Orchidacea

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

Speaker for Sept 8,2008 Keith Clayton "Taiwan International Orchid Show."

Keith Clayton grew up in Toms River, New Jersey, graduating from Toms River High School in 1962. He attended Delaware Valley College in Doylestown, Pennsylvania, graduating from there in 1966 with a B.S. in Biology. He received his M.A. in Management from Central Michigan University in 1979. He entered the United States Air Force in 1966 and retired in 1986 after a 20- year career as a pilot. He had a second career as a Basic Skills Coordinator with Fayetteville Technical Community College retiring from there in 2006. When he retired, he and his wife Kris moved to the Gray's Creek community about 15 miles southeast of Fayetteville.

Keith became interested in growing orchids around 1989, but his hobby really started taking off after he attended Sandhills Orchid Society's second Growers' day and then joined the society. He couldn't resist purchasing interesting orchids from the many growers who spoke at the society each month. Eventually he built a small greenhouse on the back of his garage and then a larger greenhouse when he moved to the country after retirement. Along the way he started boarding orchids for some folks and sells extra plants and divisions. Keith's favorite orchids are the full sized Cattleyas, but he also likes Phals, Paphs, Phrags, Dendrobiums and just about any other orchid. He does some hybridizing and likes to buy seedlings in flasks and compots to see what happens when they grow up. He is also a member of the American Orchid Society and the International Phalaenopsis Alliance (IPA).

He will present on his 2007 trip to Taiwan for the IPA Symposium and Taiwan International Orchid Show. It will include some interesting tidbits he learned about Phal culture during the two days the attendees spent visiting several large Taiwan commercial Phal growers, and his experience bringing a plant and several flasks through USDA that were in his suitcase when he arrived back in the US.

Keith may be contacted at: 4012 Yarborough Rd., Hope Mills, NC 28348.
Phone: (910) 867-7905. Email: keithclayton@embarqmail.com

Keith will bring orchids for the sales table

Inside this issue:

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

www.TriangleOrchidSociety.org

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Minutes of the Last Meeting

Minutes of the TOS Meeting 8-11-08

The meeting was called to order by President Paul Virtue at 7:30 PM on 11 August 2008.

Dahlia Thompson, a guest of Robin & Josh Gurlitz, was welcomed. Jeanette Massengill and Anesha Johnson, new members from Growers Day, drove in from Clayton to attend their first meeting. The minutes of the July 14th meeting were approved.

Announcements:

Jack Webster, past TOS president and lifetime member, passed away this past Friday, August 8th. Jack was a current TOS trustee and active with the society until the very end. The endurance and success of our society are due in large part to Jack's passion for orchids and his devotion to the TOS. Jack will be greatly missed. His memorial service will be this Friday, August 15th at the Episcopal Church in Southern Pines. An e-mail will be sent out with more details.

The husband of Mabel Hicks, a founding member of the TOS, was seriously injured in a lawn mower accident. Mabel would probably enjoy hearing from members.

Lee Algood and Melissa Bullard were recognized for hosting the Hospitality Table. The homemade chocolate chip cookies and banana nut bread were enjoyed by everyone. Leo Sagasti staffed the Welcome Table and outdid himself selling raffle tickets to anyone who got within ten feet.

The Fall Auction will be Saturday, September 27th at the Lake Crabtree Shelter with a potluck at Noon and auction starting at 1:00 PM. David Pickett is the chairperson/point of contact.

The TOS will put in an exhibit at the State Fair from 16 – 26 October. Robin Gurlitz is the chairperson/point of contact. Blooming orchids and volunteers to water orchids, answer questions/represent the society, put in and take down the display are needed.

Tonight's Show Table was presented by Bob Davidson and Paul Feaver, who also selected the "Jack Webster Award Plants". The Sale Table plants were brought by Linda Thorne from Seagrove Orchids. After a refreshment break, Max Thompson was introduced by Marie Crock and gave his talk on "Angraecums and other Madagascar Species".

Jack Webster Award Plants

In the Greenhouse Grown category: 1st Place Phalaenopsis violacea var. borneo by Olivene Virtue, 2nd Place Habenaria rhodocheila by George Beischer, and 3rd Place Encyclia Lorraine Smith by George Beischer.

