



ORCHIDIST

GREATER NORTH TEXAS
**ORCHID
SOCIETY**

AUG

Next Meeting:
August 6
Emily Quinn

SUMMER BLOOMERS

Emily Quinn is our speaker and she will speak about Summer Bloomers. Emily is an Environmental Geologist that retired to raise a family. She was introduced to orchids when she went to the (now closed) firm of Orchids and Ferns in Houston, Texas to acquire some ferns. She left with both ferns and orchids. The ferns died, the orchids didn't. Thereby firmly setting hook and beginning a long time fascination with the exotic flowers.

Today she juggles four children, a husband, and a greenhouse with the local AOS judging center for which she serves as Training Coordinator. Emily has been an accredited judge for several years. She has a predilection for slippers, red and blue phals, and a soft spot for the small botanicals. The greenhouse contains the broad spectrum of species and hybrids of a person who never saw an orchid she didn't like.



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PRESIDENTS MESSAGE

Judy Cook

We had a discussion about talking to folks at the Arboretum regarding putting in an orchid greenhouse, and whether we would want to be supportive of that in terms of providing help and plants for them, and most people were interested, although at least one member had a bad experience with them suddenly not holding up on their end of things.

We had a panel discussion led by Linda, Emily and yours truly and I hope it was as informative and helpful for everyone as it was fun for us. I look forward to Emily's presentation for August. If there are any particular kinds of things you would like to have programs on, please don't hesitate to talk to either Barbara McNamee or myself about your interest or a speaker you might think is particularly good. Just guessing from things in bloom in my greenhouse that we should have a really good show and tell again in August despite the fact we are now getting hit with the long hot days of summer.

Judy

It was great to see so many of you show up on a holiday weekend and show up with such a wonderful array of flowers – especially the Cattleyas.



MINUTES

Kathi McKenzie

Judy started the meeting at 2:40 p.m. with 32 people in attendance, including 3 visitors. Our format was a Q&A panel, with experts Judy, Linda Horton and Emily Quinn. Questions ranged from where to buy orchids online (RF Orchids, Santa Barbara Orchids, SVO, Andy's Orchids, Marble Branch Farms and Orchid Mall were all mentioned) to questions regarding specific grower concerns.

Nancy announced the plant table winners – we had 55 plants this month, including 21 cattleya. The tables were lovely! Judy conducted the plant raffle. The meeting was adjourned at 4:30.

PLANT TABLE

Nancy Cropp

July 2, 2017, Plant Table Judging Results

Judges: Lorna Kissling & Emily Quinn

CATTLEYA ALLIANCE – 21 plants

Blue – Encyclia Floribundum

x linearfoliodes – Kathi McKenzie

Red – C. Mishima Luster 'Jean'

– Kathi McKenzie

White – Soph. Arizona – Judy Cook

DENDROBIUMS & OTHERS –

8 plants

Blue – Gram. scriptum – Judy Cook

Red – Bulbo. carunculata

– Kathi Halverson

White – Bulb. A-doribil Candy Ann

'Cindy' – Linda Horton

ONCIDIUMS – 7 plants

Blue – Brassia (edosa x Edvah Loo)

– Kathi Halverson

Red – Alcra. Hilo Ablaze – George Bogard

White – Miltoniopsis Andrea Wert

– Kathi Halverson

PAPHS & PHRAGS – 5 plants

Blue – Paph. Harold Koopiwitz

– Judy Cook

Red – Paph. Magic Lantern – Vinh Du

White – Phrag. schlimi – Kathi Halverson

VANDAS & PHALS – 14 plants

Blue – V. unknown – Kathi Halverson

Red – Phal. violacea 'Indigo' – Vinh Du

White – V. neofalcata 'Benisuzume'

– Barb McNamee

SPECIES OF THE MONTH

Gram. scriptum – Judy Cook

V. neofalcata 'Benisuzume'

– Barb McNamee

Aeranthus grandiflora – Linda Horton

PEOPLES CHOICE

Encyclia floribundum x linearfoliodes

– Kathi McKenzie

55 total plants this month!

Good job, growers!



ORCHIDS 101

Kathi McKenzie
& Lorna Kissling

Orchids 101 classes are tailored to the beginning orchid grower. I get asked all the time:

“Why Won't My Orchid Rebloom!”

