try pleurothallids because you have warmer temperatures in your growing area, then you should try zootrophions. Start your own collection of serpents and vultures...you won't be disappointed!

Lynn O'Shaughnessy
freespirit@pleurothallids.com

References

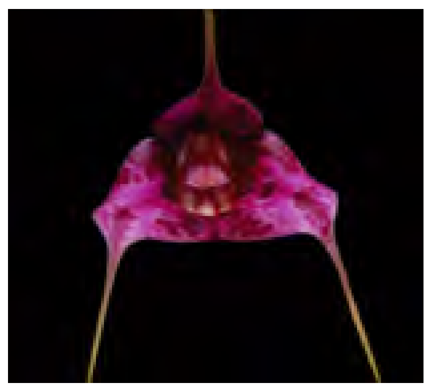
Luer, Carlyle, *Icones Pleurothallidinarum* volume XXVI, Missouri Botanical Garden

continued from page 1

In the case of *Masdevallia* John Leathers, a primary hybrid between *Masd. chaparensis* and *Masd. calocodon*, the spots of *Masd. chaparensis* follow along the lines of *Masd. calocodon* looking like jagged lightning bolts. There was little variation from one clone to another. As with most primary crosses the results were somewhat homogeneous.

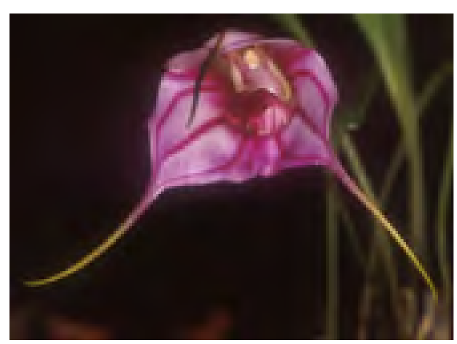
Masdevallia John Leathers (*Masd. chaparensis x Masd. calocodon*) a primary hybrid

Eventually, I broadened my in-vitro propagation efforts, acquiring a curiosity of combining traits from different complex crosses to see what resulted. This has become a compelling drive. The nice thing about this decision is I can do both, propagating species and venturing forth to see what new beauty is revealed in new hybrids. Regrettably, the process is slow. It can take up to five years before one sees the results. In the terms of new hybrids, this varies from the mundane to the spectacular.



Masdevallia chaparensis 'Rip-Hoff'

Progressively, beginning with primary building blocks and progressing to more complex hybrids, a hybridizer can build plants that combine multiple



Masdevallia calocodon

traits. This provides the hybridizers a tremendous pallet of colors, shapes, spike habits, blooming times, warmth tolerance and other desirable traits.

It is difficult to convey or share the excitement of seeing a new cross bloom or the satisfaction when you bloom something really terrific for the first time.

Masdevallia ignea - seedling from a third generation out-cross

Masdevallia veitchiana seedling from a second generation out-cross

The attached photos provide a visual story of propagation used to artificially propagate species and create new orchids. These photos demonstrate polinating to first bloom of species outcrosses, primary and complex hybrids along with photos of the resulting seedlings. Making a cross, whether it's the selfing of a species, an outcross or a hybrid is the easiest part of the propagation process. You simply take the pollen from one plant and put it on the stigmatic surface of another - cross the best with the best and hope for the best. Difficulties begin when having to deal with the mature seed pod or more correctly, capsules. For *Masdevallias* and *Draculas* the typical maturation time for the capsule is about four months.

There was a time, a few years back, when there were a number of orchid propagation laboratories that accepted and grew orchid capsules and seed from hobbyists. Unfortunately, perhaps because of the diminishing interest in raising of seedlings, the number of laboratories has significantly declined. Many of the remaining labs won't take hobbyists as clients preferring larger customers. There's a growing trend for most large orchid nurseries to have their lab work done offshore where it is done more cheaply. Lab work is labor intensive requiring dedication, skill and time. Some of this effort and expense comes from having to work in a sterile environment, typically within a laminar flow workstation.

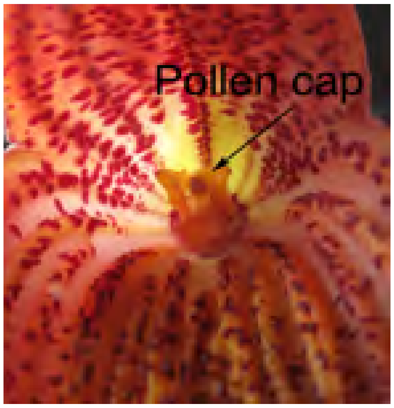
For my efforts, I setup a home lab located in an upstairs bedroom. I will discuss this further in Part II of this article.

Pollination

Masdevallia hercules with an insect carrying pollen on its back

Pollination occurs when the pollen from one flower is placed on the stigmatic surface of another. Within days after pollination the flower collapses and, if all goes well, a seed (embryo) capsule will begin to form. Sometimes this process aborts and the nascent capsule yellows and withers.

After a capsule forms it typically takes around 16-20 weeks to mature. Upon maturation, the capsule begins to yellow and within a few days splits open and the embryos dehisce, discharging seed. If a capsule ripens and splits before it is harvested most or all of the embryos may be lost via dehiscence. If embryos are recovered they must be surface sterilized before sowing or the culture media will get contaminated by pathogens. It is preferable to harvest a capsule and sow the embryos before they fully mature. The timing of this can be tricky as capsules often change from "green" to mature in a few days. This method of sowing is called the "green capsule" method with the embryos remaining sterile as long as the capsule has not split. Thus, only surface sterilization of the seed capsule, before cutting, is required. Sterlizing the surface of the capsule is done with Clorox or a hydrogen peroxide soak, done within the sterile work station shortly before sowing. With *Masdevallias* and *Draculas* the embryos are quite small which makes sterilizing them a bit dicey. The laws of geometry state, the smaller an object, the greater its surface-to-volume ratio. This makes very small embryos much easier to kill by the biocide used for surface sterilizations of embryos.

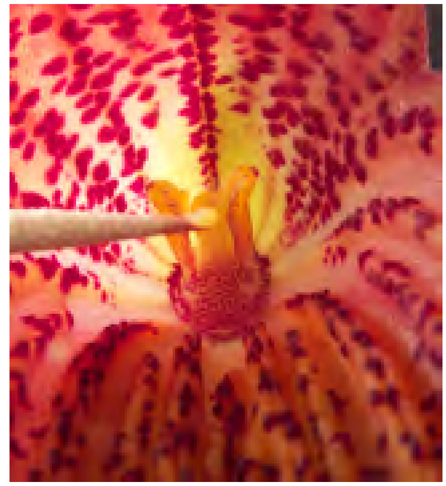


The pollen is located under the pollen cap

With the pollen cap removed the stigmatic surface is easier to see

The art of pollination and the mechanics are the same whether propagating a species or creating a new hybrid. When propagating a species it is generally better to cross different clones together to get a more vigorous cross as well as a better representation of the diversity of the species. This vigor is known as heterosis. When parents are not related the cross is typically identified as an "out-cross" and when related as a "sib-cross". Self pollination is called a selfing.

It is sometimes impossible to successfully self-pollinate a species. It is speculated that some plants recognize their own pollen and abort the fertilization process. In cases where there is only one known clone of the species or it is so rare as to make it virtually unavailable, the plant can sometimes be fooled by wetting the pollen with saliva before placing it on the stigmatic surface. This is purported to breakdown surface proteins by digestive enzymes and thus "fools" the plant so it does not reject its own pollen. Another protocol is to use pollen from a different species along with a plants own pollen. Thus, "selfings" and hybrids grow together in the same capsule. The resulting seedlings can later be separated as long as the surrogate pollen is taken from a parent with different growth habit or stature to make the seedlings distinguishable. Worse comes to worse the blooming seedling will reveal the matter and have the last say.


Masdevallia pollen on the end of a toothpick ready to be placed on the stigmatic surface


Mature "green" capsule

In the next issue I will continue the article with the artificial propagation of the seedlings once the seed capsule matures.

John Leathers
jjleathers@comcast.net

References: Sanders Complete List of Orchid Hybrids

The "H" Word (Hybrid)

Masdevallia Heathii and Some of its Hybrids

Masdevallia Heathii is a primary hybrid between *Masdevallia ignea* and *Masdevallia veitchiana*. It was one of the first *Masdevallia* hybrids to be registered with the RHS in England. The original cross was registered on March 12, 1899 by Heath and Sons, Cheltenham, England. Since then it has been remade numerous times as well as being a parent of 24 offspring and 41 total progeny with *Masdevallia* Heathii in the background.

Masdevallia Heathii 'Flame' AM/AOS, is from a remake using selected parents

Masd Heathii crossed with *Masdevallia coccinea* makes a cross named *Masdevallia* Rubicon, which was first made in 1988 by P. Mayhead from New Zealand. I have seen a variety of colors from this cross, ranging from clear yellow to intense red.