In the Non-Greenhouse Grown category: 1st Place Angraecum Lemford White Beauty by Jaimie Graff, 2nd Place Miltonia ? by Lee Algood, and 3rd Place Blc Hawaiian Passion 'Carmela' by Melissa Bullard.

Raffle tickets were drawn and a large number of orchids were won, with the meeting being adjourned at 9:20 PM.

Minutes submitted by Bob Meyer, Secretary.

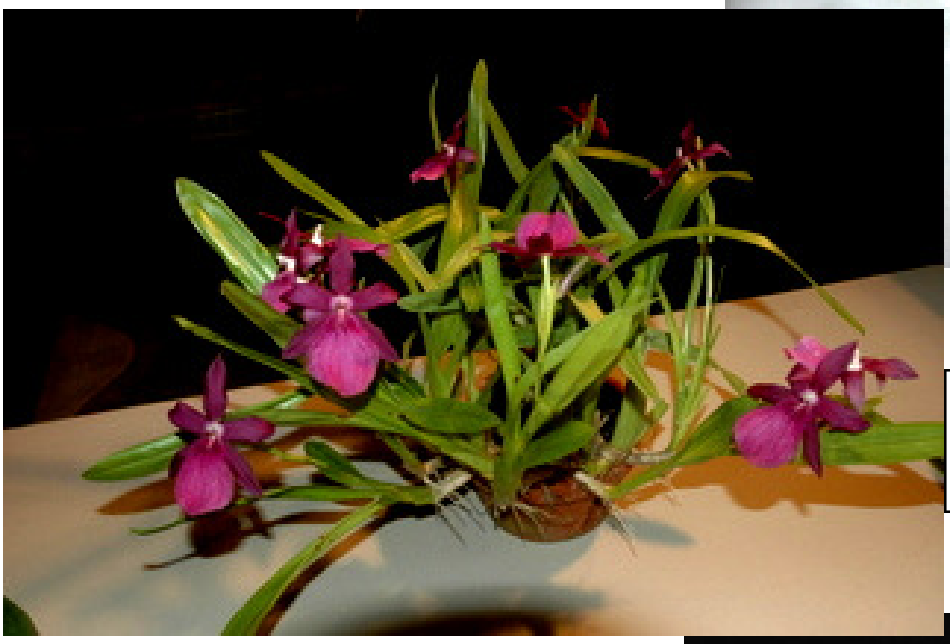
Jack Webster Show Table Awards, Greenhouse Grown

2nd Place *Habenaria rhodocheila* and 3rd Place Encyclia 'Lorraine Smith' grown by George Beischer.

1st Place *Phalaenopsis violacea var. borneo*, by Olivene Virtue,

Jack Webster Show Table Awards, Non Greenhouse Grown

1st Place Angraecum Lemförde White Beauty by Jaimie Graff,



: ***2nd Place Miltonia spectabilis var. moreliana*** **Grown by Lee Algood,**

3rd Place Blc Hawaiian Passion 'Carmela' grown by Melissa Bullard.

Speaker's Notes for July

Mario Blanco is from Puerto Rico and currently working on a PhD program at the University of Florida, Gainesville. He has been interested in Orchids since he was a young boy. While his current studies focus on plant taxonomy and classification, he is obviously also well versed in Orchid culture and growth habits. His presentation focused on Orchids and their Pollinators.

Mario began his presentation with a brief review of some of historical milestones that marked our understanding of this process. This was initially addressed by Darwin in 1862 and then largely ignored until 1966 when L. van der Pijl and Callaway Dodson published their book **Orchid Flowers – their pollination and evolution.** This work sparked a lot of interest in scientific circles and led to a rash of publications. In 1995 N van der Cingel published a two volume compendium of related papers called **An Atlas of Orchid Pollination.**

Orchids, said Mario, are pollinated by either Selfing, as in self-fertilizing with no help from insects or man, or by animals. Unlike many other plants, wind and water play no part. Animal pollinators may include bees & wasps, ants, flies & gnats, butterflies & moths, beetles, or birds. Bats are not known to be involved, nor are thrips, the minute gnat like insects that may infect orchids flowers and do such incredible damage.