We will meet in the greenhouse at 2:30 for 30 minutes so we can discuss that and also get all questions answered in time for the meeting at 3:00.



DALLAS JUDGING CENTER

AOS Dallas Judging Center July 8, 2017

Nine plants entered for consideration, two awards given:

Phal. Tassanee Jongdomkerng 'Pylo'

(equestris x appendiculata)

AM 81 points

owner: Big Leaf Orchids

(Peter Lin), Southlake

Phal. Pylo's Dragon Fire 'Neon'

(George Vasquez x Dragon Tree Eagle
'DT #1')

AM 84 points

owner: Big Leaf Orchids

(Peter Lin), Southlake



THE ENVELOPE PLEASE ... AND THE WINNER IS... HEXALECTRIS WARNOCKII



ORCHID CONSERVATION UPDATE

by Charles
and Trudy Hess

additional photography
by Karl Varian

All over the world we find people who are willing to volunteer their time to brave the elements and get their hands dirty in working to preserve and protect habitats of native species. My fellow orchid enthusiasts will be happy to learn that North Texas Master Naturalists have been actively engaged in orchid conservation efforts for years. This year I once again took part in the annual native orchid survey for our area, and it was a richly rewarding experience.

Even on my first survey day on June 20th this year I could tell that it was going to be a good year for the *Hexalectris warnockii*. On that day alone, we tagged over 120 specimens without breaking a sweat. The part about the 120 specimens is true; the part about not breaking a sweat – not so much. This is Texas, after all, and it did get a bit hot later that morning, but that is the burden of orchid hunters throughout history. Don't try to tell me that those hunters of the past had groomed trails with mileage markers along the way, knowledgeable guides, and friendly indigenous people. On our outing, though, we are happy to report the indigenous urbanite tribes we encountered on the forest trails were all friendly. They mostly just ignored us as

they jogged past with wires hanging from their ears.

Our knowledgeable guide and team leader from the North Texas Master Naturalists organization was Stephanie Varnum, who has 14 years experience doing this survey with her late husband Jim. Stephanie safely led this year's team, wrapping up the final tagging phase of the season on July 7. The final count, was 323 H.



Charlie placing a for a new
thin spike to the left

warnockii out of a grand total of 447 orchids. This year's *H. warnockii* count, according to her analysis, is above average. The balance included 91 *H. nitida* (low), 30 *H. spicata* (high), and 3 *H. arizonicas* (low). The last phase of



Karl tagging his find



the survey will be on July 21 when, we will break into teams and collect each of the ribbon tags and measure the height of each find. This information



Yellow Hexalectris warnockii

will be sent to Dr. Marcy Brown Marsden, who has contributed to several published reports on Texas orchids.

The success of this venture was surely enhanced by the efforts of brave new explorers from the Greater North Texas Orchid Society (GN-TOS), Karl and Carol Varian, who joined us on the last two days of the survey. Carol's notable contribution was that she spotted a somewhat rare yellow version (forma *lutea*) of the *H. warnockii*, glowing in the sunlight about 3 meters from the trail. Talk about good eyes! Not to be outdone, Karl spotted one of the few *H. arizonicas* found in the survey. I later learned that *H. arizonicas* are quickly identified as the only one of the four native species that grow up to 80 centimeters in height.

We are lucky to have an array of terrestrial orchids, especially the *H. warnockii*, in Dallas county. The *H. warnockii* is named after Barton Warnock¹, who explored the western part of Texas in the Trans Pecos botanical ecoregion. If you read the history behind the 1960 selection for the official flower of the Southwestern Orchid Growers Association (SWROGA) you would think that the *H. warnockii* is found only in that western part of the state. At that time, it probably was. But fast forward to 2008, and the *Field Guide to the Wild Orchids of Texas* by Paul Martin Brown shows ten coun-



ties in Texas having *H. warnockii*. Jim Varnum's guide sheet used for this survey show botanical drawing of the *H. warnockii* from the *Illustrated Flora of North Texas*, (George M. Diggs, Jr., Barney L. Lipscomb, Robert J. O'Kennon) BRIT, dated 1999. It would be interesting to locate the BRIT's herbarium samples dating back to the 1937 specimen collected by Warnock himself to see when later locations were added to the Texas map.

