



September 14, 2015

Clark Riley: Building a 21st Century Greenhouse

Clark Riley has been an active orchid grower since 1957. At the age of six, he got his first plant, a (probably collected) *Cypripedium pubescens* from a perennial nursery. The plant died a miserable death in a short time, but not before blooming and cementing a love of orchids that has lasted over half a century. He has labored ever since to make amends by promoting the sound cultivation of Cyripedia. He grows a wide range of orchids, including several thousand terrestrials, hardy species, ladyslippers, Brazilian Laelias, and specialty Phalaenopsis, often from seed. He was the producer for the Proceedings of the North American Native Terrestrial Orchid Conference (book and CD). He is a member of the Maryland Orchid Society, the American Orchid Society, and the International Phalaenopsis Alliance, as well as a frequent contributor to the Orchid List Digest. He can be reached at driley@aol.com or visit his website at <http://cyps.us>.



Clark will be selling plants.

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Dinner with the speaker

5:30 pm - before the meeting at Carrabba's Italian Grill

5312 New Hope Commons Drive, Durham, across from New Hope Commons Shopping Center at the intersection of I-40 and US 15/501.

Please contact Alan Miller if you plan on attending the dinner. (919) 969-1612

The Triangle Orchid Society meets at the Sarah P. Duke Gardens, 420 Anderson St.

Durham, NC
The Second Monday of the Month

at 7:30 pm

Triangle

OrchidSociety.org



**TOS Officers and
Board Members
2015**

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August 10, 2015 Membership Meeting Minutes

The August 10, 2015 membership meeting of the Triangle Orchid Society, Inc. was called to order at 7:30 p.m. by Nancy Harvey, TOS President. Guests and new members were welcomed. Approximately 50 people attended the meeting on this warm summer evening. The minutes of the July 13, 2015 membership meeting were approved. Axel Elling was recognized for manning the Welcome Table. Anne Williams sold raffle tickets and managed the silent auction of plants left over from our successful Grower's Day. Everyone was encouraged to purchase raffle tickets at \$1 each, or 6 for \$5.00.

Also, members were reminded of the upcoming Fall Auction, Saturday, September 12, at Lake Crabtree Park (see page 9). The Auction will be unusual because it will consist mostly of large orchid plants donated by Jerry Broadwell and others, with possibly only a few smaller nursery purchased plants. Thanks were given to Louanne and Chrissy Shea who provided refreshments and drinks for the evening.

Sidney Cox, TOS Vice President, introduced the speaker, Tim Culbertson who spoke on *Maudiae Paphs* (see page 3). Tim brought some lovely *Maudiae Paphs* to sell and donated several for our raffle table. Tim Culbertson and Harry Gallis led an excellent show table discussion.

The Jack Webster Award Plants were as follows.

Greenhouse Grown:

- 1st Place: *Stanhopea (stevensonii x jenischiana)*, grown by Paul Virtue
- 2nd Place: *Ascovandoritis* Prapin, grown by Olivene Virtue
- 3rd Place: *Cyrtorchis chailluana*, grown by Nancy Harvey

The Non-Greenhouse Grown:

- 1st Place (Tie): *Bulbophyllum setaceum*, grown by Elena Turner
- 1st Place (Tie): *Platystele beatricis*, grown by Charles Walker
- 2nd Place: *Goodyera pubescens* (Downy Rattlesnake Plantain) grown by Sidney Cox

The meeting was adjourned at 9:30 pm. Meeting minutes were submitted by Nancy Harvey.



August 10, 2015

Tim Culbertson: Paphiopedilums

Paphiopedilum (*P.*) Maudie, a cross of *P. callosum* X *P. lawrenceanum*, was registered in 1900 by Charlesworth. The original cross was made using albanistic forms of both species and resulted in a lovely white flower with green striped, rounded dorsal. The flower was large and it was carried on a strong straight stalk. The petals tended to be upswept. The foliage was a dark green with pale grey mottling. The cross proved to be easy to grow and a reliable bloomer, often blooming several times a year. To say it has been a popular hybrid would be an understatement— *P. Maudie* has been awarded one hundred and sixty-seven times. It has been used in three hundred primary crosses and its lineage shows up in more than thirty five hundred hybrids. Tim's presentation focused on the evolution of the hybrids and the species that were utilized. He took pains to explain what each species contributed to the cross – what characteristic or color was passed to the next generation. The evolution of the hybrids that have developed from that original cross is a fascinating story.