Most animal fertilization occurs through bees and wasps who crawl into flowers and exit with pollen attached to their bodies. That this has been going on for 15 – 20 million years is evidenced by the recent finding of fossilized bee remains found in a piece of amber from the Dominican Republic. The bee in this piece of amber can be clearly seen to have multiple pollen deposits on its back. Today, the pollination process has not changed -- insects continue to carry pollen away from one flower and deposit it onto another. Bees visit flowers searching for nectar, their preferred food. To get to the nectar at the base of the spur the bee has to crawl into the flower, frequently falling into a pouch filled with sticky liquid. Because their wings have become wet, the bees can't fly away. To escape, the bee must crawl up the labellum, clawing his way past the pollinia. Merely brushing past the pollinia is generally sufficient for the plant to release its pollen, which then becomes stuck to the bees back, or to his legs or feet. The bee then moves on to the next flower, again searching for nectar, and repeats the process of falling into the pouch and collecting the pollen on its back or legs. As the bee enters the flower, the pollen collected on its back or legs brushes against the stigma and adheres there, relieving the bee of its load, but also freeing the bee to collect even more pollen and move on to the next flower to deposit another load of pollen. Collecting pollen and depositing it is integral but unwitting part of the bees food seeking behavior.

In exchange for the crawling up flower stems, or into the throats of open flowers, insects are rewarded in several ways. Occasionally they actually receive nectar. More often they receive fragrance, which they store and use to attract their mates. They can turn it into a liquid that they use to feel their young. Orchids may also reward insects with oils, resins or wax, as well as pseudo pollen, which is also used to attract mates or feed larvae. Orchids, however, do not share pollen as food because the pollen is required for pollination – and ultimately for the survival of the species.

Often Orchids entice insects into or onto their flowers through very deceptive mechanisms. They may imitate breeding insects for example. As it is generally the male bee or other insect that pollinates flowers, orchids have evolved to resemble female bees. Male bees are easily misled and will land on the flower and attempt to mate. Other orchid flowers resemble breeding sites, enticing insects to lay their eggs on the flower. In either case, the bee becomes the recipient of a load of pollen through their contact with the flower.

No other group of plants uses these techniques to achieve pollination. However, there are still numerous species of Orchids whose pollinators are not know. We can only guess at some of these mechanisms based on unusual appendages or cavities that are a part of the flower. Because many Orchids, and their pollinators are disappearing as a result of ecological disruptions, it is critical that we learn as much as possible as quickly as we can, in order to save these plants.

Mario stressed that individually we do not need to be biologists or scientists to add to this knowledge. We simply need to pay attention and observe the insects that we see around our blooming plants. If we see an insect collecting pollen we should document the event in detailed notes or photograph it if we can. We should count the number of visits and the time the insect spends on each flower. If we can, we should document the actual removal of the pollen by the visiting insect or how the pollen is deposited onto the stigma of the receiving plant. Mario encouraged each of us to become aware, document these events, and then share this information with fellow hobbyists and with the scientific community. *Transcript by J*oy Lemieux, Sandhills Orchid Society,

Speakers Speaker Notes for August– Dr. Max Thompson

Max has been teaching Biology at Southwestern College in Kansas since 1967. His impressive resume spans five decades and includes travel and research to the Arctic (where he did research on penguins), Taiwan, the Philippines, Borneo, New Guinea and Pakistan. He currently grows 2000+ orchids in the greenhouses at Southwestern College. He is an active hybridizer, and an AOS judge.

In 2003 Max was invited to join a friend who was organizing a trip to Madagascar, that exotic island off the eastern coast of Africa. There, he found an impoverished nation with no infrastructure. The roads were terrible to nonexistent so travel was difficult. The most reliable mode of transportation was by air. Never-the-less, he managed to visit five national parks or preserves with unique orchid habitats, from the northern rainforest areas to the dry dessert conditions of the south.