Trivia: The author above (Paul Martin Brown) credits the discovery of *H. grandiflora* in Dallas to the work of this survey team started by Dr. Marcy Brown Marsden and organized by Jim and Stephanie Varnum.

We all owe gratitude that the Dallas chapter of the Texas Master Naturalists continue to conduct this survey year after year, and that their efforts contribute to the knowledge of native orchids of North Texas.

* * *

¹ Barton Holland Warnock (1911–1998) was an American botanist and leading authority on flora of the Trans-Pecos area and northern Chihuahuan Desert. Born in Christoval, Texas in July 1911, In 1946 Warnock joined the faculty of Sul Ross State College and a year later was named biology department chair. He worked there for more than 50 years until retirement, during which he continued collecting various plant species in the region. He wrote three books and was working on a fourth.

After his death, the Sul Ross science building was named after him. The Barton Warnock Environmental Education Visitor Center, near Lajitas in Presidio County, Texas, also bears his name and houses his extensive collection of plant specimens. An endemic genus of plants Lamiaceae (*Warnockia*) is named in his honor.



CALCIUM AND MAGNESIUM — THE OTHER MACRONUTRIENTS

by Sue Bottom, sbottom15@hotmail.com
in St. Augustine Florida.
Used with permission of the author.

My understanding of what is and what should be in the fertilizers we use for our orchids has evolved over time. First you learn that the three letters on fertilizer container represent the percentage of nitrogen, phosphorus and potassium present in the fertilizer. Then you

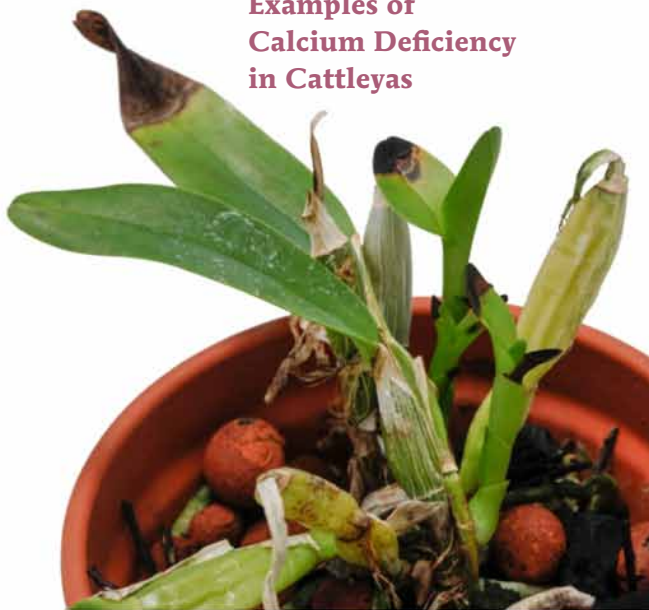
get treated to a missive on the nitrogen forms, the nitrate and ammoniacal nitrogen that are available to your plant and the urea nitrogen that is not easily used by your orchid. Then you learn about micronutrients, the trace amounts of iron, copper, boron and all the rest.

The current buzz is about the calcium and magnesium required for your plants to thrive. They may be present in your water supply in adequate amounts although you will only know this if you have your water tested or if you learn to

recognize the signs of their deficiency. Calcium and magnesium are considered macronutrients along with nitrogen, phosphorus and potassium. If you remember your high school chemistry, calcium and magnesium are both listed in the second column of the Periodic Table so they tend to react similarly in chemical reactions. However, they are absorbed and used in your orchids very differently.

Calcium and Your Orchid.
You know that we people require

Examples of Calcium Deficiency in Cattleyas



You might think your plant has black rot, but this problem is physiological rather than pathological



The most rapidly expanding tissue is affected first, such as new growths and leaves

calcium for healthy bones. Orchids use calcium similarly, to build cell walls among other things. It is absorbed through the root tips and pulled through the plant via the xylem during the transpiration process, being transported from the roots to the leaves and newly growing parts of the plant. It is phloem immobile, so it cannot be translocated from older leaves to newer leaves. Thus calcium deficiency will first appear at the most rapidly expanding tissue, like new growths and leaves. Calcium deficiency occurs when there is rapid plant growth in the absence of sufficient calcium. If you like fresh tomato sandwiches from your garden, you've learned that calcium deficiency is what causes blossom end rot in tomatoes. Cattleyas are the orchids most prone to calcium deficiency, particularly those that grow very rapidly during the warm, sunny, moist summer season. You may mistake the symptoms of calcium deficiency for the dreaded black rot that can plague your cattleyas during the hot season. But this tissue damage is not from water molds, it is caused by insufficient calcium to produce new tissue. Roy Tokunaga of H&R Nurseries reports that supplying sufficient calcium to your plants will not

only reduce the incidence of black rot but may even protect the plant from infection by the water molds that cause black rot.