In 1911, *P. Alma Gevaert* was registered. It was a hybrid featuring *P. Maudie* back crossed to *P. lawrenceanum*. Like its parent, it proved to be a very popular hybrid and it has been awarded twenty-two times. The flower is slightly larger, but the roundness of the dorsal is maintained, and the petals continue to be swept upwards. *P. Alma Gevaert* has been used in eighty eight primary crosses, and it has been utilized in more than four hundred progeny. Successive generations of "winners" have included *P. Almaud* (*P. Emerald* X *P. Alma Gevaert*) in 1945; *P. Vert* (*P. Emerald* x *P. Maudie*) in 1929; *P. Claire de Lune* (*P. Emerald* X *P. Maudie*) in 1927); and *P. Almaud* (*P. Emerald* X *P. Alma Gevaert*) in 1945.

During the 1950s and 60s, there was a hiatus of sorts in Paph breeding and hybridizers turned to other pursuits. Late in the 1960s however, interest was renewed when growers began experimenting with the pink and vinicolored species. Until then the focus had been on the white and green species. Now, breeders began to introduce colors into the breeding lines. In 1923, a hybrid named *P. Earl of Chester* was introduced. This hybrid was roughly fifty percent *P. charlesworthii* and twenty two percent *P. barbatum*, both considered to be "red" paphs. In 1935, a hybrid of *P. Earl of Chester* with *P. Maudie* was registered as *P. 'Sunset.'* This proved to be a huge breakthrough and was instantaneously a worldwide success and it was awarded by the AOS as well as the RHS. The flowers had a natural spread of eight inches and its flowers remained in bloom for four months. It had extremely heavy substance, and proved itself to be a vigorous grower. In 1955, it was awarded as the Best Paphiopedilum of the year. In 1989 *P. Red Maude* was registered. This was a remake of *P. Maudie* with *P. callosum* and *P. lawrenceanum*, but with a healthy dose of *P. mastersianum* as well. *P. Red Maude* had heavy substance and a lacquered appearance. Its large waxy flowers are remarkable for being dark red, or "vinicolor."

Hybridizers began to experiment with multiple species crossed onto basic *P. Maudie*. They found that using *P. acomodontum* resulted in a pink flush on the flowers, but most notably it produced a purple flush to the underside of the foliage. *P. barbatum* has a circular dorsal with a pointed apex, which it tends to pass on to its offspring. It also produces flowers with dark pouches and petals. It is a small plant and tends to reduce the size of the plants themselves although it enlarged the size of the pouch. *P. purpuratum* provided a rich red color, while *P. wardii*, another small plant, is dom-



inant for its dark color. It also tends to be very hirsute (hairy) along the margins of the dorsal and petals, and passes this trait to its offspring. It also seems to contribute some very dark spotting. *P. charlesworthii* proved itself as the donor of larger, round dorsals. Its blooms are also very long lasting, particularly if kept in a shaded area. It also tends to be dominant for its characteristic as a fast grower. *P. venustum* is known for the dark green venation that highlights its light green color. It has proven itself as being fast growing and temperature tolerant, desirable characteristic for its offspring.

In 1987, Voodoo Magic hit the market. This was a cross between *P. callosum* and *P. curtsii* and produced a well formed dark red flower. It had a large dorsal that was rounded but pointed at the apex. The petals swept down in an arc. The influence of *P. callosum* is so clearly evident! This was extended in 1990 when *P. Macabre* was registered. This is *P. sukhakulii* but again has a healthy dose of *P. callosum*, increasing the size and width of the petals. In 1995, *P. Satchel Paige* hit the hobby market and immediately took everyone by storm. This cross of *P. wardii* by *P. Vintner's Treasure* is fifty percent *wardii* and twenty five percent *callosum*. It is incredibly dark, hirsute, has great form and is a vigorous, easy grower. In 2006, *P. Peacock* was registered. This was a cross made with *P. callosum* and *P. lawrenceanum*, for the basic Maudie characteristics, but with *P. mastersianum* thrown in. The result was a dark red or vinicolored flower with a wider dorsal, wider petals, as well as interesting spots on the pouch. The *P. mastersianum* gave the cross a heavy, waxy substance and increased the longevity of the flowers. The substance was so heavy that it gave the flower a lacquered appearance.