This clone is from a remake of *Masd*evallia Rubicon

A cross that I made a number of years ago of *Masd*. Heathii crossed with *Masd. discoidea,* a species from Brazil, creates an interesting, warmth tolerant hybrid. The clone in the photo normally blooms with only a single flower per spike. However, when it has a successive flower on the same spike, the second flower is always a different color as it appears in the photo above.

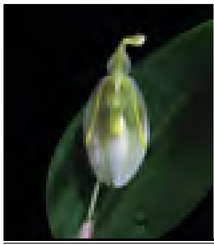
Masdevallia John Tomaschke (*Masd*. Heathii x *Masd. discoidea*)

The third and last cross is a cross of *Masd*. Heathii with *Masd*. Fraseri, made by Theresa Hill of Hillsview Gardens in Oregon. This hybrid has beautiful large, concolor orange flowers on self-erect stems.

Masdevallia Cascade (*Masd.* Heathii x *Masd.* Fraseri

John Leathers

References: OrchidWiz



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Summer 2013 Volume XXIV Number 2

The Artificial Orchid Propagation of *Masdevallias* and *Draculas* Part II

by John Leathers

Embryo Sowing and Growing the Seedlings in the Flask

Embryos are initially sown on sterile nutrient media in a container often called the mother-flask or "mother". I typically sow two mothers of each cross to hedge my odds against contamination. Having a second mother means if one mother gets contami nated there's a good chance you will not lose the entire cross.

Germinated Mother Flask - about 7 months since sowing

Once a cross germinates it often forms a carpet of green which eventually become seedlings, which look like grass. At or shortly before this point it is best to spread and thin out the seedlings into a new flask to give them more room to grow. At every stage from this point forward a large number of seedlings get discarded; only the most vigorous plants are selected for spreading.

A Replated Flask

The interval between sowing and spreading is hard to define because the germination and growth rates in the flask vary considerably from one cross to another and the climate of the flask room. Typically, in about six months to a year after spreading, the plants mature and become individual seedlings and are then ready for final replating. The seedlings are placed in a new flask with enough space between them for continued growth with approximately 25 to 40 seedlings per flask depending on the size of the plants and the size of the flask.

Tools used under the hood must be sterilized either with a torch, which is what I use or chemically using Clorox or hydrogen peroxide

In an adjacent room, we have a light-rack to grow the replated seedlings under fluorescent lights until they become "photosynthetic" and can be deflasked to grow on their own. Having a lab on the second story seems to reduce the risk of a type

continued on page 16

The President's Message

In this issue of the PA News & Views, you will find a major article, "Hang 'Em High", written by … well modesty prevents. OK, it isn't really a "major" article, more of a modest little article of fewer than 1500 words. It describes a simple jig for making pot hangers (Hopefully this description won't confuse our Colorado friends). It didn't take me very long to write it and the photos didn't have to be world-class. My major problem was remembering to include all the steps. Hopefully I succeeded.

Although not the Great American Novel, it is the kind of article which may be useful to someone else looking to optimize their use of wall space. I'm sure many of you have developed, or learned, other simple techniques over the years. Please take the time to document them and send them off to John. I, for one, am eager to learn more.

Finally, for those of you planning an escape from Winter's woes, consider a trip to Pacific Orchid Exposition at Fort Mason in San Francisco in February. Our local Pleurothallid group will be holding a potluck dinner at Fort Mason on Friday evening, February 21. I would love to meet more of you. For more information contact Kathy Parker at jandkparker@mindspring.com.

Joe Parker

The Pleurothallid Alliance

Purpose: To encourage the cultivation and appreciation of all orchids of the subtribe Pleurothallidinae; to assist in disseminating knowledge about them; to gather information about habitats; and to support horticultureal and scientific studies of pleurothallid orchids.

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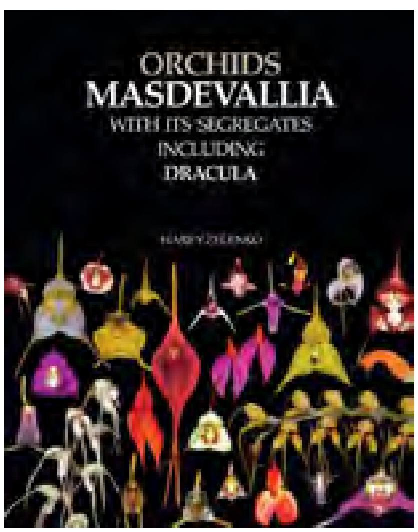
In This Issue . . . .

Coming soon: Masdevallia and its Segregates Including Dracula, by Harry Zelenko.

For the past several years, Harry Zelenko of Cumbaya, Ecuador has been working on a book to catalog every Masdevallia species (or at least as many as possible that have been photographed), as well as anything to used to be a Masdevallia at some point in history, including Dracula, Porroglossum, and Trisetella. This book will be similar in concept and size to his Orchids: Species of Peru book; that is, primarily a photographic documentation of the genera covered. Many people associated with the Alliance have provided photos and essays for the new book. Additionally I, Alfonso Doucette, and Lisa Thoerle have been working with Harry to edit and verify identifications. The book is in its final stages of editing and will be printed in a limited pressing in Ecuador. When the book becomes available, there will be a special discounted price for Pleurothallid Alliance members (to be determined). Stay tuned for more information!



Pleurothallis pectinata

text and photos by Lynn O'Shaughnessy


Each leaf will have one inflorescence with 16 to 20 flowers.

The first time I laid eyes on a plant of Pleurothallis pectinata was at the 2009 Fall AOS Members Meeting in San Marino, California. It won the Pleurothallid Alliance Ron Griesbeck trophy for the most unusual pleurothallid species at the show — and unusual it was. The specimen, grown by Alfred Hockenmeyer, was displayed in a manner that allowed the leaves to hang like little duck feet from a mount against a contrasting black background. Because it was at eye level, visitors could hardly miss this interesting and curious species.

Pleurothallis pectinata is seldom seen in collections, but is one of those species coveted by orchid growers who love intriguing plants while they are both in and out of bloom. In addition to looking like upside-down lily pads or duck feet, the leaves have a bluish-green cast, providing an attractive background for the green-to-white flowers nestled inside. The flowers usually appear once a year in the autumn and are long lasting for a pleurothallid. Blooms can last up to a month or two, which is good because it gives you time to discover them inside the leaves.

Pleurothallis pectinata was originally described by John Lindley in 1839. In Latin, "pectinatus" means "like a comb," which aptly describes the flowers of this species. Lindley's original description of this species is as follows: "The flowers are sea green, with a few deep purple spots at the base of the labellum. The leaf is so firm, and so much hollowed out, that it is capable of holding water, as if it were made of metal."

This species originates in southeast Brazil around Rio de Janeiro as an epiphyte at elevations ranging from near sea level to around 3,300 feet (1,000 m).

The beautiful contrasting combination of flower-to-leaf colors.

Because of the elevation, one might believe that this would be a warm grower. This is true, but it also does well in cool to intermediate conditions. Kathy Parker (pers. comm.) in Los Gatos, California, grows her plant in temperatures that can get down to 50 F (10 C) in the winter.

As the habit of Pths. pectinata suggests, any attempts to put this plant in a pot would be futile.

Looking up under the bowl-shaped leaves reveals the flowers. This also shows the bluish cast to the leaves. Older leaves will lose some of the bluish cast.

It begs to be grown in a manner that allows the leaves to gracefully hang like they do in their natural habitat, which is part of its charm. Mounting it on cork with a generous pad of sphagnum moss seems to yield the best results. The sphagnum allows for some moisture retention, which is important because Pths. pectinata should not dry out for any length of time. Despite the somewhat succulent leaves, this plant really thrives on higher humidity and more consistent moisture at the roots.

Plan to grow Pths. pectinata in indirect sunlight. In its native habitat, it is normally found in the branches of trees under the forest canopy. Good water quality and a fertilizing regime of "weakly weekly," which is recommended for most pleurothallids, works for Pths. pectinata. If you do decide to try growing this species, you will need to be patient. It may take up to a year or more for a newly purchased plant to acclimate to your growing conditions and begin to put out additional leaves.

The "duck feet" leaves of *P. pectinata*

Unlike many pleurothallids that multiply like the Energizer Bunny®, you will find Pths. pectinata to put out only a few new leaves each year. However, like most pleurothallids, it will rebloom again and again on each leaf every year once the plant is established.

Reprinted from AOS Orchids magazine, September 2011.

Lynn O'Shaughnessy
freespirit@pleurothallids.com

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Hang 'Em High

Sooner or later we all have to face the fact that there ISN'T always room for one more. The greenhouse benches are full of pots, or in my case, the rafters are full of hanging Draculas. You remove a pot from the bench and when you go to replace it, you find there's no room available. You could swear that the other pots have conspired to annex the newly freed up space while you weren't looking. You start eyeing the walls enviously. Since most Draculas want to send flower spikes down, I, perhaps, started eyeing the walls earlier than most.

