



Orchidacea

Newsletter of the
Triangle Orchid
Society
Associated with Sarah
P. Duke Gardens

Speaker for Dec 10, 2007 Dr Non Garling "Magic potions, home remedies"

Dr. Don Garling was Born in Dayton, OH and has lived in Flint, MI; Richmond, KY; Starkville, MS (it really was stark!); and Blacksburg, VA before ending up in Okemos, MI. He is married to Kris and they have two adult children. He has a B.S. Biology from the University of Dayton, an M.S. Biological Sciences from Eastern Kentucky University and a Ph.D. in Zoology from Mississippi State University specializing in fisheries with a minor in biochemistry. Don is currently a professor in the Department of Fisheries and Wildlife at Michigan State University and is an extension specialist with program responsibilities in aquaculture, fisheries management, nuisance aquatic plant control, and orchids. His hobbies and special interest include orchids and daylilies, home brewing, Sunbeam Alpines, photography, wood working, and reading (Tom Clancy, John Grisham, and Michael Crichton). Don's interest in orchids began as a high school student when he purchased orchid corsages for those "special" women in his life. He visited the orchid collection at the Bogor Royal Botanical Gardens while on sabbatical to Indonesia in 1986 and thought too bad you can't grow these in Michigan! His (actually Kris') first orchid was a gift from Don's cousin for a new bay window also in 1986. When it survived, he and Kris slowly expanded their collection for two years. They built an attached 17' X 21' lean-to greenhouse in 1990 which filled much quicker than expected. He spent second sabbatical in Hawaii in 1994 where co-workers thought he was working with shrimp and fish instead of continuing his orchid training at the AOS Judging Center on Oahu. He served two three-year terms as president of the Greater Lansing Orchid Society and was selected as the GLOS Orchidist of the Year the second time it was awarded. Don is a fully accredited orchid judge and Vice Chair of the AOS Great Lakes Center Judging Center. He has been a co-principle investigator on three funded orchid research projects and served on four M.S. committees in horticulture for students completing theses on flower induction in orchids. He has a courtesy extension appointment in Horticulture. His favorite orchids are "P" orchids, as in Paphiopedilum, Phragmipedium, Phalaenopsis, Pleurothallids, Pretty, Puny, and Peculiar. Dr. Garling can be contacted at: Michigan State University-Extension, 220A Natural Resources, East Lansing, MI 48824, Phone: (517)353-1989, Email: garlingd@msu.edu

Holiday Covered Dish Dinner Meeting 6:30 PM

Inside this issue:

<i>This Month's Speaker</i>	1
<i>Dr Don Garling & Holiday Covered Dish</i>	
<i>Minutes of the Last Meeting,</i>	2
<i>Transcript of November's Speaker</i>	3
<i>Jack Webster Show table Awards</i>	4,5
<i>Announcements</i>	6
<i>Speakers for 2008</i>	7
<i>Growing Tips</i>	8
<i>Map and Directions to Sarah P Duke Gardens</i>	8

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

**www.Triangle
OrchidSociety.org**

TOS Officers and Board Members

President

Michael Wagner (919) 929-5977
mjwagner@bellsouth.net

Secretary

Jaimie Graff (919) 530-1806
Graff.Jaimie@epamail.epa.gov

Treasurer

Peggy Bloodworth (919) 732-1639
pbloodworth@entreevous.com

Vice President

Nicholas Plummer (919) 383-1405
nickplummer@gmail.com

Board of Trustees: 2007

Past President

Judith Goldstein (919) 732-7622
Orangegr@earthlink.net

At Large Trustees 2007

Paul Virtue (919) 846-1245
pvirtue@prodigy.net

Paul Feaver (919) 779-1501
cell 337-375
Orchidtrail@yahoo.com

At Large Trustees 2008

Miriam Sagasti (919) 942-9839
miriamsagasto@bellsouth.net

Robin Gurlitz (919) 929--9717
robing@igga.com

At Large Trustees: 2009

Jack Webster (910) 692-3965
jwebster17@nc.rr.com

Bob Myer (919) 469-9149
orthobob90@aol.com

Program Coordinator

Marie Crock (919) 479-5069
bluebirdfield@earthlink.net

Program Chairman

John Stanton (919)468-3611
Orchidtrail.yahoo.com

Minutes of the Last Meeting

President Michael Wagner called the meeting to order at 7:36 PM, Monday, November 12th, 2007. Guests: Martin Frederic, Caroline Bernard, and Debbie & Jerry Bueter were welcomed. The treasurer's report and minutes of the October 2007 meeting were approved.