In 1893, seven years before *P. Maudie* was made, *P. fairrieianum* was crossed with *P. lawrenceanum* to make *P. Lawrenceo-fairrieianum*. This cross doesn't appear to have been notable in any way and it was never awarded or used in hybridizing. In 1909, however, *P. fairrieianum* was tried again, with *P. Maudie*. The result was *P. Faire Maud* which has been awarded over a hundred times. *P. fairrieianum* contributed down-swept petals. It also produced one of the first so called "soft pinks." Pinks also developed from *P. acomodontum*. *P. charlesworthii* was responsible for contributing its large pink dorsal, while violet tones developed from *P. callosum*, *P. barbatum* and *P. purpuratum*. Plant height was achieved by using *P. rothschildianum*. It was crossed with *P. Maudie* in 1919 to make *P. Ruth-Maud*. While this cross was awarded a number of times, it was never used again with *P. Maudie*.

Maudie type Paphs today are a hobby grower's delight. They are easy to grow, and rapidly fill a three to four inch pot. Their offspring are uniform in their growth habit. They are readily divided and reproduce rapidly. At full size, a "fan" is fourteen inches across, making it a relatively small plant and therefore taking up limited growing space on the bench. The plants are robust and the blooms last two to four months.

Tim indicated that Maudie type Paphs are "low care" plants that thrive in "normal" house plant environments. They require constant average temperatures between seventy two to seventy five degrees, but they can tolerate minimum temperatures down to sixty degrees for short periods of time. They prefer a humid environment. Most have fairly low light requirements so they can be grown in shaded areas. They enjoy the same conditions year round, with no need for seasonal adjustments. Tim recommended weekly heavy watering as their natural habits tends to experience rainforest levels of humidity. Tim stated that Maudie type Paphs can tolerate heavier fertiliz-



er concentrations than most other orchids. He uses a concentration of one tablespoon per gallon of water, although this sounds very high, even for Paphs.

Tim grows his Paphs in a mixture of one part bark, one part lava rock, and one part perlite. He said that this mixture is cheap and breaks down very slowly. Using this mix however, the grower must be careful to compensate with additional trace elements, especially if you are planning to grow large specimen size plants. Tim said that this mix is good for at least two years before it begins to break down and repotting is required. This is an interesting comment. I have always tried to report Paphs every nine to ten months based on Harold Koopowitz's recommendation. Harold and his one-time partner Norito Hasegawa developed Paphanatics, their prestigious company and source of high quality Paphs. Harold has always maintained that repotting stimulates root growth so frequent repotting promotes strong, healthy, larger plants. Frequency of repotting, therefore, seems to be a matter of debate, or the discretion of the hobby grower who actually does the work.

What I enjoyed about Tim's presentation was his description of the genetic traits that each successive species contributed over multiple generations of breeding. I found Tim's presentation to be both educational and entertaining. The fact that he is a middle school teacher obviously contributes to his speaking skills and his ability to relate to his audience.



