

Next Meeting:
August 3
Meeting:
Tom Mirenda

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Abbondanza! The Orchids of Sicily

Tom Mirenda has been the Orchid Collection Specialist at the Smithsonian Institution for the last 10 years. There he cares for and curates an extremely diverse collection of orchid species and hybrids from all over the world. His position includes developing and producing huge educational exhibits using the collection plants that last up to 4 months, and visited by hundreds of thousands of visitors.

Trained originally as a Marine Biologist, Tom made the switch to plants and orchids in his late 20s while living in Hawaii. Since then he has worked with orchids at NY Botanical Garden, Brooklyn Botanic Garden and an extensive private collection at Greentree Estate in Long Island. Tom was also the floor manager at the New York International orchid Show for many years during this period. For the last 6 years, Tom has contributed two columns each month for *Orchids* magazine and is developing a new book based on those writings. Tom travels frequently around the US and internationally making presentations to diverse audiences, from scientists to the general public, about orchid ecology, pollination biology, strategies for orchid conservation. He is passionate about seeking collaboration between the worlds of Botanic Gardens, the hobbyist community, commercial growers and scientists to work together toward the goal of protecting orchids and their habitats. Currently working on a project to coordinate and centralize North American orchid conservation efforts, Tom hopes to extend the influence to other parts of the world where orchids are imperiled.



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I spent my July 4th in Colorado where it was cool, so I missed our auction. Those that attended bought some really nice varieties donated by our members. Sorry that I couldn't be there to bid. Thanks to all who donated snacks and plants, and to our auctioneer. I am

Presidents Message

sure that there were plenty of laughs.

The 100 degree days and hot sun will take a toll on your orchids, so watch them closely

for signs of stress. Cut back fertilizer and water copiously.

Please bring friends to the meeting and encourage them to join GNTOS as we need active members. Bring your plants for the plant table, and bring lots of money for raffle tickets. We need to raise sufficient funds in preparation for our show next spring.

Gerry

Calendar

by Mary Heifner

August 3	<i>Tom Mirenda</i>	Miniature Orchids
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September 7	<i>Chaz Smith</i>	Rupiculous Laelias
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October 5	<i>Janet Lambon</i>	Orchid Virus Detection & Prevention
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November 2	<i>Mark Reinke</i>	Dendrobiums
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December 7	<i>Auction & Christmas Party</i>	
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January	<i>Dotty Woodson</i>	
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March	<i>Jason Fischer</i>	Phrags/Paphs
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April	<i>Tom Harper</i>	Specialty Phals
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August	<i>Alan Koch</i>	Mini Catts
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This calendar is as accurate as we can make at the time the newsletter is published. However changes often happen that are beyond our control. If you wish to hear a specific presentation please check just before the meeting takes place to verify that the speaker is still scheduled.

Dallas Judging Center

Nancy Cropp

AOS DALLAS JUDGING CENTER JULY 12, 2014

Two plants submitted for consideration, no awards given.

The Dallas Judging Center meets on the second Saturday of every month.

The next meeting is August, 9 at the:
Garland Senior Activity Center
600 West Avenue A,
Garland, TX 75040

11am

Everyone is welcome.

3



Previously submitted plants for judging:

Above: Phal (Hannover Passion x Tabasco Tex):
owner: Mier Moses

Left: Paph. Krulls Pride, owner: Mier Moses



Previously submitted plant for judging:

Phrag (Tall Tails 'Tail-full'
x Mem. Dick Clements 'Cardinal')
owner: Judy Cook

Orchids 101

Kathi McKenzie
& Lorna Kissling

**This month
we will have a
Q&A.**

ORCHIDS 101 classes are tailored to the beginning orchid grower. Sometimes there is a specific topic and other times it might be all Q&A.

It will be an informal discussion so come and share your tips and tricks so we may all benefit from everyone's ideas.

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

Please submit articles, information, or suggestions for publication in our newsletter. No really.