A number of years ago, I saw some wire pot hangers in John Leathers' greenhouse. He was using them to hang Draculas in plastic mesh pots (and lesser Pleurothallids in clay pots) onto wire grids on the walls of his greenhouse. When asked about them, he said he had gotten them years earlier and did not know of a current source. Now, I'm not one to pass up a challenge. After all, that's how I ended up on the slippery slope of Dracula growing in the first place. So, I decided to make my own. Knowing that I would ultimately need to make many of them, I decided to start by making a bending jig to simplify the process. I have now made hundreds with this simple jig. In my conditions, they do rust out in a few years, but they are so simple to make that I don't mind.


Clay pot with hanger

Constructing the Jig

I made my jig out of a block of hard maple. It could be made of a different wood, as long as it is a dense, hard wood, not just a "hardwood". This is a bending jig after all. I made mine 5/8" x 1 ¾" x 7 ¾" (15.9mm x 44.5mm x 197mm). These dimensions are not critical. They just seemed to make an easy to hold block and "easy to hold" is important. As you can see from this picture, my jig has seen a lot of wear. The block was made by gluing together two pieces of maple,


Bending jig

one ¼" (6.4mm) thick and one 3/8" (9.5mm) thick. This construction meant I could make the required holes in the jig by cutting grooves in the 3/8" piece before gluing the two together instead of drilling holes to precise depths. It also meant I could round over the edge of the ¼" piece to ease the bending of the curved hooks. This is not critical and, with sufficiently heavy wire, the hooks would bend just as well without the rounding. So, either replicate my block or just pick any comfortable block of hard wood.

What is important are the holes. The holes must be the correct depth to define where the bend occurs. The hole diameter must be sufficiently larger than the wire being used to ensure that a possibly bent wire reaches the bottom, but sufficiently tight that the bends are sharp. Using 12ga (0.08" or 2.06mm diameter) wire, I started with 3/32" (2.4mm) holes. They've now worn a bit larger.

Deciding that the hooks would be the same size and spacing no matter how big the pot, I designed the jig to make bends measured from each end of a piece of wire. That way, different lengths of wire would be selected to make hangers for different sizes of pots. Or, alternatively, if I started with the right length of wire, the result would be correct. More about wire lengths later.

Based on the sample I "borrowed" from John, I decided that there were 3 separate bending operations. First, creating the two bends which latch together to make the ring of wire to hold the pot. Second, bending the two wire ends up from the ring leading to the end hooks. Finally, the two rounded hooks which hang the pot. Translated to the jig, this means:

1. One end of the jig has a hole in the middle which is 3" (76.2mm) deep. Thus, 3" of wire is used to make

each hook. The depth of this hole is one reason I decided to laminate my jig. It is hard to drill a small diameter hole that deep. Half of the end is then chamfered at 45 degrees. You want the two hooks that make the ring to be bent as much past a right angle as possible to ease crimping later.

Angle end of jig

2. The other end of the jig has a hole in the middle which is 2.25" (57mm) deep. This bend defines the length of the wire from the ring to the end of a hook. It also sets the spacing of the hooks at 2 x .75" (19mm) or 1.5" (38mm) apart

Flat end of jig

3. One side of the jig has two holes 1.5" apart. Each of these is 0.75" deep. These holes will bend the final hooks.

Hook side of jig

Finally, I have written on my jig the lengths of wire for a couple of my common ring sizes. For example, a 16" (406mm) long piece of wire will bend into a pot hanger with a slightly larger than 3" ring. Of course, since I was trained as a mathematician, I shouldn't have to write this down. I should instantly know that a ring with a diameter of 3" has a circumference of 3 x pi or about 9.5" and since in 1) above I reserved 3" from each end for the hooks, a pot hanger with a 3" ring would need 15.5" of wire. However, the world of mathematics and the real world are not always in precise agreement, so you will want to experiment to find what wire lengths work for you. One mathematical trick to remember is that if you want to increase or decrease the size of the ring, take the change in diameter and multiply by 3. This will give you the approximate amount to add or subtract from the wire length.

Using the Jig

Now that the jig is made, let's see how to use it.

1. Using the hole in the angled end of the jig, bend a sharp angle on each end of the wire. It is not easy to see from this picture, but the two bends are not in the same plane. The bend on the left is laying flat on the table and the bend on the right is sticking up from the table. It is easier to hook them together to make the ring if they are right angles to each other.

Step 1

2. Using the hole in the flat end of the jig, bend a right angle on each end of the wire. Notice that both of these bends go up from the table.

Step 2

3. Now, bend the wire into a ring, hooking together the two sharp angles made in step 1.

Note that this would have been harder if the two bends in step 1 had been in the same plane.

Step 3

4.Using a pair of pliers, crimp the bends from step 1 and smooth out your ring. It should now look like step 4.

Step 4

5. Push both ends of the wire into the hook side of the jig. Bend both wires simultaneously over the jig to form the hooks. (ref image 10 – step 5) Be careful that you don't bend the hooks the wrong way ☺.

6. Fit your ring to your pot and discover that it's the wrong size. Cut a new piece of wire and try again.

Step 5

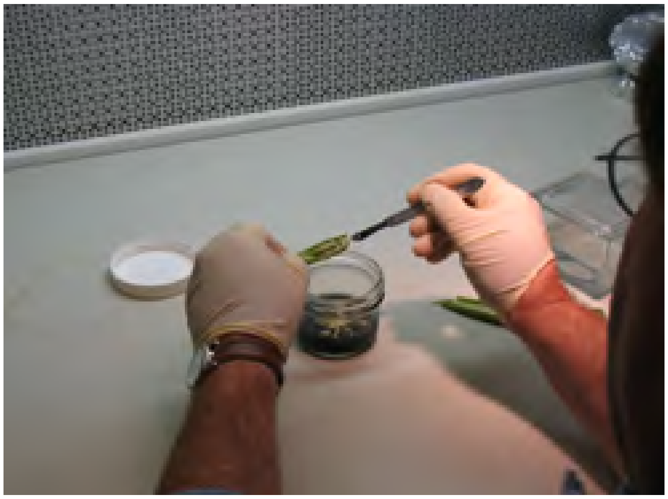
This jig is actually much easier to make and use than it is to describe. Before you know it, your problem won't be having too many orchids, it'll be what to do with all your extra wire pot hangers.

Step 6

Hanging in there
Joe Parker

(Continued from page 9)

of mite, sometimes referred to as an "agar mite", which can be a vexing problem in a flask room. For my early lab work I used glass containers. More re-



Sowing the seed from a green pod or capsule. If the seed has not dihesced it mst be scraped from the pod using a sterilized scalpel.

cently, I have switched to polypropylene containers with a vented lid which I procure from Belgium. I sterilize these in bulk using a large pressure cooker. The media is typically batched four liters at a time in a polypropylene carboy, sterilized in yet another pressure cooker and dispensed into these sterile

This is one of the light stands for growing the flasks under artificial light until they are large enough to survive on their own. The containers are the new vented flasks from Belgium

containers with the HEPA filtered horizontal laminar flow workbench. Once cooled, filled containers are stored until needed.

Growing the Seedlings

After growing in the replated flask for another six months or so seedlings are ready to be taken out

When there are a large number of seedlings from a cross, they are planted out in a flat

of the flask and planted in a community pot, also known as a "compot", to be grown until they are large enough to separate and plant on their own. The medium for the compot can be a variety of sub-

Seedlings planted out in individual pots.

strates. I grow in both sphagnum moss and a fine, seedling-grade bark/lava-rock mix. I water compots early enough in the day to assure they are dry before placing on the bench to prevent damp-off. It is important to handle seedlings with care so they are not injured. After growing in community pots the seedlings are eventually moved to small, indi vidual 2” pots in a mix of 50% Orchiata seedling bark/50% lava rock. From this point the seedlings are repotted into larger pots until they bloom. With species, you have a good idea of the outcome of a cross. One trip through the flask room often selects for better species vigor. With hybrids, especially complex hybrids, it’s pretty much a roll of the dice. Sometimes your cross blooms out as you’d expect. More often the results are a complete surprise. A good example of the diversity of a complex hybrid can be seen in the two photographs on page 18 of the unnamed hybrid cross of (*M.* Darya-y-nur x *M. coccinea*)

Blooming the Seedlings for the First Time

Finally, the wait is over and crosses begin to bloom. This can be either a very exciting time or sometimes a disappointment. There is no greater satisfaction in my growing than seeing a success. In the following photos I am not going to show my failures, a.k.a “woofers”. Just be aware that they happen thus my garbage can is often full. The appended photos are my successes, many of which are blooming, as I write this, for the first time.

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Sanders, *Complete List of Orchid Hybrids*
Luer, Carlyle, *Icones Pleurothallidinarum* volume XXVI, Missouri Botanical Garden

Seedlings beginning to bloom in a small community pot of a remake of *Masd* Gold Dust (*M. veitchiana* x *M. rex*) made by Laurent Minet from Belgium

ARTICLES NEEDED!