Magnesium and Your Orchid.

Your plants use magnesium to produce chlorophyll, which is used in the photosynthesis process as well as other metabolic processes. Like calcium, magnesium is absorbed by the roots and carried through the plant in the xylem during normal transpiration. Unlike calcium, magnesium can also be carried in the phloem that transports organic nutrients like sucrose throughout the plant wherever needed. This means the magnesium can be translocated from older leaves to newer leaves. Thus magnesium deficiency will first occur in the older leaves that are sacrificed for the new growth.

Calcium and Magnesium Supplements.

There are lots of options for supplying additional calcium and magnesium to your orchids, from prepackaged fertilizers to special additives. You can also top dress pots with powdered dolomitic lime that will supply both calcium and magnesium to your plants although it may also raise the pH of your potting mix. Gypsum

(calcium sulfate) is an alternative for supplying calcium without raising the pH of the mix. There are controlled release fertilizer formulations that also contain calcium and magnesium. You can add water soluble supplements like calcium nitrate and Epsom salts, though you would never

add the calcium and magnesium supplements concurrently because they will react and precipitate into a sludge. The amount of calcium and magnesium supplied by several supplements is given in the table. I am not aware of any calculation for estimating the amount of calcium or magnesium

Examples of Magnesium Deficiency



Cattleyas grown in bright light with insufficient magnesium may exhibit mottling indicative of chlorophyll damage



Leaves may turn a reddish purple after exposure to cold if they are magnesium deficient. Correct this with a megadose of Epsom Salts (1 tsp/gal).

Some Water Soluble Supplements for Supplying Calcium and Magnesium

	Addition Rate (tsp/gal)	Nitrogen (N)	Concentration (ppm)	
			Calcium (Ca)	Magnesium (Mg)
Peters Excel	¼	49	16	6
Cal Mag Special	½	97	32	13
5-5-15 5% Ca 2% Mg	1	194	65	26
Calcium Nitrate	¼	50	62	–
	½	101	124	–
Epsom Salts (Magnesium Sulfate)	1/8	–	–	16
	¼	–	–	33
	½	–	–	66
	1	–	–	130
	3	–	–	395

Fertilizer Regimen to Provide Full Suite of Plant Macronutrients

	Target Nutrient Levels (ppm)
Nitrogen	40 - 100
Phosphorus	10 - 20
Potassium	40 - 100
Calcium	40 - 80
Magnesium	20 - 40

that is released to your plants from top dressing with timed release fertilizer.

The amount of calcium and magnesium present in your water will define how much supplementation is required. You can send a sample of your water to JR Peters for analysis and they'll throw in a fertilizer recommendation or you can send a sample of your water to a laboratory like QAL for analysis, at a cost of less than \$40. Approach your orchid society for sponsoring water tests on local water supplies so a general recommendation can be made for what fertilizer regimen is optimum in your area. In St. Augustine, our shallow well water is very alkaline, high in total dissolved solids and calcium but has very little magnesium. I use pond water during the warm season. It is a mixture of well water and the more pure rainwater so it is low in alkalinity, dissolved solids, calcium and magnesium.

The water in our area is calcium rich and magnesium poor, so using Epsom salts should be an integral part of our fertilizer regimen. I set a target nitrogen level of 50 ppm suitable for cattleyas, and use additional timed release

fertilizer on my heavy feeders like the catasetums. In the growing season when watering using the low alkalinity pond water, I use about ¼ tsp/gal of cal mag fertilizer plus a little less than 1/8 tsp/gal of Epsom salts. During the winter resting season when watering with the warmer, highly alkaline well water, I use 1/8 tsp/gal of 21-5-20 fertilizer and almost ¼ tsp/gal of Epsom salts. I fertilize every time I water, and I should be more rigorous about flushing the pots monthly with fresh water.