Newsletter

I'm serious. Help me out here. I'll take photos, stories whatever. I will give \$1 to the first person who asks for it at the meeting. Send submissions to me at: david@gouldcreative.com

Cattleyas Around the Year

Gene Crocker

Cattleyas remain the most beautiful of all orchids but usually flower for a short period each year. It is possible to have flowers the year around by choosing species and their hybrids that have fixed flowering periods. This series will help you build your collection to achieve that goal.

ABOUT THE AUTHOR

Gene Crocker retired after working for 25 years as Vice-President of Carter and Holmes Orchids in Newberry, S.C. He has carried on the breeding program started in the 1950's by Bill Carter. Many of his hybrids have been awarded by the AOS, including two that received FCC's and one AQ.

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July

Cattleya warchewiczii
Cattleya gaskelliana



AUGUST

CATTELYA TENEBROSA
CATTELYA DOWIANA AUREA

Cattleya (formerly *Laelia*) *tenebrosa* is also from Brazil. It has large flowers that are typically bronze colored with a purple lip. There are other color forms, including the yellow 'Walton Grange' with a purple lip and the greenish yellow 'Thanhouser's Treasure' which has a white lip. The bronze form is used to give vigor and to intensify the color in yellow and red cattleya hybrids.

Cattleya dowiana aurea is from Colombia, and is the most famous yellow cattleya species. The flowers have poor substance and only last a week to 10 days in the summer heat. The large lips are dark reddish purple with bright yellow eyes and god veining. It is a beautiful flower, but the plants are difficult for most people to grow. It has been used a lot in hybridizing. The yellow color is recessive, but the beautiful lip is dominant. It is in the background of most of the summer blooming yellow hybrids (the yellow color coming mainly from the Brazilian rupicolous cattleyas – formerly laelias – such as *C. cinnabarina*).

Cattleya dowiana is a similar species from Costa Rica and Panama. It is easier to grow and has very different breeding characteristics. It is a color intensifier, and when crossed with lavender cattleyas will give very dark purple colors. If some *C. tenebrosa* is also present in the hybrid, the result can be large, clear red cattleya hybrids.

September

Cattleya labiata
Guarianthe bowringiana



Grammatophyllum speciosum

Orchid of the Month



by Kathi McKenzie



Grammatophyllum, is a genus of 13 known orchid species. The name refers to the markings on the bloom ('gramma,' meaning letter, and 'phyllon,' meaning leaf. The largest of the grams is speciosum, found in dense rain forest area in New Guinea, Indonesia, Malaysia and Philippines.

Gram. speciosum can grow into gigantic plants, weighing thousands of pounds, with long narrow pseudobulbs of up 8' in length. Inflorescences of up to 10' can bear up to eighty large, long-lasting flowers. The flowers are yellow colored with maroon spots. The flower structures are unusual, as the lower flowers have no lip, and serve to emit chemical scent to attract pollinators as the other flowers bloom. It generally blooms only once every two to four years.

Gram. speciosum is commonly believed to be the world's largest orchid. London's Crystal Palace Exhibition in 1851 featured one that had attained a size of 2 tons. More recently, one at the Brooklyn Botanical gardens, weighing a mere 300 pounds, was featured in the news a few years ago when it was reported—an endeavor requiring cables, pulleys, and several strong men.

If you like the look of this gram, check out its much smaller cousin, gram. Scriptum, var. kiilani. This compact orchid can bloom several time a year, and is generally considered easy to grow.



Gram. speciosum



Gram. scriptum var. kiilani



Focus on Photography

Written and Photographed by
M. Forest Shipps

This month is going to be a really neat trick on how to get awesome reflections for your flower photography. I'm sure you have all seen those poster frames that are sold at craft stores like Michaels, JoAnn's, etc. They have a cardboard back, clear plastic front and black channeling around all the edges to hold your picture in place. When you buy one make sure you get the largest one available and make sure it has a black frame. I purchased a 27" x 40" frame from Michaels for \$18.00 using a 40% off coupon. (Always use a coupon there and never pay full price.)