Announcements:

Member CD's are available at the Welcome Table. Diane Parks discussed procedures for checking out books from the society library.

AOS 2008 calendars are available for purchase from John Myhre for \$9.00

The TOS Nominating Committee for 2008 new officer's and trustees consisted of Jack Webster, Alan Miller, and Judith Shapiro. The committee presented the following slate of candidates:

President – Paul Virtue, Vice-President – Judith Goldstein, Secretary – Bob Meyer, Treasurer – Leo Sagasti. At Large Trustees serving until 2010 – Bob Davidson & David Pickett

There were no other nominations from the floor and the above officers were elected.

Miriam Sagasti & Robin Gurlitz will continue to serve as At Large Trustees until 2008. Paul Feaver & Jack Webster will continue to serve as At Large Trustees until 2009. Michael Wagner will serve on the Board as Past President.

Jack Webster spoke about the society's overseas plant order from Ching Hua Orchids in Taiwan. Plant and price lists were passed out at the meeting. There will be a link on the society website to Ching Hua Orchids website. Plants will be shipped in sphagnum moss and should arrive in early April 2008. Orders need to be turned in at the December 2007 or

January 2008 meeting. There is a 40% surcharge over the list price to cover packing, shipment to Miami, customs, and shipping from Miami to Raleigh.

Alfredo Manrique, one of two legal breeders and exporters of Phragmipedium kovachii, will be the January 2008 speaker. He will bring plants for sale, and a link to his website will be sent to society members for preorders.

The Triad Orchid Society will host its annual orchid show 11 – 13 January 2008. Alan Miller is the point of contact for our society's display.

The December meeting will be a Holiday Potluck with a 6:30 meal and the regular meeting at 7:30. Robin Gurlitz is organizing the potluck.

A list of potential speakers for 2009 was circulated by Paul Feaver. Please return by the December meeting or send to Orchid Trail with comments or suggestions.

Tom & Marsha Jepson and Judith Shapiro were recognized for staffing the Welcome Table. Melissa Bullard was recognized for hosting the Hospitality/Refreshment Table. Speaker Denise Wilson and Jack Webster presented the Show Tables.

Jack Webster selected the award plants.

In the Non-Greenhouse Grown category: 1st Place Lc intermedia by Lee Allgood, 2nd Phrag Memoria Dick Clements 4N x Phrag pearcei by Marie Crock, 3rd Miltassia Shelob 'Red spider' by Chris and Janet Moore.

In the Greenhouse Grown category: 1st Place Cirrhpetalum Elizabeth Ann x Cirr. Rothschildianum by Paul Feaver, 2nd Blc Goldenzelle by Phil Warner, 3rd Cattleya maxima by Paul Virtue.

Raffle tickets were drawn and plants awarded. The meeting was adjourned at 9:37 PM. Bob Meyer, Acting Secretary

Transcript of Last Month's Speaker

Denise Wilson is a remarkable lady. She worked at Fantasy Orchids in Golden, CO for a number of years before retiring to run her own tax service. During that time she expanded and developed her hobby orchid collection in her passive solar home. It was also during that time that she became interested in native species and became active with the local Colorado group, locating sites and counting plants. She took a trip to a Costa Rican preserve and the Denver Orchid Society published a picture of her in a sling-chair, wearing a helmet, waaaay up in the canopy. She enrolled in a Master's program, at the University of Northern Colorado at Fort Collins. Last year she went to Iquitos Peru, to the Reserva Comunal Tamshyacee-Tahuayo, to study plant diversity in disturbed areas. Her presentation to us incorporated photos and a lively description of that trip.

