



The Atlanta Orchid Society Bulletin

The Atlanta Orchid Society is affiliated with the American Orchid Society, the Orchid Digest Corporation and the Mid-America Orchid Congress.



Newsletter Editor: **Danny Lentz**

April 2007

www.AtlantaOrchidSociety.org

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APRIL EVENTS

AtLOS Annual Orchid Auction:

Sunday, April 22

**Lunch begins at 11:30, Auction begins at 1:00
at American Legion Post 140 near Chastain Park**

Our auction is always a great place to pick up some interesting plants. The festivities will begin at 11:30 with a pot-luck luncheon, followed by a fun afternoon of buying orchids. For details and directions please see page 4.

The Monthly Meeting:

Speaker: Tom Harper (Stones River Orchids)

Topic: Breeding Red Phalaenopsis

8:00pm Monday, April 9

at the Atlanta Botanical Garden, Day Hall

Tom Harper began growing orchids on a windowsill in 1967. That year he became active in the Orchid Society of Middle Tennessee, where he has been a member ever since, holding various offices. By 1975 Tom was registering his first orchid hybrid and starting his business, Stones River Orchids. In 1984 Tom became an accredited AOS judge. Since then he has been busy with a variety of orchid activities: holding various offices in the Mid-America Orchid Congress (former president, vice-president, newsletter editor) and the International Phalaenopsis Alliance (where he was a founding member and has been president, vice-president); writing articles on phalaenopsis for magazines such as Orchids (AOS bulletin), Orchid Digest, and the IPA journal; giving talks to orchid societies and speaking at international shows such as the 16th World Orchid Conference in Rio de Janeiro in 1996 and the Taiwan International Orchid Show in 2005; and devoting himself full-time to his orchid business since retiring in 2002.

Please remember to have your entries for ribbon judging in place by 7:50.

Greengrowers:

Saturday, April 7

Location: David Mellard & Sal Marino's house

Time: 10:00-1:00

Come see David's many rare and unusual plants, both in his greenhouse and throughout his yard. For directions please see page 14.

Saturday, May 5

Location: Gary Collier & Mark Reinke's house

Time: 12:00pm

Come see Mark & Gary's large greenhouse on a beautiful piece of property in Walhalla, SC. This is a little farther than most of our trips, so you may want to carpool. For more details please see page 5.



Dtps. Brother Bloody Mary

Page

Inside This Issue

- 2..... AtLOS Officers
Member Spotlight: David & Angel Johnston
- 3..... Events Out and About, Dates for your Calendar
Minutes of the February AtLOS Meeting
New AtLOS Members
- 4..... AtLOS Auction – April 22
- 5..... May Greengrowers
- 6-9... February Exhibition Table
- 9-11... Collection Solar Heat at Marble Branch Farms
- 12..... Recent Awards at the Atlanta Judging Center
- 13..... Recent Blooms at the Atlanta Botanical Garden
- 14..... Directions for April 7 Greengrowers

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Member Spotlight David & Angel Johnston



David Johnston has been growing orchids for over 35 years and has been hybridizing orchids for 20 plus years. David graduated in Botany and Horticulture from Iowa State University. He served as director of the ISU Botany and Plant Pathology Research and Teaching Greenhouses for several years and then decided to venture out on his own as Jewell Orchids.

David and Angel were members of the Central Iowa Orchid Society for almost 30 years and David spent a number of those years as

president and also served in other elected offices. As in any good relationship, Angel supported him in these endeavors and catered special events such as Speakers Day and orchid shows. David has a great interest in educating orchid growers and developing their skills in growing orchids.

David enjoys the outdoors and has spent time exploring orchids in their natural habitat through many places in the United States as well as Belize and Puerto Rico.

Dave and Angel have two daughters, Leah and Marcella, who have grown up in the business. They started attending orchid events before they could even walk. Both Leah and Marcella enjoy helping in the greenhouse from breeding to lab work.

In 2003 David and his wife, Angel, moved their business from Iowa to Georgia to enjoy a milder climate.

Orchid lover downsizing

14x22 foot greenhouse full of orchids - will sell as they bloom; call or email for what is available at any given time; Paphs (Prime Child, Illinois, lowii x topperi, etc.), Phaius, a Lycaste and a few Onc. hybrids available now, large part of collection is Paphs. \$25 up.

Also available:

- o Orchid books including *The Genus Paphiopedilum* by Cribb, *The Slipper Orchids* by Cash, *The Slipper Orchids* by Hennesy & Hedge, *Paphiopedilum in Taiwan I*, *A Masdevallia Cultural Guide* by William Rhodehamel, *Intriguing Masdevallias* by Kelleher, *Lycaste Species: the Essential Guide* by Oakeley, and many others.
- o Fitch Orchid Album original botanical orchid lithographs
- o old botanical prints with orchids and hummingbirds
- o Miscellaneous growing supplies

Email for list. Linda Wish 404-252-5872, orchidwish@comcast.net

Events Out and About

April

April 7 (Saturday) Greengrowers at David Mellard & Sal Marino's house. 10:00-1:00. Directions on page 14.