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Some Recent First Bloom Seedlings


Masdevallia Ligia Posada
(*M*. John Leathers x *M*. Bay Breeze)
two hybrids crossed together


Masdevallia unnamed hybrid
(*M*. Darya-y-nur x *M. coccinea*)


Masdevallia unnamed hybrid
(*M*.Patricia Hill x *M*. Samantha Kha)


Masdevallia unnamed hybrid
(*M*. Rubicon x *M*. Patricia Hill)


Masdevallia unnamed hybrid
(*M*. Darya-y-nur x *M. coccinea*)

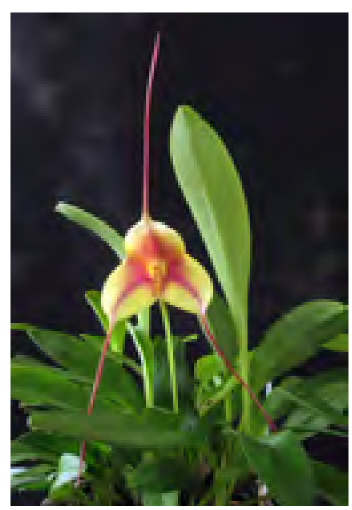
Masdevallia unnamed hybrid
(M. Falcata x *M*. Bay Breeze)

Masdevallia Bewitched
(*M. coccinea* x *M. rosea*) a primary hybrid

Masdevallia unnamed hybrid
[(*M.datura* x Harlequin) x *M. coccinea*]

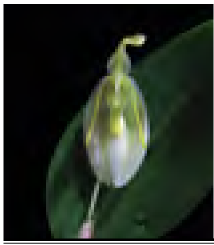
Dracula Richard Kaufman
(D. roezlii 'San Francisco' *x D. hirtzii* 'Pui Y's*)*

Masdevallia unnamed hybrid
(*M.*Patricia Hill x *M.* Fraseri)



Masdevallia Sabine (remake)
(*M. triangularis* x *M. exquisita*)


Dracula unnamed hybrid *(D.* Raven *x D. roezlii)*



Pleurothallid News and Views

The Official Publication of The Pleurothallid Alliance

Visit our website at - www.pleurothallids.com

Fall 2013 Volume XXIV Number 3

Pleurothallid Alliance Beginnings - Part I

by John Leathers

In the late 1970's and early 1980's an extraordinary resurgence of interest occurred in the orchid family *Pleurothallidinae*, especially the genus *Masdevallia* and the then-newly created genus *Dracula*, which up to that time had been included in *Madevallia*. As a neophyte orchid grower I became a member of that group of growing-enthusiasts. I began with a small collection of plants purchased from local orchid nurseries and by trading with other enthusiasts. I grew outdoors in a small lath house in my backyard. Little did I suspect where this obsession would lead!

As the number of Pleurothallid growers swelled so did the enthusiasm for information and knowledge about the growing conditions and general care of these extraordinary and often beautiful plants. In particular, Masdevallias started to appear and get noticed at our local shows. A number of specialty orchid businesses began selling pleurothallid species as well as primary hybrids. Some plants were divisions of historic hybrids while others were new and exciting. A partial list of orchid firms that sold Masdevallias were: The Beall Orchid Company, Vashon Island, WA; Species West located near Seattle WA; The Rod McLellan Company of South San Francisco CA; Coe's Orchid Acres in Sacramento CA, the Santa Barbara Orchid Estates and J&L Orchids in Easton, CT. Enthusiasm grew; a discussion began about creating an orchid group for Pleurothallids to share knowledge about these wonderful plants, to identify resources and to share enthusiasm. Coincidently, these were years when computer networks and e-mails began blooming facilitating links between people with similar interests.

Gary Baker

Gary Baker, a driving force and one of the most enthusiastic of this proto-group, suggested we start a specialty orchid group of like-minded growers to promote enthusiasm and disseminate knowledge about this orchid family and to help make the plants more broadly available to anyone interested in growing them. I met Gary when he worked for The Beall Company on Vashon Island in Pugent Sound, Washington. He was already a legend of the orchid world with an encyclopedic mind. Gary fits to a tee a renaissance man, art, a fine photographer, well-read, devoted to music, both classical and opera, a published critic with a sometimes-wicked sense of humor and proficient in the use of computers. Gary Baker would eventually leave Beall's to found, with William Chantry, Baker and Chantry Orchids.

It is hard to describe the excitement of those formative years. I remember them as highlights of my life with found memories of hooking-up with friends and colleagues for shows, often camping on friends floors or sharing my home for orchid events – a tradition we continue to this day.

continued on page 27

The President's Message

This issue features the first of a series of articles by John Leathers on the creation of The Pleurothallid Alliance (the official name really is The Pleurothallid Alliance) over 25 years ago. As John notes, one of the founding aims was the dissemination of information about Pleurothallids. From the viewpoint of this far-off time, it is hard for us to realize how little information was available to our stalwart forebears. Their task was truly not just dissemination, but discovery.

The results of the seed they planted have been amazing:

• Members of the Alliance have contributed over one thousand pages of articles to this newsletter

• Hundreds of new species have been described with the Alliance continuing to support the inking of Carl Luer's drawings

• Hundreds of talks at all levels have been given by Alliance members around the world.

Never before has as much information been available to us.

The Pleurothallid Alliance

Purpose: To encourage the cultivation and appreciation of all orchids of the subtribe Pleurothallidinae; to assist in disseminating knowledge about them; to gather information about habitats; and to support horticultureal and scientific studies of pleurothallid orchids.

Officers

Joe Parker - **President**
16475 Ferris Ave.
Los Gatos, CA 95032-5611
(408) 358-2832
jandkparker@mindspring.com

Gary Meyer - **Vice President**
1919 41st Ave
San Francisco, CA 94116
(415) 225-7589
gary@colombianorchidimports.com

Lynn O'Shaughnessy- **Secretary/Treasurer**
1721 Peavy Road
Howell, MI 48843
(517) 546-8303
freespirit@pleurothallids.com

Kathy Creger - **Past President**
1637 Alabama Ave. S.
St. Louis Park, MN 55416
(952) 545-1690
goldorchid@netzero.com

Honorary Guru

Carlyle A. Luer, M.D.
3222 Old Oak Drive
Sarasota, FL 34239
cluer@juno.com

Directors

Carlo Balistrieri
Head of Horticulture
Royal Botanical Gardens
680 Plains Road West
Burlington, ON
Canada L7T 4H4
(905) 527-1158 ext. 539
(905) 577-0375 (fax)
(262) 490-6163 (cell phone U.S.)
carlobal@netzero.com

Alfonso Doucette
430 Lincoln Drive
Madison, WI 53706
(978) 317-3788
ADoucette@wisc.edu

Mario Ferrusi
1129 Cream Street, RR5
Fenwick, Ontario L0S IC0 Canada
(905) 892-4187
mferrusi@sympatico.ca

Bryon Rinke
1729 East 11th Avenue
Winfield, KS 67156-4007
(620) 221-1856
brinke@cox.net

Claire Rojohn II DVM
6041 S. 116th St.
Hales Corners, WI 53130
(414) 425-9666
CERHC@aol.com

Corresponding Directors

Rudolph Jenny
Mooseweg 9
3122 Allmendingen
Switzerland
(031) 951-6062
RJOrchid@gmx.ch

Steve Manning
New Estover
4 The Cedars
Nantwich, Cheshire CW5 5GZ U.K
44 (0) 1270 618400
orchidsmann@uwclub.net

Editor

John Leathers
2439 Woolsey Street
Berkeley, CA 94705
(510) 644-3329
jjleathers@comcast.net

The Pleurothallid Alliance News is published quarterly as the official newsletter of the Pleurothallid Alliance. Subscription is a benefit of the membership in the Pleurothallid Alliance. A one year membership (U.S., Canada and Mexico) is $18, international is $24; two year membership (U.S., Canada and Mexico) is $33, international is $45. All payments should be in U.S. funds. Contact the Secretary/Treasurer. All botanical drawings appearing in this publication are used with kind permission of Carlyle A. Luer unless otherwise noted.

We also have technology and methods of communication available to us which could not have been imagined by the Founders. The world has changed a lot in the past 25 years and The Pleurothallid Alliance has changed along with it. While not first adopters of new technology, members have stepped up when new opportunities have presented themselves. Lynn O'Shaughnessy has, for a number of years, worked long and hard to provide the Alliance with its own website full of useful Pleurothallid information. While many of our members have been active individually in the rise of social media, I am pleased to report that Gary Meyer has now set up an official Facebook page for us. It can be found by searching for "The Pleurothallid Alliance". Hopefully, it will become a rich addition to our information outlets.

To paraphrase PBS (the US Public Broadcasting System), The Pleurothallid Alliance is made up of members like you.