Denise said that their original intention was to only climb 3 – 4 trees, and catalogue the plants they found at various levels on the trunk. In fact, they climbed 16 trees, all of whom were 70 – 90 feet tall. They counted and described all the plants they found, photographed all the plants in situ, gave each plant a number, and identified as many as they could. No samples were removed from the area, though they collected material from some plants for comparisons with herbarium specimens. Their data has been put on a spread sheet, identifying the location of each plant so that future researchers can return to the site to study any changes.

The reserve, Denise explained, is the first state park in Peru. It covers 800 square miles and is governed by the inhabitants of 8 local villages. A council of the local inhabitants control hunting and logging in the area, and approve all proposed commercial projects. They also approved and stipulated the conditions under which Denise's team was able to work. Denise said

that the locals have hunted in this area since Mayan times and now, due to over-hunting, there are very few primates left. One species that does remain is the red or black uakari monkey, which is now protected. Denise commented that the aguaje palm is also threatened in the area, as the natives cut the trees to make baskets, bags, and fish weirs. They also use the leaves for thatch on their homes, and claim medicinal qualities for the bark. The female aguaje palm produces fruit, a critical mainstay of the local diet. However, due to the indiscriminate cutting of the trees, very few female trees remain. The area currently contains a host of other animals including jaguars, manatees, tapir, pink river dolphins, harpy eagles, giant anteaters, giant otters and ocelots.

Iquitos was, at one time, a hub for local rubber plantations. As there is no longer a market for rubber, the plantations have been given back to the jungle. The area is very remote, with no access by road. There is however a local university, which surprisingly has a herbarium. The town also has a number of small businesses, including the local outdoor market where the locals come to sell their products. Denise and her team had to take a four hour boat ride to get to the lodge where they lived during their study. Denise showed photos of the lodge (Amazona Expeditions), a very basic, wood structure with a palm thatched roof built on stilts to accommodate the seasonal rise and fall of the Amazon River. This was truly an upscale accommodation for the area in that they had screens on the windows as well as mosquito nets over the beds.

Denise reported that they climbed two trees daily, using an elaborate system of ropes and knots that took over an hour just to set up. Once up into the tree, they would climb for 20 minutes and then rest to save energy in the hot, humid environment. They took lunch pails with them and ate in the trees as they worked. They wore rubber boots and were constantly on the alert for snakes and wasps. The wasps were so common they carried epipens.

The team was assisted by bilingual local guides, who were considered very prestigious individuals in the community because they could communicate with the outsiders. Denise reported she was impressed by the guide's extensive knowledge of local plants and animals.

(Continued page 7)