Monday, 4/9 Atlanta Orchid Society monthly meeting, ABG, Day Hall, 8 p.m. Tom Harper will speak on the development of red Phalaenopsis.

Saturday, 4/14 American Orchid Society monthly judging, Atlanta Judging Center, 2 pm, ABG basement workshop.

4/13-15 *Deep South Orchid Society Show* Savannah, GA

4/21-22 *Smoky Mtn. Orchid Society Show* Knoxville, TN

Sunday, 4/22 Atlanta Orchid Society Auction. See page 4 for details.

April 27-29 MAOC meeting in Chicago
www.midamericanorchids.org

May

May 2-6 AOS Members Meeting in Arlington, TX

May 5 (Saturday) Greengrowers at Gary Collier & Mark Reinke's house. See details on page 5.

Saturday, 5/12 American Orchid Society monthly judging, Atlanta Judging Center, 2 pm, ABG basement workshop.

Monday, 5/14 Atlanta Orchid Society monthly meeting, ABG, Day Hall, 8 p.m. Jeff Whitfield will speak on growing the nobile type dendrobiums.

5/18-20 *Memphis Orchid Society Show* Memphis, TN

5/18-20 *Redland International Orchid Festival* Homestead, FL
<http://redlandorchidfestival.org>

Welcome to our New Members:

David & Angel Johnston (Jewell Orchids) –
Colbert, GA
Zetra Reese – Buford
Joan Snow – Marietta

Minutes of the March 12th Meeting

- o The Atlanta Orchid Society Meeting was brought to order by President Mark Reinke. Three new members were welcomed.
- o The minutes from the last meeting were approved as printed in the newsletter.
- o 2007 dues must be paid by March 31st in order for members' names to be published in this year's directory.
- o This year's annual AtLOS orchid auction will be held on April 22nd at the American Legion Post 140 off of Powers Ferry Road. This is a fundraiser for the society and most of the plants are acquired from orchid vendors.
- o Roy Harrow's auction, where people bring their own plants to sell, will be held on July 28th.
- o Members were reminded of the Green Growers visit to David Mellard's home on April 7th. The following month, the visit will be to Marble Branch Farms in Walhalla, SC, with hosts Mark Reinke and Gary Collier.
- o The speaker was Carson Whitlow of Cyp. Haven of Adel, Iowa. He gave an interesting presentation on cypripediums.
- o Our thanks to the orchid judges: James Van Horne, David Mellard, John O'Connell, Jeff Whitfield, Jeff Potter and David Kessler.
- o Our thanks to those who donated plants to the raffle table: David Johnston, David Tillis, Roy Harrow, Helen Weil, and others.
- o Our thanks to those who provided refreshments: Carolyn & Mike Dufano, Sandy Phillips, Mary Helen Reinhard, and others.
- o The meeting was adjourned.

Respectfully submitted,
Carl Quattlebaum



The AtLOS exhibit at the recent Heart of Dixie Orchid Society show in Madison, AL won the AOS show trophy. Congratulations and thanks to David Mellard for setting up the display.

**Atlanta Orchid Society Auction
Sunday April 22
(This event is open to the public)**

Auction starts at 1:00

As we have announced, the club auction is on Sunday the 22nd of April. The location is The American Legion Post # 140 located at 3905 Powers Ferry Road.

Plan to arrive about noon if you want to eat before the auction and if you are eating there, please bring something to add to the mix for lunch. We will make every effort to have as wide a cross section of plants as possible ranging from the standards to the more exotic. There should be something for every taste and we will do our best to give you as good an idea as possible of what the blooming will look like. If anyone has questions or is lost on the way there, my cell # is 404 401-4890. We will



Epidendrum stamfordianum is one of the fine plants we've purchased at previous auctions.

look forward to a big turnout as this is an excellent opportunity to share a fun time with everybody and pick up great orchid plants at the same time. We always get comments back that past attendees have received AOS awards on plants purchased at the auction.

-Fred Missbach.

Directions to the Auction:

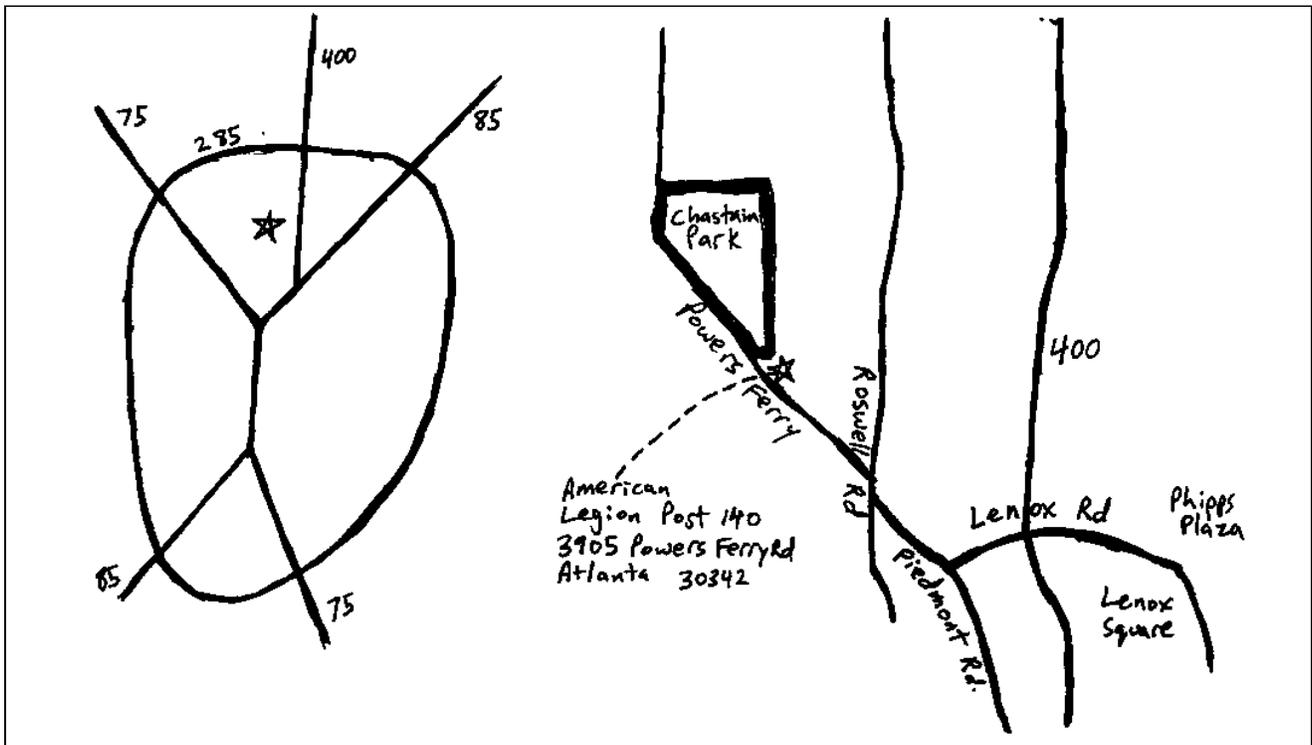
**American Legion Post 140
3905 Powers Ferry Rd.
Atlanta, GA 30342**

If you are traveling north on Piedmont Road, continue north on Roswell Road after Piedmont Road ends at Roswell Road. Get into the left lane and Powers Ferry is on the left about 300 yards north of the end of Piedmont. You will travel about 1.5-2 miles and then turn right into the legion post, which is at the edge of the Chastain golf course.

From GA 400 South:
Exit at Lenox and go right. Turn right on Piedmont Rd and go north. Follow directions above.

From I75:
Take I75 to I285 to Roswell Rd. Go south (inside the Perimeter) to Powers Ferry Rd. Turn right. Follow directions above.

From I85:
Take Lenox Rd. to Piedmont Rd. Follow directions above.



May Greengrowers

Date: May 5th beginning at noon
 Place: Marble Branch Farms
 155 Marble Branch Trail
 Walhalla, SC 29691
 (864) 718-0152

Since their last Greengrowers open house, Gary and Mark have launched Marble Branch Farms, a small commercial orchid nursery specializing in miniature & compact Cattleya Alliance hybrids and species, and introducing many of their own unique hybrids. You will be able to browse through their 26' x 92' greenhouse, and see the laboratory where orchid seed is flasked. The greenhouse features several innovative systems including rainwater collection and storage, and solar heating, which provides 85% or more of their heating needs in winter. *There will be many plants for sale and they will be offered at 20% discount from the prices listed on their e-commerce site, www.marblebranchfarms.com.*

Marble Branch Farms is a 54 acre secluded tract adjoining a National Forest wild area and bordered by two mountain streams. It is a botanical paradise where rare species from the Smoky Mountains and Coastal Plain meet. Early May will feature many native wildflowers, trees and shrubs in bloom, and with luck, the native Pink Ladyslipper orchids. A woodland walk up a magnificent hardwood cove will lead to a small, but beautiful, double waterfall, so wear casual clothes and good walking shoes.

A picnic lunch will be served. If you plan to attend please let Mark & Gary know at (864) 718-0152 or info@marblebranchfarms.com.