Next, you will need a can of black spray paint. Whatever type you want, gloss, flat or satin, it doesn't matter as long as it is compatible with plastic because some paints won't stick to plastic, so be sure to read the instructions. I used a can of Krylon Indoor/Outdoor flat black paint, even though the instructions said nothing about using it



on plastic it seemed to work just fine. It costs about four dollars at any hardware store.

Now that you have your materials ready let's get started. In a WELL VENTILATED area spread out some newspaper/cardboard so the overspray will not get on

anything. Take your poster frame apart and notice that the plexiglass has a plastic film on both sides. Take the film off one side and place it on your newspaper facing up. This is the side you will paint. Follow the instructions on the paint can and apply thin even coats over the plexiglass until you have it completely covered and allow it to thoroughly dry.

Once the plexiglass is dry flip it over and



remove the film coating on the other side. Then reassemble the poster frame with the painted side facing the cardboard backing and reinstall the black channels on the frame. When the frame is finished you should have the non-painted side facing outwards. That's it, you're done! You have a black mirror like surface to photograph on.

Find your favorite flower, place it on the poster frame and take a photograph. (I also hung a black cloth behind the flower to hide any distractions.) Bonus tip: You can make a second poster frame, but this time paint it white including the frame channeling for a completely different look.



Orchid Conservation Update

Charles Hess



Ex Situ Conservation

In a recent conversation about conservation a club member mentioned the importance of

taking good care of our collections to preserve valuable species. I agreed, but deep down I realized that I know very little about the impact of Ex Situ conservation. One method called seed banks I had heard about but knew nothing about their success. Another method, “private collections”, is one that we practice in our club. Our auctions are an excellent way for each of us to farm pieces of our collections to other members. By having a clone of a specimen in more than one location, that plant’s odds of surviving are increased. A power outage during a winter freeze, or during an especially brutal summer, can damage or even destroy an entire collection. By distributing our plants among each other we increase the odds of survival.

But just how important is this concept when carried out long term or on a larger scale? I decided to research this topic, and I turned to my reliable source “*Orchids and their Conservation*” by Harold Koopowitz (2001).

To begin with, preserving orchids in their

natural habitat (In Situ conservation) can work only if that habitat still exists. For most of our important species, these habitats are gone, and many species remain only in collections. So, for many species, Ex Situ conservation is all we have. So, yes, these species of ours are important.

At the genetic level, however, preserving a few species in a collection misses the ideal goal of preserving the original gene pool, although it is still better than nothing. Koopowitz says that a rule of thumb is that “50 randomly selected individuals contain 95% of the genetic variations of the population”. It would take at least 500 to a thousand plants to really preserve the species going forward. Obviously at our individual level of growing, we have to forget that goal. Not even



Sarah Gattiker stores the 24,200th species of seed in the vault at Kew’s Millennium Seed Bank

to achieve that. And often, too, only a few of the rarer species even exist.

Some large collections in the past have been set up for conservation but all too often lack of funding, changes in ownership, and loss of key personnel have spelled doom for the collection’s continued success. Kew, which I have always thought of as the gold standard for gardens, has only 5,000 species of orchids and their long term survival rate is less than 10%. Perhaps this low survival rate can be explained by the fact that Kew’s purpose has tended more heavily toward research rather than conservation. And, consider that even with adequate funding and good care, orchids just don’t tend to survive well past 30 to 50 years even in the best of hands (although there are cases of orchids who have made it to the century mark).