Orchidacea

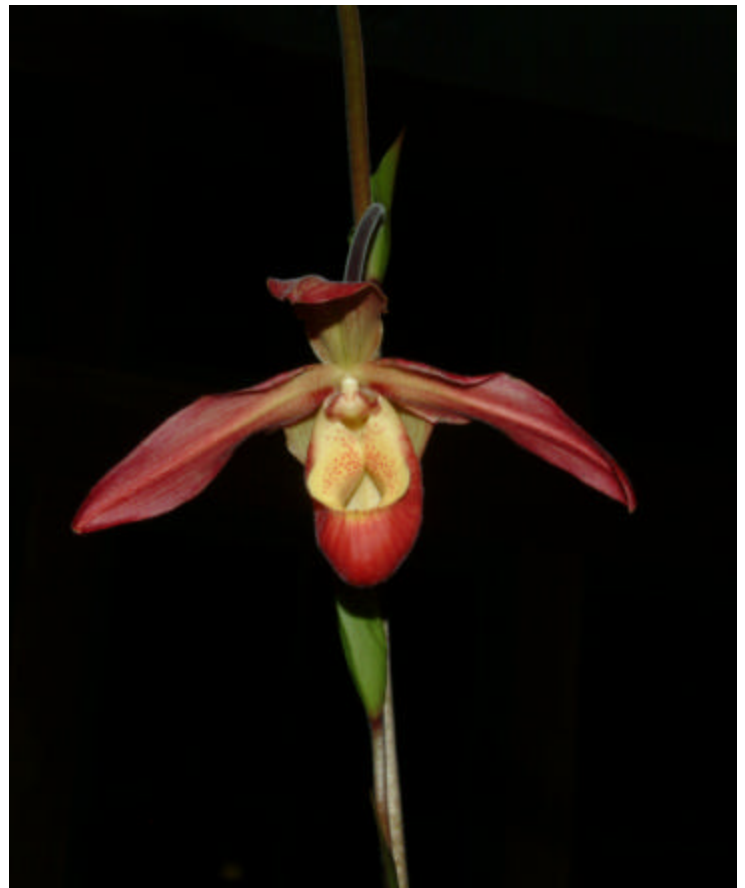


**Jack Webster Awards
Non Greenhouse Grown**

**First Place Ribbon went to Blc.
Marg Putman (*Cattleya interme-
dia* var. *amethystine* x Bl Morning
Glory) grown by Lee Algoood**



**Third Place Ribbon went to Mtssa
Shelob 'Red spider' Chris and Janet
Moore**



**Second Place Ribbon went to Phrag.
Memoria Dick Clements 4n x *Phrag pear-
cei* 'Birchwood' AM/AOS grown by Marie
Crock**

**Jack Webster Awards
Greenhouse Grown**

**Third Place Ribbon went to
Cattleya maxima grown by
Paul Virtue**



**Second Place Ribbon went to
Blc George King 'Serendipity'
grown by Phil Warner**

**First Place Ribbon
went to *Cirrhopetalum*
Elizabeth Ann x
Rothschildianum
grown by Paul Feather**



Announcements:
Greenhouse Closing:
December 15, 2007 10:00
a.m. - 2:00 p.m.

Lifetime member and one of the founders and officers of TOS, Dottie Rice is closing her greenhouse in NW Raleigh at 3920 Maplefield, 27613. She's moving to Winston-Salem to be next to her daughter. Mature orchids of many varieties are for sale. These are her personal collection. She hasn't been selling orchids commercially for some time. Also for sale are new clay pots, wooden baskets, cork slabs, potting media, wire supports, and fertilizer. Used clay pots go free to a good home. For more information email DianaRice@aol.com or call 919-618-2302.

?? **NO Member Sales Tables at the December meeting**

?? **TOS Dues are due for the 2008 year bring your check to the meeting and give to Peggy Bloodworth, or send a check to New Treasurer, Leo Sagasti at 2306 Damascus Church Rd. Chapel Hill, NC 27516**

\$18 per year single, or \$24 per year for two persons living at the same address.

?? **Triad Orchid Society Show in Greensborough, Jan 11—13th** TOS will have a 50 sq foot exhibit. Help is needed for members to put in the exhibit and take down. We need your orchids that would like to exhibit. Contact Alan Miller 969-1612

?? **Bring your order form** to the December or January meeting for the Ching Hua Orchids Spring plant importation order from Taiwan, + 40% for shipping. If you haven't picked up a form they will be available at the Dec meeting. Their web site is www.chinghuaorchids.com.tw

?? **Growers Day and Orchid Raffle participants**

Your free membership in the Triangle Orchid Society is about to expire. If you would like to continue your membership in the Society.... Send your Check to New Treasurer Leo Sagasti at 2306 Damascus Church Rd. Chapel Hill, NC 27516 \$18 per year single, or \$24 per year for two persons living at the same address.

?? Bring your Flowering Orchids to the show table and get up to 5 free raffle tickets