Directions:

- *Take **I-85** North out of Atlanta
- *Switch to **I-985** towards Gainesville. After Gainesville, highway changes name to **GA-365**
- *Just after milepost 52 take right fork towards Toccoa - this is still **GA-365**
- *At second stop light after last turn (comes after a long downhill grade), go left and follow **GA-365 / US-123** through Toccoa, and on to Westminster, SC.
- *Just inside city limits of Westminster, and immediately after US-76 joins in from left, turn left on **Doyle St.** The turn is right in front of the 'Welcome to Westminster' masonry sign.
- *At the next stop sign (4.2 miles from last turn) proceed straight across intersection toward low mountain range. You are now on **Stribling Shoals Rd.**
- ***Marble Branch Trail** is 1.6 miles further on left - just after 5 black mailboxes in a row - first one says "Reinke/Collier".
- *Follow **Marble Branch Trail** 0.6 miles (one lane gravel road) to house on left. House has blue metal roof and large greenhouse behind. Driveway fords shallow creek and there is plenty of parking once at house.

Travel distance is 100 miles from I-85 and Jimmy Carter Blvd. Usually 2 hours from the center of Atlanta.



MARCH 2007 EXHIBITION TABLE AWARDS with notes by Mark Reinke

Class I – Cattleya Alliance

Blue- *Meiracyllium wendlandii* – Collier/Reinke

*****Also received the J C Mobley Cultural Award*****

There are but two species in this genus of unusual cattleya relatives. Both are miniature creeping plants that occur on mossy tree limbs in southern Mexico and Guatemala where they often form large mats of vegetation. They have no pseudobulbs, but instead carry thick fleshy leaves that arise directly from the rhizome. The appearance of the plants suggests they grow in bright light, but the opposite is in fact true. They prefer shady moist conditions with excellent drainage and intermediate temperatures. [*This species should also have a great cinnamon fragrance during the day.*]



Meiracyllium wendlandii

Blue – Otaara Mark Alan Reinke ‘Bob and Joyce’ AM/AOS – Collier/Reinke : I was honored, but definitely taken by surprise when Claude Hamilton, an AOS judge who also owns Hamlyn Orchids, Ltd. of Kingston, Jamaica, named this hybrid after me in 2005. This particular plant was purchased as a seedling at least 5 or 6 years ago, and I was very enthusiastic about it when it first bloomed, so perhaps that is why it was thus named. An Otaara combines Brassavola, Laelia, Cattleya and Broughtonia. While there are a total of 16 species in the ancestry of this orchid, the greatest influence comes from *Broughtonia sanguinea*, *Cattleya guttata*, and *Cattleya aurantiaca*. The well presented ‘bouquets’ of flowers with their unusual colors and heavy substance look great hovering just above the very compact plant. It received its award on March 10, 2007, and technically will not be official until published in Awards Quarterly, which may take up to a year.



Otaara Mark Alan Reinke ‘Bob and Joyce’

Red – Lc. Trick or Treat ‘Marble Branch’ – Collier/Reinke

White – Iwanagaara Appleblossom - Kiss

Class II – Cymbidium Alliance

Blue – Cym (Mighty Mouse ‘Minnie’ x Lady Spring ‘Nancy’) – Quattlebaum : This beautifully grown, spectacular sunset red cymbidium hybrid was achieved by crossing one with greenish-yellow flowers to another with deep burgundy ones. It is surprising with such beautiful color and form that it has not been registered as of yet. It is definitely one to hang on to!

Red – Cym. Sunshine Falls - Phillips

White – Cym. Lamplighter ‘Aladdin’ - Quattlebaum



Cym. (Mighty Mouse x Lady Spring)

Class III – Dendrobium Alliance

Species

Blue – *Dendrobium unicum* – Kessler : This very striking miniature dendrobium species is easy to grow if you are careful to provide the right conditions. In fact a cultural award was granted to the ‘H&R’ clone in 1991 with over one thousand open flowers on a plant growing in a 4 inch pot! It comes from Southeast Asia and grows in a variety of environments from evergreen forest to seasonally dry forests and savannahs. All these locations have in common a warm wet summer and a drier, cooler winter. In cultivation, a cork mount is often used to provide the excellent drainage needed, but a basket or a pot can work as well with careful watering. Because there is nightly dew and high humidity even in the dry season, occasional misting, or less frequent watering should be provided in winter so the plant does not become desiccated. Attractive, colorful hybrids made from this species include *Dendrobium Stardust* and *Dendrobium Chinsai*.

Red – *Dendrobium spectabilis* - Whitfield

White – *Dendrobium kingianum* – Mellard/Marino



Den. unicum

Hybrids**Blue – Den. Stephen Batchelor – Caine****Red – Dendrobium Kodama – Mellard/Marino****White – Den. Red Emperor ‘Prince’ - Missbach****Class IV - Epidendrum Alliance****Blue - Epidendrum Pacific Vista - Kessler****Red - Epidendrum (Pacific Dreams x Sun Valley) - Kessler****Class V – Oncidium Alliance**

Blue – Rodrumnia Orchidom Tom’s Fantasy – Geni Smith : A Rodrumnia combines *Tolumnia* and *Rodriguezia*. This hybrid contains two different species of *Rodriguezia*, but they are both eight generations back, and genetically account for less than one percent of the species input combined, so there is no longer any perceptible influence of them in what we see. As with many ‘equitant oncidium’ hybrids, the greatest influence in their look and color patterns comes from *Tolumnia pulchella* and *Tolumnia triquetra*. See the ribbon judging notes from last month for some tips on culture with these wonderful warm growing ‘twig epiphytes.’