Once you know the calcium and magnesium content of your irrigation water, it is easy to tailor a fertilizer regimen for your specific conditions. For those of us in Florida with highly alkaline, high calcium and magnesium deficient water, fertilize with equal parts of a balanced fertilizer like 20-20-20 or 20-10-20 and Epsom salts. Your plants will reward you with increased vigor and loads of flowers.

SOCIETY HISTORY

The history of the GNTOS goes way back. In the mid-40s there were only three orchid growers in town: Eli Sanger of Sanger Brothers, which was Dallas' biggest department store at that time; Roy Munger, known for Munger Place and Munger Street, and Percy Larkin.

Margie Corn, a garden columnist, was the source of any orchid information they could find and she gave their names to a woman running Hardy's Seed Company, Mrs. Moses. They gathered at her house one day in 1946 and it was Mr. & Mrs. Polhemus, Mr. & Mrs. Roy Carter, Homer Baldwin, Percy Larkin and a young man from Waxahachie named Costalanus. They decided they would apply for AOS membership and started receiving the Bulletin and meeting monthly. More and more people started to show up and they elected Percy Larkin, Jr. their first president in 1947. This was the North Texas Orchid Society.

They held their first show in 1950 at the Marsh Kaiser Fraiser automobile agency on Ross Avenue. Jack Morris was president of the society and Homer Baldwin sent out invitations to everyone who grew orchids in Dallas. Invitations also went to the big orchid firms who would send representatives from around the country to the show. They had everyone sign a book that came to that show

There was an incident

that year that upset several members of the North Texas Orchid Society, so several members chose to leave and form another society calling themselves the Dallas Orchid Society. Percy Larkin was one of the members who left to form the Dallas Orchid Society. This society was never sanctioned by the AOS.

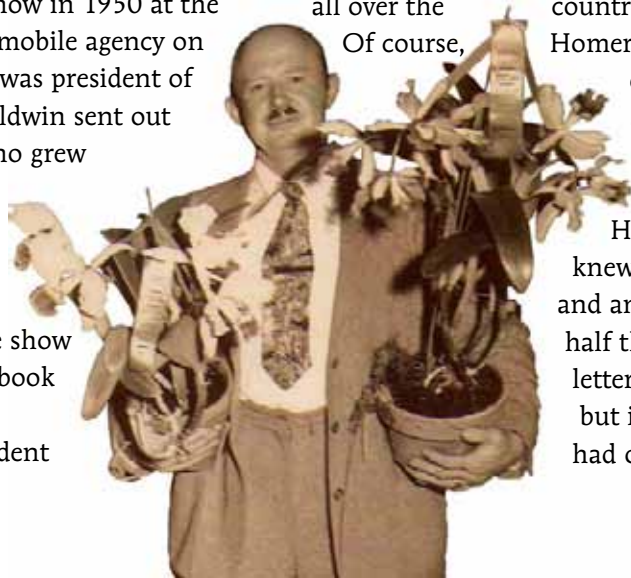
The following year with much encouragement from Homer Baldwin, most of the members from the Dallas Orchid Society came back to join the original society.

Later, they decided to become affiliated with the American Orchid Society so they wrote a Constitution and Bylaws for the society. On March 19, 1954, they were issued a charter by the AOS as the Greater North Texas Orchid Society.

They put on a show in the Dallas Garden Center but there weren't enough plants in the area so the bulk of the show was made up of boxes of blooms sent to them for free from commercial growers. They'd get five, six, or seven boxes of flowers from different growers from all over the country - even overseas.

Of course, Homer had mailed cards to everyone who had an ad in the Bulletin to achieve this.

Fortunately for Homer, Lena Baldwin knew how to type and she and another woman spent half the night writing letters on two typewriters but it worked and they had orchids for the show.



MEMBERSHIP DUES

GNTOS membership dues are paid yearly by January 31, in order for you to be listed in the published Yearbook.

- \$30.00 - New or Renewing Member (individual)
- \$15.00 - Additional Member (each additional person in same household)

Please mail completed form with payment to:

Kathy Halverson
1922 Baylor Drive
Richardson, TX 75081

Make check payable to GNTOS.

New Member Renewing Member

Name (#1): _____

Name (#2): _____

Address: _____

City: _____

State/Zip: _____

Phone: _____

E-mail (#1): _____

E-mail (#2): _____