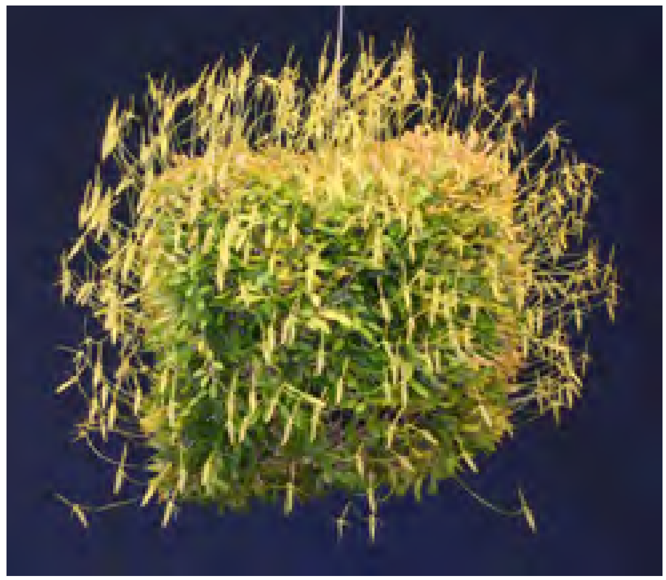
Joe Parker

In This Issue . . . .

Barbosella cogniauxiana

By Lynn O'Shaughnessy

When I was first building up my pleurothallid collection, I did a lot of trading. One of my favorite plants, which I obtained from such a trade with Woji Klikunas 13 years ago, was a small piece of *Barbosella cogniauxiana* 'Leprechaun Convention'. Maybe it was the clever clonal name that made this plant a must have or maybe it was my obsession with plants that could quickly grow to specimen size. Either way, *Barb. cogniauxiana* has lived up to all of my expectations and then some.



The year following, I received a Certificate of Cultural Excellence with a score of 92 points on this blooming. There were approximately 600 flowers.

Many barbosellas do not have showy flowers, with pale yellow being the predominant color. However, what they lack in flashy colors, they more than make up for with floriferousness and ease of culture. The flowers of *B. cogniauxiana* are a pale translucent yellow and are displayed well above the rambling foliage. When they bloom, the flowers open nearly all at once and put on a magnificent show for about a week or so. No wonder Klikunas called this cultivar 'Leprechaun Convention'.

The flower form is somewhat reminiscent of the flowers of *Restrepia* species, so it comes as no surprise that this species was originally placed in the genus *Restrepia* (Luer 2000). The main difference that eventually separated this species and others like it into the genus *Barbosella* in 1918 is the "ball

Can you say ‘Leprechaun Convention’?

and socket” feature of the connection at the base of the lip with the column foot. Although not noted as a reason to separate *Barbosella* species from *Restrepia* species, the leaves and plant habit of the two are also different.

CULTURE The leaves and rhizomes of *B. cogniauxiana* are thick and fleshy, giving it some water-retention capabilities. Because of this, *B. cogniauxiana* is somewhat drought- and heat-tolerant. In nature, this species is found at lower elevations of Argentina and Brazil where it can be quite a bit warmer. It is also humid where this species grows naturally. The ability to give *B. cogniauxiana* humidity in your growing area will give you lush new growth faster, but if you are looking for a plant that will also take the abuse of a drier environment, look no further.

Because of its rambling, creeping habit, plants of *B. cobniauxiana* need to be mounted. My ‘Leprechaun Convention’ CCE/AOS cultivar grows on tree fern, but you could probably get it to do well on just about any type of mounting material. In its natural habitat, this species would just creep along branches.

As for light, my plant grows in a brighter part of my greenhouse. The leaves are green to almost yellow. I have also seen plants grown by others with darker green leaves to indicate the possibility of less light. These plants seem to be doing just as well.

Now to the fun part. If you are into growing specimen plants like I am, you will love *B. cogniauxiana.* When I received my plant from Klikunas, it was mounted on a piece of 4” x 4” tree fern. It quickly spread out to a 6” x 6” mount, and within two years I had attached the existing mount and plant to a piece of 8” x 8” tree fern. Now, I just let it ramble and grow over itself and it completely covers the mount.

B. cogniauxiana blooms once a year...usually in the summer. There is a little work involved if you want to have a beautiful specimen plant, but it is well worth the time. I will spend about an hour or so after each blooming removing the dead flower stems so they don’t detract from next year’s flowers. I also spend a few minutes as I see the new inflorescences coming up to remove any dead or dried leaves so the plant can look its best.

A fertilizing regime is pretty simple. I use a weak solution of the Michigan State University fertilizer formula for reverse osmosis water every one to two weeks. Good quality water is a must for optimum growth and blooming.

This was the best blooming I had with *B. cogniauxiana*!

So what are you waiting for? *B. cogniauxiana* is relatively easy to obtain and grow in cultivation. As for the leprechauns, you will need to decide for yourself when you see your flowers bloom.

Photos by Bob O’Shaunessy

Reprinted from Orchids Magazine, January 2012

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Science Corner: Mushroom Madness!

By Alfonso Doucette

Dracula flowers (historically *Masdevallia* sect. *Saccilabiatae*) were considered to be so fantastic when they were first seen in Europe that the orchid taxonomist Reichenbach (1872) wrote: "I cannot remember to have ever been more astonished than when I obtained this remarkable flower … Such a *Masdevallia* not to be satisfied with its hairy ornaments, but to deprive old *Cypripedia* and *Cataseta* of their prestige, that of having a slipper in lieu of a tongue!".

photo by Moises Behar

Tree fungus, very similar to the lip of a Dracula

Upon close inspection, the slipper-like lip is covered by low radiating crests, similar to the gills of a mushroom, and if you were to take a whiff of a flower at the right time of day, you would notice a fungal odor! The fragrance profile of Dracula flowers is dominated by the same chemical compounds emitted by mushrooms (Kaiser 2006). These tactile and olfactory cues are used by the flowers to attract pollinators that visit mushrooms.

Mushrooms are an ephemeral resource that many insects utilize in order to meet other insects, lay their eggs, and hide from predators. These same insects have been found to be attracted to Dracula flowers for those very reasons. For example, fungus flies spend most of their time hanging around on mushrooms and use them as a rendezvous site to meet mates, lay eggs, and graze on microbes and fungal secretions. In 2010, fungal flies in the genus Zygotricha (relatives of the Drosophila fruit fly) were found to retrieve and deposit pollinia from Dracula flowers (Endara et al. 2010). The flies will often congregate on the lip of Dracula flowers where males will display to females, lap up floral yeasts that grow on the labellum, and lay eggs (Policha et al. 2014). Pollination occurs when an individual creeps towards the back of the flower. A hinge allows for the lip to shift closer and closer to the column until the pollinator is trapped! The pollinator must force its way out past the female portion of the flower where it will deposit pollinia, if it has any, or be coated in a sticky glue to receive a pollinarium from the male portion of the flower.

photo by Moises Behar

The lip of Dracula vampira covered with fruit flies

Smith (1875) was on to something when he wrote in the Gardeners' Chronicle that *Dracula* species are "like certain sounds, odours, colours, and persons familiar to all thinking people, disagreeable in themselves, yet possessing irresistible hidden attractions to which one is ever bound to return."

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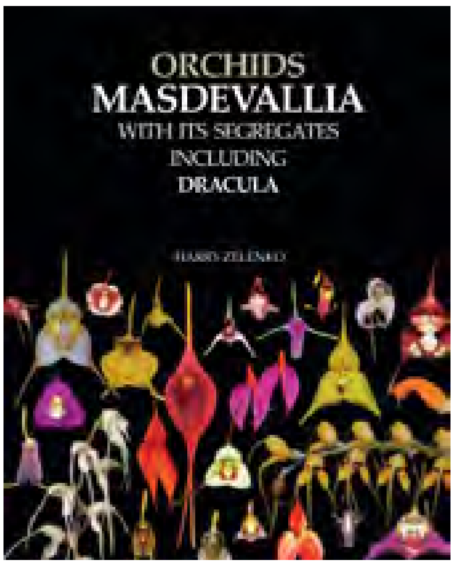
New publication: Masdevallia and its Segregates Including Dracula

by Gary Meyer

For the past several years, Harry Zelenko of Cumbaya, Ecuador has been working on a book to catalog every Masdevallia species (or at least as many as possible that have been photographed), as well as anything that used to be a Masdevallia at some point in history, including Dracula, Porroglossum, and Trisetella. This book is similar in concept and size to his Orchids: Species of Peru book; that is, primarily a photographic documentation of the genera covered. Many people associated with the Alliance have provided photos and essays for the new book. Additionally, I and Alfonso Doucette have been working with Harry to edit and verify identifications. The book has just been printed and will be available for delivery shortly. Pleurothallid Alliance members are being offered the special price of $98 for the book. The book will otherwise retail for $140 on Amazon. Thus, becoming a member of the PA to acquire the book at a discount is cheaper than buying the book on the open market (tell your friends!). In order to take advantage of the special pricing, members must order by contacting me, Gary Meyer, at gary@colombianorchidimports.com. (Be sure you spell my horribly long e-mail address correctly.) I can supply example pages via .pdf if interested. The discounted supply is limited, and when they are gone, they are gone.