Max was totally blown away by the fantastic plants and animals he saw. He's a dedicated bird watcher so he took along his scope. Not only did he see remarkable bird species, he found that the scope was very useful for locating orchids that were growing in the higher canopy. Although the tour guide initially told him he must focus on the birds, not the orchids, Max soon had all the other members of the tour lining up to look at orchids through the scope. They were also able to observe several varieties of lemurs. Max demonstrated how one species moved around by standing upright and hopping from place to place (easily the high light of the presentation!)

As an orchid lover, Max and his group did several night time jungle walks. He said that he was simply overwhelmed by the variety and density of the plants they saw. And of course, there was the added benefit of actually smelling scented Angraecums and Aerangis. He listed fifteen species that they actually found blooming.

Back in his greenhouse at the College, Max grows a number of the African species he was so excited to see in the wild. Angraecums and Aerangis, he said, like bright light and high humidity, 60% being optimum. They can be epiphytic, lithophytic, or terrestrial. They need good air – movement and don't like to become dried out. They flower best when root-bound or tight in a pot. Often they do best if mounted or grown in a basket. Angraecums and Aerangis appear to attract very few insect, a huge plus for any grower.

If you're traveling thought Winfield Kansas, stop and look up Max. You might even get a tour of the greenhouses!

Growing Tips for September

By Courtney T. Hackney EMAIL Hackneau@comcast.net

"And the rains came…", but not for 40 days and nights, at least not yet. Orchid growers in Florida experienced many days or torrential rainfall from Tropical Storm Fay, but similar weather events, i.e. many days of rain or gloom can happen anywhere or any time of year. Of course, orchids growing in Nature also experience extreme events. The difference, however, is that your orchids have been put into pots, grown in material that confines their roots, and locked in a relatively contained atmosphere.

Compare a "free range" orchid to its citified relatives and it is easy to see why the same event could lead to such different results. Days of rain and wind would soak the roots and leaves of a wild orchid, bringing bits of new leaves and twigs where they can rot and release nutrients. The movement of wind and water across the roots and leaves would wash rotten materials away and remove fungal and bacterial spores from the plant.

Orchids in a greenhouse are likely in a closed environment where humidity is high and air movement nil. Most greenhouses vent during the day when exhaust fans rapidly replace the air in a greenhouse. When venting does not occur, the air becomes filled with bacterial and fungal spores that settle on orchid leaves and in pots. No matter how clean and neat your growing area; there are plenty of bacteria and fungi around to infect orchids.

. Indoor growers need to pay attention too, as the same phenomenon can occur when you water your orchids and your light source stops working for a day or so.

While my immediate thoughts relate to a hurricane, the same basic conditions occur during winter storms or even just during a series of very cloudy days and little sun. Your pampered orchids have roots in pots that just barely have enough air space to allow oxygen to the roots. In a greenhouse full of orchids and other plants, oxygen levels actually decrease too, making roots even more susceptible to death.

Plants rarely die from low oxygen levels, but parts of plants, especially roots do die where they are very susceptible to invasions by bacteria and fungi.

Plants, including orchids, use oxygen. It is only when light is striking leaves that photosynthesis leads to the production of more oxygen than the leaf uses. Fungi and bacteria love high humidity and low oxygen levels and so every grower should expect problems after prolonged periods of damp, humid conditions.

About the only time I recommend the application of a broad spectrum fungicide/bactericide as a preventative is when a major event is going to occur or right after it occurs. Indoor growers need to pay attention too, as the same phenomenon can occur when you water your orchids and your light source stops working for a day or so. There are many products that can be used. My favorite is Kocide, an old copper-based product. Kocide leaves a light blue sheen on leaves so you know it has been applied. My strategy is to apply as soon as possible after the event at half strength and let the orchids and greenhouse vent and dry thoroughly before watering. Rarely, do I experience a disease problem. Physan is another, readily available product that many hobbyists use. Some tender leaves can be damaged by the recommended dose for orchids, but the half strength dose rarely causes any problems. It is also a surfactant and helps move water off leaves and stems. Killing disease spores, increasing air movement, and quickly drying your orchids and greenhouse is the best way to prevent problems after a major environmental event.