Red – Psychopsis Mendenhall ‘Hildos’ FCC/AOS - Kessler**White – Odontoglossum Margarete Holm ‘Alpine’ HCC/AOS - Whitfield****Class VI – Cypripedium Alliance****Paph. Species**

Blue – *Paphiopedilum braemii* (syn. *tonsum*) – Kiss : This species is not frequently seen in collections and was only discovered in 1989 in extreme northwestern Sumatra. It grows in the thick layer of humus that covers the lower slopes of densely forested mountains. This layer of decomposed vegetation can be nearly two feet thick, so the plants never actually root into soil and are considered epiphytic (like most *paphiopedilums*). It was at first viewed as a smaller variety of *Paph. tonsum* but more detailed study revealed enough differences that it is now elevated to species status. There is a short dry season in the winter months, so most sources recommend give the plants a rest with less water and fertilizer at that time. The main bloom season is late spring, early summer, so this specimen is slightly ahead of schedule.

Red – *Paphiopedilum hirsutissimum* – Lentz/Morgan**White – *Paphiopedilum delenatii* – Geni Smith****Paph. Hybrids**

Blue- Paph. Delrosi – Dampog : When Vacherot-Lecoufle and Sons, a famous French orchid house, crossed the demure *Paph. delantii* with the imposing *Paph. rothschildianum* at the beginning of the 1960’s they must have had high expectations. And true to form, over the past 30 plus years, this bold purple and white hybrid has garnered 48 flower quality awards. So far, it has been less successful as a parent, with just one offspring, *Paph. Lisa Hasegawa* (x *Paph. sanderianum*) having earned more than one award to date.

Red – Paph. Black Curt – Lentz/Morgan**White – Paph. Roth-Maud – Missbach***Den. Stephen Batchelor**Epi. Pacific Vista**Rodrumnia Orchidom Tom’s Fantasy**Paph. Delrosi**Paph. braemii*

Phrags.

Blue – *Phragmipedium besseae* – Lentz/Morgan : This species barely needs any introduction, and I have already written extensively about it in the process of describing some of its many fine red hybrids. When seeing this species in bloom for the first time, many people are surprised by two things: first, how small both plant and flowers are compared to many of its hybrids, and second, how amazingly fluorescent its orange-red color is! It would be impressive if someone found a way to breed that bright color into the large flowered hybrids, instead of the deeper blood reds that usually result.

Red – Phrag. Barbara LeAnn ‘Virginia Ann’ HCC/AOS – Kessler

White – Phrag. Living Fire – Geni Smith



Phrag. besseae

Class VII – Phalaenopsis Alliance**Species**

Blue – *Phalaenopsis mannii* – Gilmore : Despite being one of the smaller flowered species, *Phal. mannii* is both much awarded and frequently used in hybridization, with over 800 registered crosses including it in their ancestry. Like many of the smaller flowered species, the inflorescence continues to produce new buds annually for a number of years, so that eventually specimens with many flowering spikes are possible. It is considered more temperature tolerant than other phalaenopsis species because it can grow as high as 5,000 feet above sea level in shady evergreen forests of SE Asia. Keeping the plant a little cooler in winter, with less water, but still good humidity, stimulates it to flower well in the later winter through spring.

Red – *Phalaenopsis violacea* - Kessler

Hybrids

Blue – Phal. Hilo Lip ‘Cheryl Oliff’ – Lentz/Morgan : This eye catching Phalaenopsis hybrid has received an Award of Distinction and 13 flower quality awards from the American Orchid Society. The combination of bright rose pink flowers with a contrasting creamy white lip had not been seen in this genus prior to its registration in 1988. Quite a few hybrids have already been created using it as a parent, and at least some have been successful in carrying this color contrast through to succeeding generations.

Red – Phal. Brother Excelsior ‘OK’ AM/AOS – Brinton/Park

White – Phal Taisuco Kaaladian – Lentz/Morgan



Phal. mannii



Phal. Hilo Lip ‘Cheryl Oliff’

Class VIII – Vanda Alliance

Blue – *Renanthera Akihito* ‘Emperor’ – Collier/Reinke

Red – *Ascocentrum miniatum* – Geni Smith

White – *Aerangis fastuosa* – Mellard/Marino

Class IX – Miscellaneous**Epiphytic**

Blue – *Propetalum Bumble Bee* – Mellard/Marino : Propetalum is an intergeneric hybrid between Promenaea and Zygopetalum. Generally in these crosses, the flowers emerge with new growth as in zygopetalum. The grex was named for the shape and color pattern of the flowers, which can resemble a bumble bee in flight. Both genera occur in montane forests of southern Brazil where they are often partially buried in leaf litter. They like to grow shady, humid and well watered, with somewhat less water for a few weeks once the pseudobulbs on new growths have matured.