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continued from page 21

Sadly, Gary is no longer with us. He died of a heart attack at the age of 42 in 2009, a tragic loss.

As a founding member of the Pleurothallid Alliance, I've preserved my correspondence with Gary. Since last October was the 25th anniversary of that seminal correspondence, I thought now a perfect time to reprint the original letters Gary sent to potential members. I remember many discussions about beginning The Pleurothallid Alliance over a glass of wine, or was that 2 or 3, or perhaps more?

We've grown! I hope you enjoy reading the following letters knowing you are now part of this exciting history. Also, take notice that from the onset, Gary is seeking articles from the membership. So am I! Some thing's never change.

MASDEVALLIA-PLEUROTHALLID

U*P*D*A*T*E

October 1988

This "Update" is going out to everyone who responded to my mailings about a proposed association of persons interested in masdevallias and other pleurothallids.

Responses to the first mailings exceeded all my wildest hopes. Clearly there is a significant number of people who see a need for a group uniting lovers of these choice New World orchids. Over 80 people in some 15 states, several Canadian provinces and a few people in other countries returned the questionnaires I sent out. I am extremely pleased with the responses.

Over half those responding to the initial mailing indicated a willingness to write articles should a decision be made to issue a newsletter. I find that absolutely mindboggling. By far, the majority of potential authors indicated an interest in writing about collecting! That I find especially exciting, since no two collectors have the same experiences. Ten people collecting the same species in the same area at the same time will have 10 different experiences and perspectives...and 10 different stories to tell. Other topics have also been suggested. Once a newsletter is established, you can be certain every one of those potential journalists will be hit up for an article (or two or three...).

Now our target is the EOC-AOS meetings in Meadowlands, New Jersey, where organizational steps will be taken that will set up the "alliance" on a permanent basis. I have had several long discussions with Wayne Cokeley of New Jersey about the group, its make-up and goals. Wayne was the author of that wonderful article about restrepias in a recent AOS Bulletin, which I am certain all of you enjoyed.

It is our consensus that a newsletter is critical, and a potential editor is under consideration. Several other people will be needed to run the organization, obviously, and this will be discussed in Meadowlands.

It seems reasonable that the following are positions which might be needed for the group to function effectively: president (or some such position), recording secretary, membership secretary, treasurer and editor. It is possible that certain other positions will need to be created. These could include historian and conservation coordinator. Others might be suggested at Meadowlands. It is possible that one person might fill more than one of these positions, especially in the first year or two.

One of the matters discussed in Seattle at our informal meeting last spring was the necessity of making any national/international organization geographically diverse in the makeup of its officers. There was a distinct feeling that the people involved in running the alliance must come from different regions so as not to have this become an association run by one region. Thus it makes sense that those chosen in Meadowlands to head up the first year of the group come from different geographical areas.

By the way, the organizational meeting will follow the Pleurothallid Breakfast on Sunday morning at the meetings. Wayne tells me that the number of people signed up for the breakfast is currently over 5 dozen! We will conclude the organizational meeting in time for us all to hear wonderful talks by Dave Allison, Wayne Cokeley, Theresa Hill, Walter Teague and Marguerite Webb.

Should you not have sent in registration papers yet, I urge you to not miss this remarkable show! It will be a long time before we see such a remarkable assemblage of pleurothallids and people enthusiastic about them gathered in one spot.

It is critical that a newsletter be issued periodically, perhaps as frequently as quarterly. The availability of material will influence the frequency, naturally. Many topics can go into the newsletter, from collecting stories, to cultural hints, cultural queries, hybridization notes, reports of shows, accounts of awards, taxonomic accounts, results of research and other observations...there is almost no limit to what could be put into the newsletter as long as people are willing to commit their thoughts and findings to paper.

As an example, I am reminded of some of the conversations I had recently with Wayne Cokeley regarding the flowering of certain Masdevallia species. We were discussing Masd. coccinea and he asked me how I flowered the species after I mentioned that I have flowers on various clones 12 months of the year. I almost never am without at least one or two flowers on at least one of the numerous clones I have. He responded that it was difficult to flower the species in New Jersey. Here is an area where we could really benefit from grower input. How do people get such species to flower in different regions? Which species will grow well in what areas? Also, how about reports on what people use for potting media? What works in different areas? Are certain media more successful in warmer or drier climates than others? Conversely, how about media in cold or wet climates? Obviously, the cultural topics are as unlimited as people's imaginations!

I would hope that we can have people in different judging regions send in reports of any and all awarded pleurothallids. It would be especially nice to have descriptions of awarded colorful, spectacular species and hybrids. What sorts of hybrids are meeting the approval of judges? It would be especially informative to keep close tabs on plants which are getting quality awards.

Also, with all the new *Masdevallia* hybrids flowering, it could be useful to have accounts of these as they bloom. What do the hybrids look like? Can any conclusions be drawn regarding breeding influences of various species and hybrids? Etc. Perhaps those of us breeding masdevallias could share our findings with others. For instance, I would dearly love to know why it is so difficult to get Masd. coccinea tc hold seed pods to maturity? I have tried to set a number of sibling crosses in this species, and most seed pods seem to drop at about 70 days, with virtually no evidence of seed in them! WHY? Why is this species such a difficulty. This year, I got six (6) crosses between different xanthina forms of the species to successfully produce seed pods. Of these six, five dropped at approximately 70 days, while I was able to harvest one at about 85 days. The seed pods which aborted proved to be seemingly empty of any seeds. Why should a species be so difficult to raise from seed? What experience do others have with this species?

One thought which comes to mind is the potential for regional subgroups within the alliance: Pacific Northwest, Bay Area, Southern coastal California, etc. Such subgroups might hold occasional (annual??) get-togethers, exhibit in shows together to put on more impressive displays of pleurothallids, etc. It could be a valuable way to increase interest in pleurothallids. It also seems essential that the "alliance" must hold yearly get-togethers. I would think that such annual meetings would be held in conjunction with some show, with the location of those meetings rotating around different regions which have members in the alliance* It seems reasonable to anticipate that the annual meetings would be organized by the "host" society of that year.

It is with great sadness that I acknowledge the death of Leslie Stern earlier this year. I had just come to know this remarkable man last September, when he approached me with the concept of a Masdevallia Alliance. He asked me to spearhead the formation of such a group, and I agreed. His encouragement and ideas will be sorely missed. How I wish I had met him years earlier! Our friendship was far too brief.

I am including in this Update some of the results from the questionnaires which I received back when people let me know of their interest in a pleurothallid society. I hope the information gleaned from those questionnaires is of some interest and help as we approach the organizational meeting in Meadowlands, NJ. It suggests areas of interest for whoever is in charge of the newsletter.

81 persons responded to my mailings about a pleurothallid alliance. In addition to people in 19 or 20 states, we have responses from people in four Canadian provinces, Australia and Sweden.

Not all the people who expressed interest in our potential group returned questionnaires, however. Nevertheless, of those who responded with a questionnaire, I tabulated (with not TOO many mistakes, I trust):

67 people who expressed interest in MASDEVALLIAS

51 people who expressed interest in ALL PLEUROTHALLIDS

24 people who expressed interest in OTHER PLEUROTHALLIDS

(most of these marked one or both of the above) 56 people expressed interest in BOTH SPECIES AND HYBRIDS 18 people expressed interest ONLY IN SPECIES.

Several of the people who indicated interest in species only stated they had a limited interest in hybrids. However, most of this group indicated <u>no</u> interest in hybrids. Thus we see that nearly a quarter of those who responded expressed little or no interest in hybrids. Whoever heads up the newsletter will need to keep that in mind so that these people don't feel overwhelmed by hybrid information, to the wxclusion of material about species. Conversely, since over 2\3 of those who returned a quaestionnaire noted an interest in both species and hybrids, it is essential that we cover hybrid developments in the newsletter.

Other genera mentioned by the respondents were:

Restrepia -- 16 times (and this was <u>before</u> Wayne Cokeley's article),

Dracula, *Lepanthes* and *Pleurothallis* -- 6 times each (here are 6 of the 10 people Phil Jesup figured would be interested in a *Lepanthes* society...7 including me!), *Scaphosepalum*, *Stelis* and *Trisetella* -- 4 times each, *Platystele* -- 2 times (I thought I was the only person who liked these diminutive critters), *Barbosella*, *Dryadella*, *Lepanthopsis*, *Octomeria*, *Porroglossum*, *Telepogon* (well, they are a natural for us!) and warmth-tolerant types -- 1 time each.

So there you have an idea of our interests. By far, the greatest interest is in Masdevallia, especially when one considers that many of the people who didn't check Masdevallia as an interest DID check the ALL PLEUROTHALLIDS, and that includes masdevallias. In fact, only a couple people marked their questionnaires so that it was clear they had little or no interest in masdevallias.

So we can see, for the most part, that our fledgling group has a very diverse and broad interest in pleurothallids of all kinds. I guess the sky's the limit as far as newsletter articles and information go.