Jack Webster

Awards

Greenhouse Grown

2nd Place: *Ascovandoritis Prapin*
grown by Olivene Virtue



1st Place: *Stanhopea (stevensonii x jenischiana)*
grown by Paul Virtue



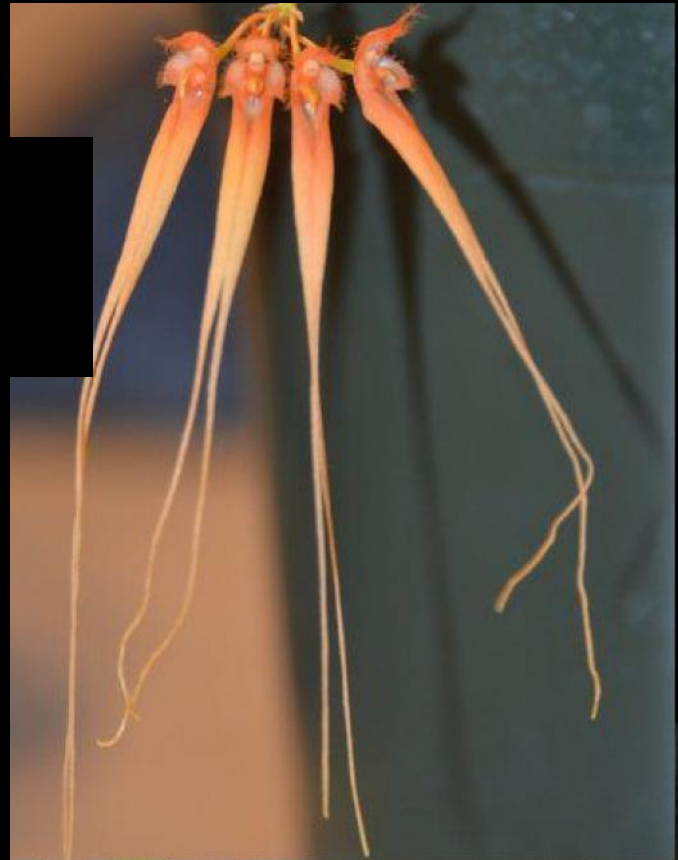
3rd Place: *Cyrtorchis chailluana*
grown by Nancy Harvey

Thanks to Alan Miller For taking these great show table photos



**Jack Webster
Awards
Non-Greenhouse
Grown**

1st Place Tie: *Bulbophyllum setaceum*
grown by Elena Turner



2nd Place: *Goodyera pubescens*
grown by Sidney Cox



1st Place Tie: *Platystele beatricis*
grown by Charles Walker



Keiki Club News

The August Keiki club was hosted by master growers Paul and Olivene Virtue. They are known for their specimen-sized Cattleyas and Vandas, as well as their gorgeous Paphs and other low light orchids. They have won numerous TOS show table awards, as well as AOS show awards. Approximately 12 society members attended. Everyone was in awe at the display of hundreds of orchids outside; they have over 800 orchids in total. Orchids that were placed outside for the summer included Paul's high light orchids (mostly Vandas and Cattleyas) and Olivene's low light orchids (mostly Paphs). Our hosts gave tours of orchids and growing areas with tips for opti-



1st Place, October 2013
Nakornpathome Silver Olivene
grown by Paul Virtue

mizing orchid culture. In addition, Paul gave lessons on how to make baskets, hangers, and their preferred methods to eradicate pests

Paul provided orchid lessons.



Paul gives exuberant orchid discussions.
(Olivene is in the foreground)

and fungus. They told us about their favorite products, including fertilizers, systemic pesticides and fungicides, and potting media. We even learned how Olympic bobsled-ding got started in their native country of Jamaica!

The Keiki Club a great way to learn orchid culture methods from our society members and is also a good opportunity to ask questions in an informal group.



Blc. George King
(Virtue 2013)

Plan on attending the Sept. meeting at Paul Welty's house. You'll have a chance to see his orchid collection and how he deals with cultural problems, particularly pests and diseases.

9:30 am Saturday, Sept. 19, 2705 Tavistock Drive, Durham, N.C.

Phone: (919) 251-8097 Cell: (727) 215-5512

In the past this event was called a "greenhouse crawl."



Orchid Plant Auction

Sponsored by the Triangle Orchid Society
at the Beech Shelter at Lake Crabtree Park,
Morrisville, North Carolina

Saturday, September 12, 2015

Potluck Lunch & Preview: 12:00 Noon

Auction begins at 1:00 pm

Many large plants this time!

All ORCHID LOVERS WELCOME!



**Beech Shelter parking is the third right
turn after entering Lake Crabtree Park.**

For more information go to: www.triangleorchidsociety.org



TOS Fall Orchid Auction, see page 9

Saturday, September 12

Large and specimen-sized plants
Auction list at TriangleOrchidSociety.org Sept. 6-11.