Red – *Bulbophyllum nymphopolytanum* - Whitfield

White – *Oberonia setigera* – Ramborger



Renanthera Akihito
‘Emperor’



Propetalum Bumble Bee

Terrestrial

Blue – *Gastrophaius Amabilis* – Kiss : This old hybrid registered in 1893 by Veitch now has a new name, as one parent, *Phaius tuberculatus*, is now accepted as *Gastrorchis simulans*. It makes a stunning and majestic floral display and has recently received several flower quality and cultural awards. These large terrestrial orchids like deep rich soil, warm temperatures and year round water and fertilizer. Sometimes, new plantlets can be encouraged to form from the nodes of a spent flower stem placed on damp sand in a warm, shady place.

Red – *Stenoglottis longifolia*- Mellard/Marino

White – *Pleione forrestii* – Mellard/Marino



Gastrophaius Amabilis

Collecting Solar Heat at Marble Branch Farms

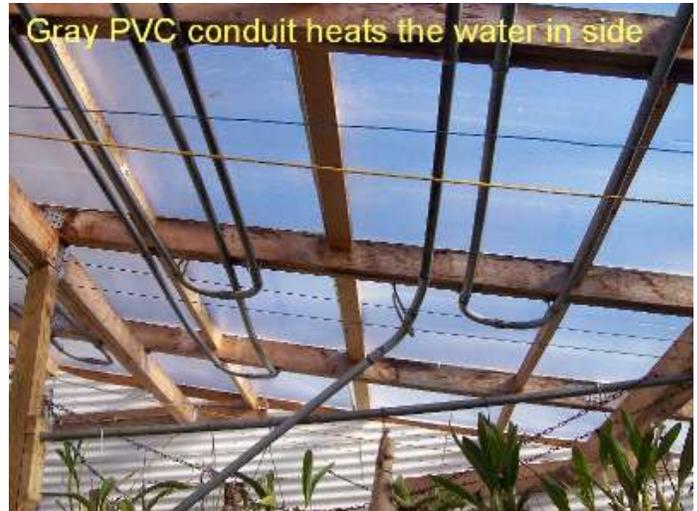
Mark Alan Reinke

When Mark Alan Reinke and Gary Collier began planning their small commercial greenhouse outside of Walhalla, SC, one of their immediate concerns was how to heat the 26' x 92' space in a cost effective way. This concern was heightened by the fact that Marble Branch Farms is located in an isolated valley at the base of the Blue Ridge Mtns. that has abnormally cold nights in winter, compared to surrounding areas. Not only do most nights from November 15th to March 15th fall below freezing, but heavy cold air draining into the valley often brings the temperature below freezing early in the evening, giving many more hours each night for which heating is a major concern. Bitter lows in the teens are not at all unusual on the same nights that barely fall below 30 in Atlanta, despite the fact that their greenhouse site lies at a slightly lower elevation than the city! On the positive side, prevailing winter winds down-sloping off the crest of the Blue Ridge to the northwest create a 'chinook effect' in the Upstate of SC, frequently evaporating clouds and giving the area sunny days when just a short distance in all directions it remains gray and dull. So an evolution of ideas followed that led to a solution which takes advantage of the greenhouse site, abundant winter sunshine, and low-tech materials to keep the greenhouse warm without breaking the bank!



To take advantage of site, they located their greenhouse at the base of a steep southeast facing hill directly behind their residence, but far enough from it so that the home's roof would not interfere with the low winter sun angle. The greenhouse was built shed style with the long back side partially buried in the base of the hill, and built as a solid wall with 6 inches of insulation. In inside surface of this wall is approximately 14 feet tall, and was covered with inexpensive white PVC corrugated roof panels which catch the low winter sun and reflect it back into the growing area. (A side benefit to this reflected light is that plants near the back wall grow straight upwards instead of slanting towards the sun!) The northeast wall was also built as a solid insulated wall since no direct sunlight comes from that direction either. The other surfaces were covered with 8 mm clear twin-wall polycarbonate plastic. The orientation of greenhouse from southwest to northeast means that the maximum available sunshine hits the structure in the winter, while baking late afternoon sunshine is blocked by the steep hillside from 4 p.m. onwards in summer. (Shade cloth is lowered from March 1st until November 1st.)