Quite frankly, I was surprised at how many of the less frequently seen genera were named by genus. It says something about the sophistication of our group.

I am certain that the one person who suggested an interest in heat-tolerant types is not alone in that regard. This is an area wherein I would hope all of us can contribute information. It is a matter which should be addressed in articles about species and where they can be grown as well as papers discussing those newer hybrids (and crosses not yet introduced) which combine warmth-tolerant parents with parents which demand more rigid coolness.

There were a few suggestions penned on the backs of the questionnaires. Herewith are the suggestions, some of which are duplications of things appearing in the first Update.

1. Articles on culture,
2. Sources of specialized media,
3. Sources of unusual species,
4. Division and/or seedling exchange -- mentioned three times,
5. Sales column -- mentioned twice,
6. Membership listing, possibly with a listing of specialties,
7. References for articles in out-of-the-norm journals -a splendid suggestion, in my opinion!!!,
8. Computerized record of awards,
9. An offer of supporting art work and graphics by an artist. (This was communicated to me verbally by a fine local artist).

The "H" Word (Hybrid)

Some first bloom hybrid seedlings

Masd Elena Servi (*M*. MacInnes Golden Heart x *M*. Red Flamingo)

Drcvla unnamed hybrid (*M.* MacInnes Golden Heart x *D. gorgona xanthina* 'Colomborquidea')

Masd unnaned hybrid (*M*. Kimballiana x *M*. Charisma)

Masd Ligia Posada (*M*. John Leathers x *M*. Bay Breeze)

Masd Natasha (*M*. Tourmaline x *M*. Bay Breeze)

Pleurothallid News and Views

The Official Publication of The Pleurothallid Alliance

Visit our website at - www.pleurothallids.com

Winter 2013 Volume XXIV Number 4

Pleurothallid Alliance Beginnings - Part II

by John Leathers

continued from P A Newsletter Volume XXIV Number 3

Masdevallia-Pleurothallid Alliance Meeting, NWOS Show, 1988

On Saturday, January 30, approximately two dozen people gathered in Seattle for the first informal get-together of the "Masdevallia-Pleurothallid Alliance". Present were individuals from three states as well as British Columbia. During the meeting, individuals expressed their ideas and hopes for the future of the group. Some of the ideas suggested are summarized very briefly below.

Dave Allison: Focus on reference library for newly discovered species or species not well known. Need some sort of assistance in identification of plants.

Diana Burritt: Need to gather cultural information. Judy Barrick: Classified ad section in newsletter.

Steve Skoien: Need a list of orchid shows in which pleurothallids will be an important component. How to keep draculas fresh in shows?

Allen Clark: Need for classification breakdown in show schedules. (This is a real concern in the Pacific Northwest where we have yet to come up with a reasonable breakdown of pleurothallilds for shows... gb)

Richard Proctor: Newsletter quarterly at most.

Steve Skoien: Strong regional groups with a loose International network.

Bruce Cobbledick: Odm. Alliance has weekend at San Francisco Conservatory, with three tables. Ideas might be useable by other societies.

continued on page 37

The President's Message

An odd juxtaposition struck me while reviewing the contents of this issue of the newsletter. On the one hand, we have John Leathers' continuing saga of the formation of The Pleurothallid Alliance some 25 years ago. On the other hand, we have mention of the passing of two of our members, Walter Teague and Gerardus Staal, who were each involved with pleurothallids for an even longer time. It is well and proper that we should recognize and celebrate the long and successful history of the Alliance. However, we also need to remember that we are losing more and more of our early members. It is important that we all take time to both thank them and make sure that their tales of adventure in the early days are not forgotten.

This brings me to another oddity I noticed in the "In This Issue" section on the next page. All of the articles in this issue of the newsletter are by one "John Leathers". I don't think this has ever happened in the history of the Alliance. Obviously, no one has been paying attention to my pleading for new authors. So, if no one was paying attention, then no one will notice if I repeat myself :-)

How many times in your life have you been reminded that you get out of any activity only in proportion to what you are willing to invest? This is true, too, of this newsletter. We need your fresh ideas, your

The Pleurothallid Alliance

Purpose: To encourage the cultivation and appreciation of all orchids of the subtribe Pleurothallidinae; to assist in disseminating knowledge about them; to gather information about habitats; and to support horticultureal and scientific studies of pleurothallid orchids.

Officers

Joe Parker - **President**
16475 Ferris Ave.
Los Gatos, CA 95032-5611
(408) 358-2832
jandkparker@mindspring.com

Gary Meyer - **Vice President**
1919 41st Ave
San Francisco, CA 94116
(415) 225-7589
gary@colombianorchidimports.com

Lynn O'Shaughnessy- **Secretary/Treasurer**
1721 Peavy Road
Howell, MI 48843
(517) 546-8303
freespirit@pleurothallids.com

Kathy Creger - **Past President**
1637 Alabama Ave. S.
St. Louis Park, MN 55416
(952) 545-1690
goldorchid@netzero.com

Honorary Guru

Carlyle A. Luer, M.D.
3222 Old Oak Drive
Sarasota, FL 34239
cluer@juno.com

Directors

Carlo Balistrieri
Head of Horticulture
Royal Botanical Gardens
680 Plains Road West
Burlington, ON
Canada L7T 4H4
(905) 527-1158 ext. 539
(905) 577-0375 (fax)
(262) 490-6163 (cell phone U.S.)
carlobal@netzero.com

Alfonso Doucette
430 Lincoln Drive
Madison, WI 53706
(978) 317-3788
ADoucette@wisc.edu

Mario Ferrusi
1129 Cream Street, RR5
Fenwick, Ontario L0S IC0 Canada
(905) 892-4187
mferrusi@sympatico.ca

Bryon Rinke
1729 East 11th Avenue
Winfield, KS 67156-4007
(620) 221-1856
brinke@cox.net

Claire Rojohn II DVM
6041 S. 116th St.
Hales Corners, WI 53130
(414) 425-9666
CERHC@aol.com

Corresponding Directors

Rudolph Jenny
Mooseweg 9
3122 Allmendingen
Switzerland
(031) 951-6062
RJOrchid@gmx.ch

Steve Manning
New Estover
4 The Cedars
Nantwich, Cheshire CW5 5GZ U.K
44 (0) 1270 618400
orchidsmann@uwclub.net

Editor

John Leathers
2439 Woolsey Street
Berkeley, CA 94705
(510) 644-3329
jjleathers@comcast.net

The Pleurothallid Alliance News is published quarterly as the official newsletter of the Pleurothallid Alliance. Subscription is a benefit of the membership in the Pleurothallid Alliance. A one year membership (U.S., Canada and Mexico) is $18, international is $24; two year membership (U.S., Canada and Mexico) is $33, international is $45. All payments should be in U.S. funds. Contact the Secretary/Treasurer. All botanical drawings appearing in this publication are used with kind permission of Carlyle A. Luer unless otherwise noted.

expertise and your experience. This newsletter will succeed only if Pleurothallid Alliance members are willing to document and share their knowledge, either through articles you write and submit, ideas for articles by your friends, or working with us to develop an idea into a printed resource. We are limited only by our collective knowledge, curiosity, imagination, and willingness to experiment. The PA News & Views will continue to be, we hope, truly and literally a publication by and for Pleurothallid fanatics.

Joe Parker

In This Issue . . . .

Save the trees for the Forest!

Save the trees for the forest and receive your newsletter by email! Not only will this reduce your carbon footprint (and help to save the environment), but you will be able to view all images in color, not just the ones in the center spread. If you wish to do so, contact the editor at jjleathers@comcast.net; the printed newsletter will still be sent out to anyone wishing to receive it.

It's renewal time!

Check your mailing label to see if your dues are due. If your dues expire in 2014, you should have a renewal form included with this newsletter. If you are an e-newsletter member, you will receive a renewal notice by mail. You can now renew by PayPal by going to the website at www.pleurothallids.com and look under the "Membership" tab then click on "Renew". Send your dues in soon so you don't miss an issue!

Walter Teague - The Passing of One of the Great Ones

by John Leathers

12/28/25 - 10/15/13

Walter Calvin Teague, 87, of San Francisco, California, died October 15, 2013 at an assisted living facility in Daly City, California. Walter was born December 28, 1925 in Guayaquil, Ecuador, to Logan and Laura Crowe Teague. Walter's father, mother, and two brothers preceded him in death. He is survived by his sister, Alice Badia of Placentia, CA and her children.

Walter Teague

Walter was educated at the Ecuador German School, was multi-lingual and could speak fluent Spanish, German, and English. He moved to Los Angeles when 18 to attend university at UCLA. In 1950, Walter moved to San Diego and began his career as a purser in the airline industry. He later took a job with Pan Am and moved to New York City in 1952 for 4 years. His work took him all over the world. In the late 1950's, Walter moved to his beloved San Francisco, where he spent the rest of his life.