TOS Members Meeting

7:30 pm. Monday, September 14
“Building a 21st Century Greenhouse”
Sarah P. Duke Gardens
402 Anderson St., Durham NC

Keiki Club

9:30 am Saturday, September 19
This event will be held at Paul Welty’s home.
2705 Tavistock Dr., Durham NC
Phone: (919) 251-8097 Cell: (727) 215-5512

TOS Board Meeting

6:30 pm Monday, September 21
All TOS members are invited to attend.
Library at Sarah P. Duke Gardens
402 Anderson St., Durham NC

TOS Monthly Show Committee Meeting

9:30 am Saturday, September 26
This month at home of Nancy Harvey
3502 Manford Dr., Durham NC
Phone: (919) 401-4533

Upcoming Events

Coastal Carolina Orchid Show (Oct. 2-4)

N.C. State Fair Exhibit (Oct. 15-25)

TOS Fall Orchid Show (Nov. 21-22)



Photos of Paul Fever and his greenhouse grown orchids.



Public Garden Event



Sarah P. Duke Gardens Fall Plant Sale

Saturday, Sept. 26, 9 a.m.-noon*

Featuring:

- Duke Gardens plants
- fall-blooming perennials
- trees
- shrubs
- vines
- spring-flowering bulbs
- decorative plant pots
- free horticultural advice
- specialty items from the Terrace Shop

Fall is an ideal time for planting. So bring your boxes, wagons and wheelbarrows and load up!

**Pre-sale at 8 a.m. for
Gardens members
Info: 919-668-1711*

420 Anderson St., Duke University, Durham
Info: 919-684-3698; gardens.duke.edu





Paul Feaver at The Orchid Trail, 402 Church St, Morrisville, NC 27560

Triangle Orchid Society Meeting Agenda:

- 7:00-7:30 Set Up Show Table and Chairs
- 7:30-7:40 Business Meeting Announcements
- 7:40-8:30 Program
- 8:30-8:50 Break
- 8:50-9:20 Show Table Review, Show Table Awards
- 9:20-9:30 Raffle

Date	Speaker	Topic
Sept. 14, 2015	Clark Riley <i>Will be selling plants.</i>	Building a 21st Century Greenhouse
Oct. 12, 2015	Pending	TBD
Nov. 9, 2015	TOS	Preparation for the TOS orchid show

Welcome Table

Refreshments

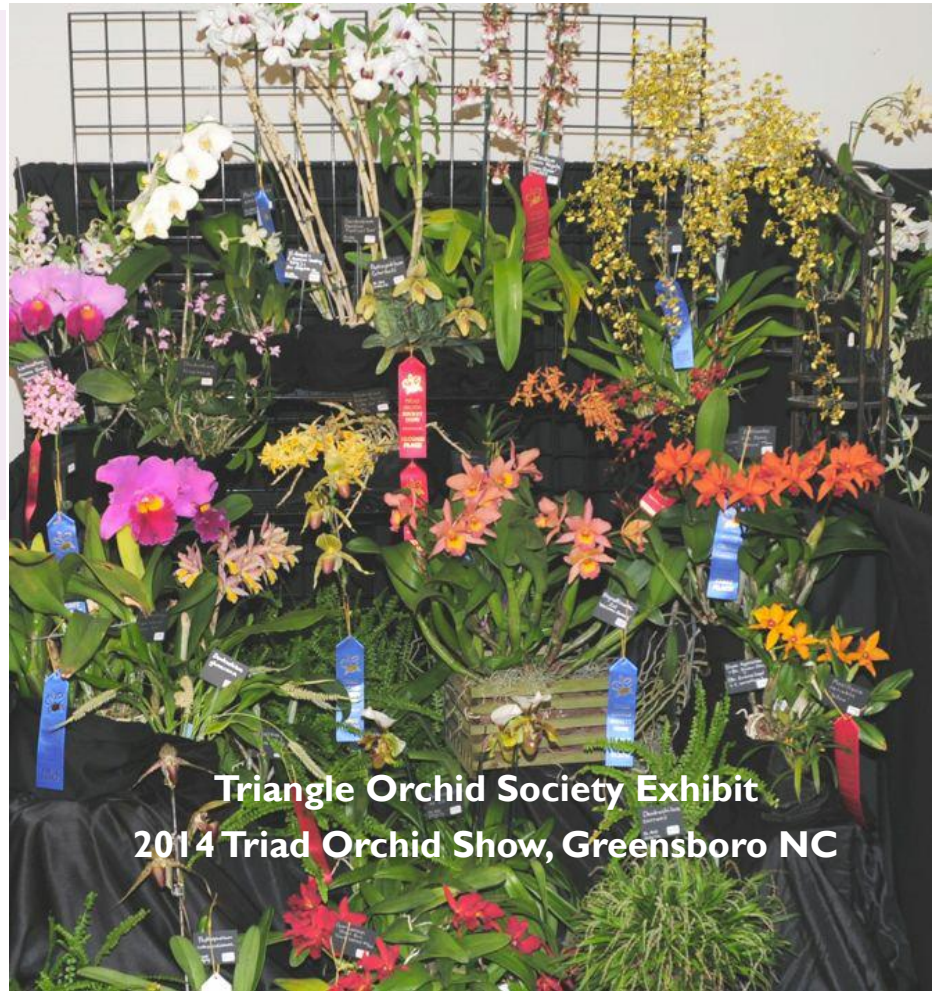
September	Axel Elling	See Nancy to volunteer.
October	Axel Elling	See Nancy to volunteer.