2008 Speakers Schedule

- JANUARY Alfredo Manrique Peru (Club Peruano Orquideas)
 Subject: Peruvian Orchid Habitats
- FEBRUARY Alex Challis New World Orchids
- MARCH Mac Rivenbark (Mac's Orchids-Fort Lauderdale FL)
 Subject: Orchids of the Philippines
- APRIL Mario Blanco (Costa Rica and Univ of Florida)
 Subject: Orchid Flowers and Their Pollinators
- MAY Ron Parsons (Flowershots-Daly City CA)
 Subject: Rarities and Oddities
- JUNE Steven Frowine (author Orchids For Dummies)
 Subject: Basic Orchid Care
- JULY Norito Hasegawa (Paphinatics)
 Subject: Multiflora Paphiopedilums
- AUG Max Thompson (Southwestern College KN)
 Subject: Angrecums and Madagascar Species
- SEPTEMBER Joseph Arditii (Univ of California Irvine)
 Subject: How Orchids Survive In Nature
- OCTOBER Carson Whitlow Cypripedium Heaven
- NOVEMBER Glen Decker (Piping Rock Orchids)
 Subject: Phragmipedium kovachii-Aperuvian Jungle Adventure
- DECEMBER No Speaker (Christmas Parties)

Growing Tips for December

By Courtney T. Hackney

The growth of plants is directly tied to a root system that delivers enough water and nutrients to accommodate the plants needs. While your orchids may not consciously decide to grow additional roots because they need more water, the same effect occurs through plant hormones. What this means to the orchid grower is that the degree to which your orchids allocate energy for root or leaf growth depends on what they have in least supply relative to how much they require.

This is actually an old concept developed by a German soil scientist, called "Liebig's Law". If an orchid is being grown and has less water available than it needs, it will grow additional roots. Conversely, if a plant has an adequate water supply in the presence of lots of light and nutrients more leaves will be added by the plant.

In "the wild", the proportion of roots to shoots reflects what is limiting plant growth. More roots than shoots suggests water or nutrient limitations. Some desert plants have a 20 to 1 ratio of roots to shoots, while under almost ideal conditions in rainforests; this ratio can be almost 1 to 1. What is the ratio of roots to shoots on your orchids?

Most cultivated orchids are epiphytes, that is, they grow attached to trees or rocks and do not have access to soils where water and nutrients are stored

in nature. Epiphytes in general are especially adapted to resisting water and nutrient loss and holding on to what they have, but still reflect a root to shoot ratio more than 1. One additional trick orchids use is to grow slowly to lessen their need for nutrients and water.

Cultivating epiphytic orchids requires us to be sensitive to the balance each plant maintains. Only when that balance is maintained will the plant favor us with exceptional blooms.

The orchids in my greenhouse came from many different growers that grow in all kinds of media, so there has been plenty of opportunity to observe both the quantity and quality of roots and the approximate root to shoot ratio. Phals have been especially noteworthy as a means of comparing roots because they are among the fastest growing cultivated orchids.

One commercial grower was noted for beautifully large, well-flowered phals grown in Promix. However, his phals had few roots when repotted and had a root to shoot ratio below 1 to 1. Obviously, he had mastered the "art" of maximizing nutrients and water availability. His plants did not require additional roots to obtain either water or nutrients, and so spent their available energy on growing more leaves and flowering. Most

amazing was that this was done in a dense medium without suffocating the roots. Most hobbyists have difficulty obtaining this kind of growth without killing roots.

Hydroponic-growers accomplish the same thing, i.e. a low root to shoot ratio, by constantly bathing their plants in water and nutrients in an oxygen rich environment. Remember that roots need oxygen to grow. Phal growers using sphagnum moss also obtain rapid growth and also do so by growing fewer roots. However, their roots are very thick and fleshy because phal roots grown in a constant supply of moisture take on a different form. If repotted in a more open mix, these roots will die.