TOS Fall Auction will be at the Beech Pavilion at Lake Crabtree Park, Morrisville. It's an ideal location for the Fall Auction on Saturday, September 27th. Covered dish luncheon at 2 noon and auction to start at 1PM. Bring your donations of divisions of orchids you haven't been able to flower. Maybe other members can. Now is the time to find a home for plants you have been summering outdoors and won't have room in the green house.

It's just a 1/2 mile into the park from Aviation Parkway, just south of I-40 and the Airport. There is ample parking (50 spots), 14 picnic tables under a large shelter that holds about 100 people, and an electrical outlet. The bathrooms are a short walk away, from the tree covered pavilion. There is an area of 4 parking spots that is yards away from the pavilion. We will be able to use that as an unloading/loading area.

Triangle Orchid Society Meeting Agenda:

7: 7:30 Set Up Show Table and Chairs

7:30-7:45 Business Meeting, Announcements

7:45-8:10 Show Table Review

8:10-8:30 Refreshment Break

8:30-9:20 Program

9:20-9:30 Show Table Awards, Raffle and Door Prizes

9:30 P.M. Meeting Ends

Calendar 2008	Speaker	Topic
September	Keith Clayton Sandhills Orchid Society	Taiwan Orchid Show
October	Carson Whitlow	The World of Cypripediums
November	Glen Decker Piping Rock Orchids, Galloway, NY	Phragmipediums

Welcome Table **Refreshments**

September 8th	Andrea and Bill Erwin	Susan Jackson and Pam Shuffler
October 13	Debby and Jeremy Bueter	Marsha Tai.

ORCHID SOCIETY
TRIANGLE
NORTH CAROLINA

Associated with Sarah P Duke Gardens

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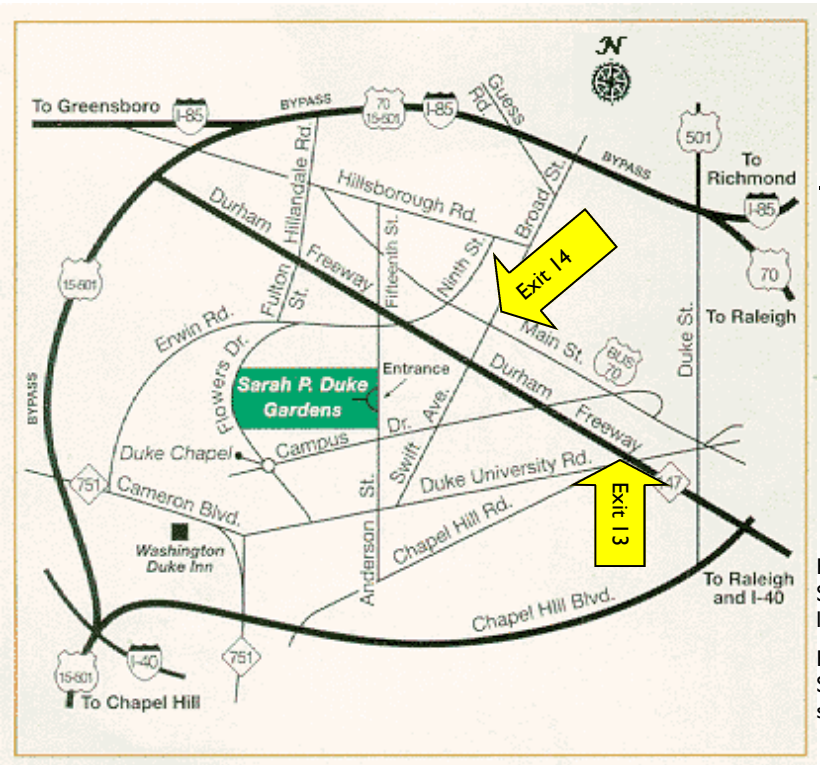

The Triangle
Orchid Society meets at the
Sarah P. Duke Gardens, Durham, NC
The Second Monday of the Month
at 7:30 PM
Visitors are Welcome!

www.TriangleOrchid Society.org

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.

Triangle Orchid Society Dues are:

$18 per year single, or $24 per year for two persons living at the same address. Mail to: Leo Sagasti, Treasurer 2306 Damascus Church Rd Chapel Hill NC 27516