**The Triangle Orchid Society
meets at the
Sarah P. Duke Gardens,
Durham, NC
The Second Monday of the
Month
at 7:30 pm**

Visitors are Welcome!

TriangleOrchidSociety.org

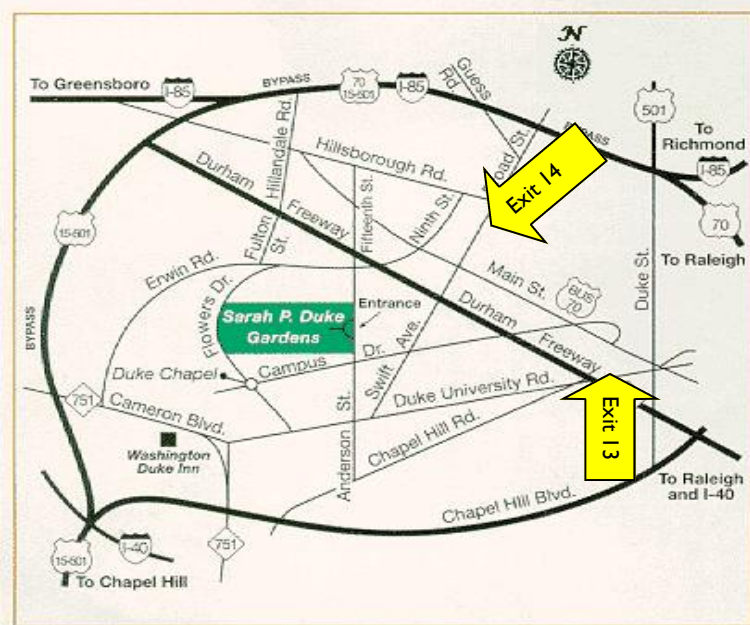


**Triangle Orchid Society Exhibit
2014 Triad Orchid Show, Greensboro NC**

Newsletter Editor
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E-mail: TOSnewsletter2015@gmail.com



From the East:

Durham Freeway (#147) to Exit 13.
Right on Chapel Hill Rd.
Right on Anderson St.
Sarah P. Duke Gardens (420 Anderson) on left.

From the West:

Durham Freeway (#147) to Exit 14.
Right on Swift Ave.
Right on Campus Dr.
Right on Anderson St.
Sarah P. Duke Gardens (420 Anderson) on left.

Triangle Orchid Society Dues:

\$22 per year single, or **\$30** per year for two persons living at the same address.

Send your dues to: Anne Williams, TOS Treasurer, 1506 Kent St., Durham NC 27707