So, now that everything was done to use the location and orientation of the structure to gain maximum passive solar advantage, it was time to invent a way to augment this with *active* solar collection. Their solution was an adaptation of solar collection systems used to heat swimming pools. This method works by pumping the pool water up into black plastic capillary pads laid on a nearby solid roof surface. The pads absorb the sun's heat very efficiently, and pass it on to the water circulating through them, so that, at least in warm, sunny climates, they effectively transfer this heat the pool to extend the swimming season. Collier and Reinke decided that on cold, bright winter days, there was more heat collection potential on the inside of the greenhouse just under the roof panels where they could not only take advantage of direct solar radiation, but also the rising hot air within the enclosed structure itself. Furthermore, they would avoid the heat loss created if the collection devices were outside the greenhouse exposed to the wind on cold winter days.



Obviously, large, flat collection pads in this location were not an option, but noticing how effectively the water inside an idle garden hose laying flat on the ground on a sunny day was heated, they surmised that if one could run water through relatively narrow tubing back and forth the entire length of the greenhouse enough times, circulating water could be heated effectively. The material chosen was inexpensive 1" diameter gray PVC pipe, normally used for exposed electrical conduit, and therefore made to be UV resistant. The upper surface was spray-painted flat black for maximum heat absorption, and it was run a total of nine times back and forth for each of two separate collection systems.

The next challenge was coming up with a practical way to store the heat collected. The first idea was to construct two open water troughs to sit directly underneath the two main center benches. This water would be pumped through the collecting pipes during the daytime and radiate the stored heat back into the growing area at night. But it wasn't long before they realized the contamination of fertilizer, chemical sprays, and organic matter from the plants and media would create a constant problem. The storage system would have to be enclosed to avoid continual maintenance headaches. The alternative they came up with was to use 55 gallon PVC barrels, filled with water. As previously used containers, these barrels could be obtained here and there for \$5 to \$8 apiece through classified ads in local papers.

The space under each of the two central benches, which are 6 feet wide by 70 feet long, was filled with 100 of the plastic barrels, providing 11,000 gallons of heat storage capacity. But to make the water in the barrels *themselves* circulate would create many mechanical problems, so instead the heated water from the collection system travels in and out of each barrel via standard garden hoses, joined together. As the system transitions from PVC pipe to garden hose, it also splits into two separate runs of 50 barrels each, which helps to lower the size of the required pump needed to push the water through the system. At the end of the storage system is another barrel that receives the heat-depleted water. From here it is pumped up through the system once again using a 1 HP swimming pool pump which sucks the water out of the barrel through a foot valve. When the system is turned off at night, the valve helps the pump maintain its prime by preventing water from running backwards through the system and draining the overhead pipes.



A simple electrical timer is used to turn each pump on and off each day so that it only runs during the period when maximum heat collection is possible. The timers are adjusted throughout the season as the day length changes. If a particular day is overcast, manual override switches are used to keep the pumps from coming on. The system is started up each year on October 1st, so that it can begin collecting heat while the sun angle is still high. This makes it easier for the system to add heat during the period of lowest sun angle near the winter solstice. The two systems are totally independent of each other, so that the amount of heat collected can be adjusted by changing the number of hours each system collects, or turning one off altogether. By April 1st, passive solar heating alone is sufficient, and the system is shut down for the season.



The collection pipes are situated above the shade cloth, so that they can continue to collect heat during the months of March and October, when the shading is still in place. A 60,000 BTU propane gas heater is in place to supplement the system if and when needed. The entire house and greenhouse are on a 15,000 Watt LP gas backup generator that automatically switches on during power outages.

How effective has this system been? Collier and Reinke estimate that in the first winter alone, they saved more than enough on liquid propane to pay for the material cost of the system. Based on what other commercial growers pay to heat similarly sized free-standing greenhouses, they estimate that the combination of using the site to best advantage and their solar collection systems, they save at least 80% on their heating costs. In the winter of 2005-2006, the cost of liquid propane per cubic foot of greenhouse for the *entire season* was only \$.04, and this was when the cost of fuel per gallon was at an all time high! It would not be difficult to adapt this type of system to fit any size greenhouse, so it is well worth a little time spent thinking outside the box.

JOIN THE ORCHID DIGEST CORPORATION

Don't let the name fool you, the Orchid Digest is a non-profit membership-based organization dedicated to orchids. Designed to appeal to the mid-range to advanced grower nothing beats the *Orchid Digest*. For just \$32/year you get 4 issues of full-color, in-depth articles about orchids. The magazine is large format and the fourth issue of the year is always an extra-special issue devoted to a single genus. For membership application forms contact Fred Missbach (404-237-1694)

Join the Atlanta Orchid Society

Membership in the Atlanta Orchid Society is \$30 for individuals or \$45 for households. Yearly membership runs January 1-December 31. Anyone joining in the third quarter will get a 50% discount on the current year's membership. Anyone joining in the fourth quarter will purchase a membership for the following year. You can join at one of our monthly meetings, or contact the society's Treasurer (see page 2) for a membership application.

For directions to the Atlanta Botanical Garden, please visit their web site at www.atlantabotanicalgarden.org or contact one of our society's officers listed on page 2.

Newsletter Submissions

To submit material for the newsletter, or to sign up for the email version of the newsletter, please contact Danny Lentz. The deadline for submissions is the 20th of the previous month.