Several alternatives that get past the above issues consist of preserving species in seed, gene and tissue culture banks. This has been done for our important agricultural crops, such as rice and corn, with good success. Every few years the seeds are planted out and the seed stock is refreshed. Orchids are less fortunate, in that their seeds remain viable for many only a few weeks or months. (Terrestrials are reported longer.) Temperature and the amount of moisture in the seeds are prime factors to the seeds’ viability. The cooler and dryer they are, the longer they will last. Research experiments with freezing seeds has produced mixed results unfortu-



Micro-propagated seedlings of *Angraecum* in Madagascar in an attempt to bank seeds of this species.

nately. In the 70's and 80's, when seed banks for wild flowers were getting started, a project was launched for orchids when some studies showed 3 year viability with -10° C. But then the 8 year data came in, and all seeds were dead. This was a crushing blow to a program that had even been advertised in the AOS bulletin as ready for prime time.

Koopowitz conducted work in the 1990's on plotting longevity at different tempera-

tures with some good outcomes, but recognizes that more work needs to be done. He recommends that "setting up carefully controlled, long-term sub-freezing experiments should be the top priority of the orchid conservation community." Further stressing the importance of Ex Situ conservation, he goes on to say that we would be lucky to preserve 50% of the species with In Situ preservation and even a lesser percentage of the biodiver-

sity to keep it going.

A brief search through the internet shows a number of seed bank programs that focus on the collection and redistribution of seeds to growers or repopulating the natural habitat. These look like a good method to capture the maximum amount of diversity while the long term storage awaits a solution. Like so many of the problems we face with all aspects of our future existence, it may take multiple solutions to keep orchids available for future generations.

What can we do? We can pass divisions of our special orchids to friends and follow the success of the orchids in their new home. On several occasions, I have received plants from friends who felt my greenhouse would be a better environment. And conversely, I have friends who have done better with my divisions. Whenever we bring divisions to our club auctions we should remember to identify the source so that new owners will know where the cultivar came from. Also, it's a good idea to keep a record of who ends up with your contribution. Finally, we need to make plans for the disposition of our collections, should we be unable to care for them at some point. This way our plants will continue to receive the loving care and attention they need in order to thrive and bring joy to future generations of orchid lovers.

Orchid Growing Tips

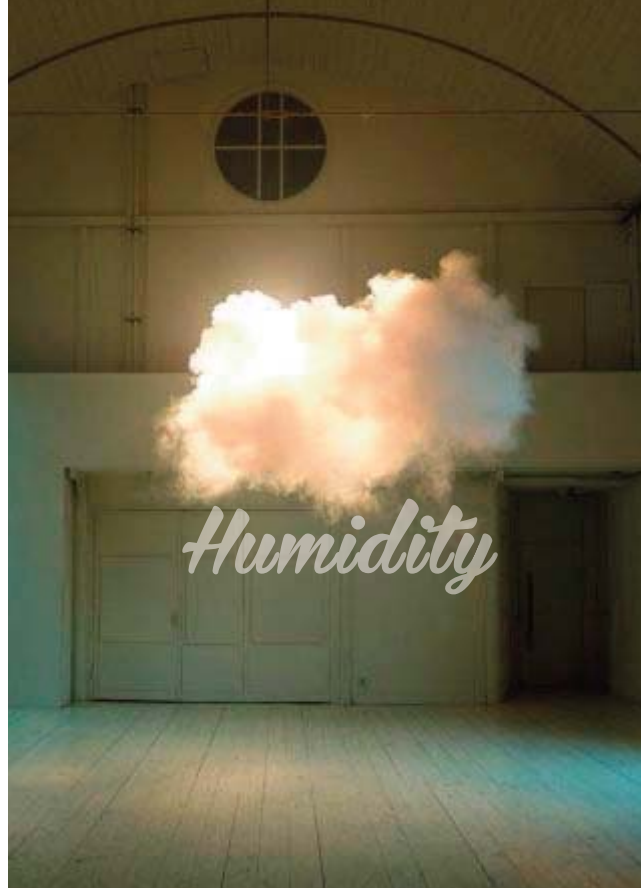
by Courtney Hackney

A monthly growers advice column by Courtney Hackney. Hackneau@comcast.net

This column is written in humid coastal North Carolina and Florida, and the advice given should be adjusted to the readers climate.