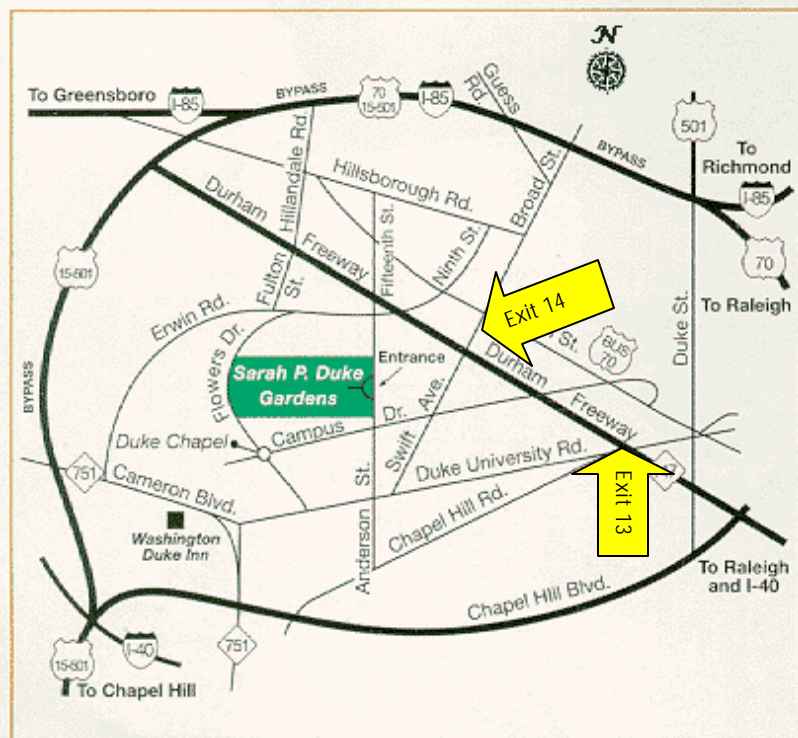
Grow phals mounted, in lava rock or other coarse medium, and there will be more roots than shoots, reminiscent of their natural state. These roots will be hard and flattened for life attached to a tree. Repotting a phal that is adapted for such conditions will lead to the loss of most roots during and immediately after repotting. The result is usually fewer and smaller flowers the following year. The more growing time between repotting and flowering, the better the flowers will be. This is the reason most commercial growers repot after their plants have flowered. Growers that consistently get AOS awards have mastered Liebig's Law.

Currently the locals have little interest in the endemic orchid populations as most are not considered useful to their lifestyle. Denise feels that if the outside world should become interested in the orchids, and a market for them was to develop, this would have a profound effect on the local economy. Currently, the fact that the guides were paid in cash creates problems as the communities function on a basic barter system where money is unknown, and unnecessary. In conclusion, Denise stated that they found 49 orchid species and were able to identify only 15 as none were blooming. Thirty one species she believes had not been collected previously, for they found no matches in the herbarium. She noted that there was definitely a greater number of plants in the undisturbed areas, but that there was a greater number of each species found in the disturbed areas. There was a lesser diversity of all plant materials found in the disturbed areas and they found that other, more adaptable plants were crowding out native plants. Some things remain constant however. Denise reported that the orchids they found high in the canopy were infected with mealy bugs, just like the plants back home.

Triangle Orchid Society Meeting Agenda:	Calendar 2007-2008	Speaker	Topic
7: 7:30 Set Up Show Table and Chairs	December 12th	Don Garling	Magic potions, home remedies
7:30-7:45 Business Meeting, Announcements			
7:45-8:10 Show Table Review	January 14,2008	Alfredo Manrique Peru	Orchids of Peru
8:10-8:30 Refreshment Break			
8:30-9:20 Program			
9:20-9:30 Show Table Awards, Raffle and Door Prizes	February	Alex Challis	New World Orchids
9:30 P.M. Meeting Ends			

Welcome Table**Refreshments**

December	Judith Shapiro	Covered Dish Holliday Meeting 6:30 PM
January		Robin and Josh Gurlitz



From the East. **Exit 13 on the Durham Freeway (#147)** South on Chapel Hill Rd. right on Anderson St. Gardens on left.

From the West. **Exit 14 on the Durham Freeway (147)** South on Swift Ave right on Campus Drive , right on Anderson St. Gardens on left.



Associated with Sarah P Duke Gardens

Alan J. Miller, Editor
 5703 Orange Grove Rd.
 Hillsborough, NC 27278
 (Fax (253) 550-5038
 Phone (919) 969-1612
 Email:Orchidacea @att.net

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!

www.TriangleOrchidSociety.org

Triangle Orchid Society Dues are:

\$18 per year single, or \$24 per year for two persons living at the same address. Mail to
 Peggy Bloodworth 2311 Hermitage Road, Hillsborough, NC 27278