Walter was an accomplished nature photographer and his joy was plants. Over the course of his life, Walter was responsible for the discovery and identification of more than 150 Andean orchid species many of which bear his name. Many of these are spectacular. Walter was fascinated with high elevation cloud forest orchids and was recognized as an international expert. Because his work allowed him to travel internationally, Walter was able to explore the most remote regions of the earth and document his discoveries. He was an avid climber.

Walter Teague was active in several San Francisco horticultural societies and exhibitions. He was also an avid bicyclist and participated in many tours. He loved to read and enjoyed a wide variety of music and opera. He was a regular patron of the San Francisco Symphony and attended most of the legendary rock concerts during the 1960's and 1970's as well.

I am fortunate to say that Walter was a good friend. When I joined the San Francisco Orchid Society in the mid 1970's, Walter was an icon at those meetings. He had incredible knowledge of orchids; especially cool growers from South America.

It wasn't long before we became friends. Walter not only shared his knowledge, he shared plants from his extensive Pleurothallid collection.

In 1991 Walter invited Steve Beckendorf, Robert Hamilton, Moises Behar of Guatemala and I to travel to Ecuador with him to explore the habitats of cool growing orchids. It was an incredible opportunity. Our first day out we went to a forest north of Quito, on the volcano Pinchincha, with a few principals of the Quito Orchid Society. An abundance of orchids grew on the trees a short trek from the road. I told Walter if we saw nothing else the whole trip, that day was burned in my memory as one of the most exciting orchid events of my life.


The "Guardian of the Forest" holding the plant that would become Pleurothallis teaguei

On this trip we went exploring for Lepanthes lucifer, a recent discovery of the indefatigable Alex Hirtz of Quito. After a couple of days of exploring we could not find the location of the solitary tree Hirtz gave us directions to; however, on a side trip we made the exciting discovery of a new and spectacular plant, Pleurothallis teaguei.

Since that first trip we travelled many times with Walter to Central and South America. I still cultivate plants that Walter gave me over the course of our friendship. When I come across one of his plants when I am repotting or just putzing in the greenhouse it brings back wonderful memories of Walter and our adventures. For those of you who knew him, you'll know what I mean. I continue to laugh through tears. Walter Teague was one of the greats.


Close up of the very unusual flowers

Trisetella hoeijeri

by John Leathers

This spectacular little species was first discovered by the team of Hoijer and Dalstrom in 1986 in a remote cloud forest above a tiny village north of Gualaquiza in the Oriente of Ecuador at an altitude of 1800 meters. Although in habit not unlike many of the other species of the genus, the flower of *T. hoeijeri* is unique. The lateral sepals are oblong, free and widely spread, and the color is silvery white with three thin, red lines on each. The habit of a flowering plant is reminiscent of *Masdevallia picturata* Rchb. f.


Trisetella hoeijeri

Dave Allison: Will Meadowlands talks be videoed or transcribed?

Someone, I missed who: need to build a slide library.

Judy Barrick: Will we have a way to purchase duplicate slides?

Theresa Hill: Keep a list of what is awarded; keep track of who is breeding what. (my thought: might we consider keeping a record of who has what outstanding clones? Would people be willing to share information on superior things in their collections??? I don't pretend to know the answer to that...gb)

Tom Lyczko: Idea for Masdevallia Havens logo and motto: "Masdevallia Mavens Making Merry Miscellaneous Masdevallia Madness." (I promised him I'd leave this in...gb)

Ideas for a Masd-Pleuro Alliance...

When the concept of a Masdevallia-Pleurothallid group first was presented to me by Leslie Stern, I jotted down some thoughts about what the goals and activities of such a organization might encompass. In no way is this intended to be a complete list of possibilities, and as the meeting in Seattle shows, there are many other possible parameters to such a group beyond what I first envisioned.

September 28, 1988: I have decided to sent this list of ideas out with the "UPDATE" to give those of you attending the organizational meeting in New Jersey some ideas to ponder. These thoughts were committed to my computer in February, so some of them may seen rather dated or are addressed elsewhere.

Countless questions pose themselves. The first ones to come to mind were:

1. Should we attempt a newsletter? If so, who would be willing to submit articles or short papers?

2. Should we just have meetings (with talks) yearly, every other year, or ....?

3. Does it make sense to have one national alliance that would meet in different regions (Pacific NW, California, Upper Midwest, Upper Atlantic States-New England), try to form a separate group in each region, or produce something intermediate between these two possibilities?

4. If we did create a national group, how many people would be willing to travel outside their regions to attend a meeting?

Further thinking generated the following list of horticultural and scientific ideas.

Horticultural/Conservation ideas:

1. Newsletter

2. Bibliography of articles, books 3. List of illustrations in books, articles, ads, etc.

4. Cultural information, such as...

    a. media

    b. types of containers

    c. temperature

        ....what various species and hybrids tolerate .... which can endure extremes of heat, cold?

    d. water requirements, summer and winter

    e. light under different parameters

    f. etc.

5. Records of blooming dates of both species and hybrids...

    a. variation in different climates

    b. differences between different clones of same taxa

6. Hybridization results...

    a. variation within hybrids

    b. influence of different parents/clones

    c. who is doing what

    d. why hybridizers are using particular clones and taxa

    e. hints on flasking...media, light, temperature,whatever

7. Lists of who has what. That is, where selected (especially awarded) clones can be found. Sort of a registry of especially valuable things.

8. Pollen bank/trading

9. Record of awards. Perhaps permission could be gotten to reprint awards descriptions (?)

10. Coordinate displays in shows as a group

11. Keep update on new hybridization efforts

12. Meetings, in conjunction with shows, with talks

Scientific Possibilities:

Here I think less of things WE might do as providing encouragement for botanists involved in research:

1. Pool of plants for anyone interested in research into

    a. chromosome numbers

    b. variation within species

    c. pigments

    d. inheritance

    e. viral studies e. tissue culture attempts

    f. etc., etc., etc.

2. Systematic studies

    a. new species

    b. continued fine tuning of classification

    c. continuing evaluation of species..

        ...nomenclature and synonymy

...more precise and accurate specific limits/boundaries 3. Pollinators

4. Floristic/distribution studies

5. Phylogenetic studies

6. Virus studies

7. Bacterial/fungal problems

8. Ecological studies

9. Support efforts such as Thesaurus Masdevallorum and Icones Pleurothallidinarum

10. Support graduate students who wish to undertake generic revis ions

11. Support Carlyle Luer (!!!) in all his undertakings, as well as support others who are working on the group

12. Support for AOS Research funds for Pleurothallid research

The "H" Word (Hybrid)

One of our founding members, Gerardus Staal, recently passed away. Among his many contributions to the Pleurothallid Alliance are an enormous number, over100, of registered Pleurothallis hybrids. One of our West Coast members, Chris Ehrler, has suggested featuring photos of some of Gerardus's hybrids. If any members are growing any of Gerardus's hybrids, please photograph them and send them to the editor, jjleathers@comcast.net to have them included in the newsletter. Below are but a small sampling of his accomplishments.

Photo by Chris Ehrler

(*Porroglossum muscosum* x *Masdevallia hercules*) unregistered hybrid made by Gerardus. Close up of flower

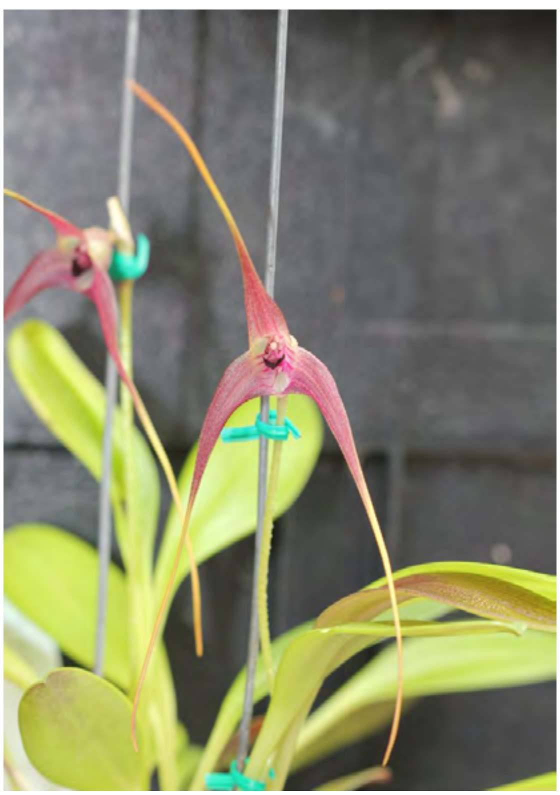

Photo by Chris Ehrler

(*Porroglossum muscosum* x *Masdevallia hercules*) unregistered hybrid made by Gerardus. Photo of entire flower

Photo by Chris Ehrler

(*Masdevallia* Paul Martinod x *Masdevallia* Southern Star) unregistered hybrid made by Gerardus.

Photo by Chris Ehrler

(*Trisetella andreetana* x *Trisetella hoeijeri*) unregistered hybrid made by Gerardus.