MAIL TO: Danny Lentz
1045 Wordsworth Dr.
Roswell, GA 30075

EMAIL: DBLGONGORA@BELLSOUTH.NET

Advertising

Advertising is now being accepted for our newsletter. The size and number of ads may be limited at the discretion of the editor. Advertising Rates per issue are: ¼ page \$10, ½ page \$20, 1/8 page text only \$5.

RECENT ACTIVITIES OF THE ATLANTA JUDGING CENTER

The following awards were granted at recent sessions of the AOS Atlanta Judging Center. They are provisional awards pending official publication in the *Awards Quarterly*. Certificates of Horticultural Merit and Certificates of Botanical Recognition are also provisional pending identification by an AOS certified taxonomist prior to publication of the award.



Sopholaeliocattleya Final Touch 'Lemon Chiffon'
AM/AOS 83 pts. (Slc. California Apricot x Lc. Drumbeat)
 Natural Spread: 11.1-cm H x 11.6-cm V
 Three flowers well-presented on one inflorescence; sepals and petals rich canary yellow; lip golden yellow with a red velvet overlay on distal midlobe; substance firm; texture sparkling.
 Exhibitor: Gary Collier & Mark Reinke

JOIN THE AMERICAN ORCHID SOCIETY

For \$60.00/year, you reap the following benefits:

- 12 issues of *Orchids*, the Society's monthly full color magazine chock full of insightful articles and tempting ads for plants and supplies.
- 10% off on purchases from the Society's Bookstore and Orchid Emporium. Reduced or free admission to participating botanical gardens.

For a limited time, if you join for two years (\$108) you will also get a \$30 gift certificate (good on an order of \$100 or more) at any one of 13 commercial growers who advertise in *Orchids*. **JOIN TODAY.** For information, contact Evan Dessasau (404-241-4819)



Otaara Mark Alan Reinke 'Bob and Joyce'
AM/AOS 81 pts.
 (Ctna. Maui Maid x Blc. Fuchs Orange Nuggett)
 Natural Spread: 6.3-cm H x 7.0-cm V
 Thirteen flowers and ten buds on five erect inflorescences plus two buds on one emerging inflorescence; sepals and petals light apricot, petals darker apricot marginally; lip dark burgundy, side lobes light apricot; column and anther cap cream-colored with burgundy markings on frontal edge; substance very hard; texture sparkling.
 Exhibitor: Gary Collier & Mark Reinke

Please visit our web site at

<http://www.atlantaorchidsociety.org>

The Atlanta Orchid Society web site contains recent newsletters and articles, cultural information for growing orchids in Atlanta, as well as a calendar of events and information about our annual shows.

Do you have any ideas for newsletter articles?
 Any questions you would like answered?
 Information you'd like to share with the rest of our members? Suggestions for the Collector's Item column? Let me know. I always need ideas and content for the newsletter.
 -danny

Member Announcements

If you have any news you would like to share with the society please send me a short announcement. -danny

Recent Blooms at the Atlanta Botanical Garden, March 2007



(above left and middle) *Oncidium hastilabium*
(above right) *Scaphosepalum microdactylum*
(middle left) *Miltoniopsis* hybrid?
(below left) *Cattleya intermedia*
(below right) *Dracula hirtzii*

Photos © Danny Lentz





Maxillaria desvauxiana

Plant grown by the Atlanta Botanical Garden.

Greengrowers Directions – David Mellard’s house

Time: Saturday April 7 from 10:00 – 1:00

3409 Regalwoods Drive, the house with the carnivorous plant bogs in the front yard.
770-270-5758

1. **Going north on I-85 from downtown.**
Exit at Northcrest/Pleasantdale, a dual exit
Turn right onto Northcrest
Go past the driving range and turn left onto Regalwoods
Go about 200 yards, house on the left (3409 Regalwoods Drive)
2. **Going south on I-85 from Gwinnett County**
Exit at Pleasantdale/Northcrest, a dual exit
Go straight across Pleasantdale
Follow the signs to Northcrest
Turn left onto Northcrest
Go across I-85 and past the driving range
Turn left onto Regalwoods
Go about 200 yards, house on the left (3409 Regalwoods Drive)
3. **Going south on I-285 from GA 400/Perimeter Mall**
Take the Chamblee Tucker exit at I-85/I-285
Turn left onto Chamblee Tucker
Go across I-285
Turn left onto Northcrest (at the Chevron Station)
Turn right onto Regalwoods
Go about 200 yards, house on the right (3409 Regalwoods Drive)
4. **Going north on I-285 from I-20/Northlake Mall**
Take the Chamblee Tucker exit just before I-85/I-285
Turn right onto Chamblee Tucker
Turn left onto Northcrest (at the Chevron Station)
Turn right onto Regalwoods
Go about 200 yards, house on the right (3409 Regalwoods Drive)