For the first time in my orchid growing career, I understand why so many books on orchid culture discuss the difficulty of growing orchids under low humidity and how to counter the effects of low humidity. Typically, the only time humidity is lower than the ideal for orchids in most of the Southeastern U.S. is in winter, when days are short and the sun is low on the horizon. Raising humidity in winter-spring in a closed greenhouse is relatively easy with a humidifier or various types of misters. Keeping humidity up in late spring and summer has proven to be far more difficult.

Most orchid growers know that orchids prefer good humidity, but what is “good humidity”. The books say that the perfect humidity for most orchids is around 60%. Leaves open their stomata to let in carbon dioxide and evaporate water to cool themselves during the heat of the day. The ideal humidity is when the amount of water in the air is such that orchids undergoing photosynthesis are able to move enough water from the medium into their roots and to the leaves to compensate for the water lost to the atmosphere. The warmer the air, the faster the plant can photosynthesize, but the more water the orchid will need to evaporate to keep from overheating. When the need for water exceeds the supply, most plant leaves wilt, but the rigid leaves of most orchids simply overheat.



Thus, the same relative humidity levels in winter (cool) will not have the same effect as in the summer when it is warm or hot because orchids are not growing as fast when light levels are lower and so do not need the same degree of cooling. This past spring, relative humidity levels in the Southeast have been at a record low, not for just a day or two, but for months. Hobbyists with small greenhouses or windowsills have had to water with great frequency and still watch their orchids

show signs of water stress.

Most of us in the South that have been hoping for an increase in humidity should remember the old expression; “Be careful what you wish for” because high humidity is a normal part of the Southern climate and will be here soon. It is much harder to manage high humidity than low humidity. The primary difficulty with hot humid summers results from the low evaporation rate as humidity approaches 100%. The closer the relative humidity is to 100%, the lower the rate of evaporative cooling both in the leaves (via the stomata) and from the leaf surface. Not only does water stand in the crowns or on leaves until nightfall, but the evaporative cooling used by plants to cool leaves is also very ineffective.

As the temperature and humidity rise, orchids can be shaded more and air flow increased to limit

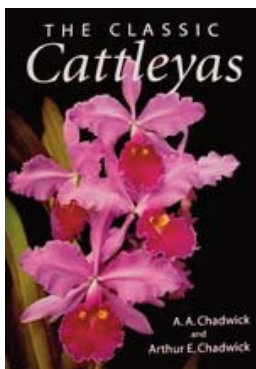
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over heating and increase cooling. If not, orchids will become stressed, even if excess water on plants at night is avoided. Stressed orchids are always more susceptible to attack by disease and pests. Fungal and bacterial problems will develop quickly in the heat, especially on thin leafed orchids or on orchids that prefer cooler conditions. My attempts to grow cool-loving masdevalias and other aliens to high heat always fail this time of year, with few exceptions.

Orchids in baskets, especially vandaceous types thrive

in the high heat and humidity as long as there is enough air movement. This time of year, the few orchids in my collection that are reputed to be intermediate types are placed in lots of shade and misted on the hottest days every morning. A fan aimed right at them insures not just the maximum cooling, but that they will be dry by the evening. If you use distilled or RO water in your misting, there will also be few rots that accompany the extra misting. Bacteria and fungi do not grow well in water with absolutely nothing in it.



Classic Cattleyas by A.A. Chadwick and Arthur E. Chadwick's is everything I hoped it would be by one of the world's foremost cattleya experts, Arthur Chadwick, and his son, who is one of an emerging cadre of

new orchid entrepreneurs. For many years, members of the American Orchid Society have enjoyed the senior authors many articles on Cattleya species in their monthly magazine "Orchids". At the end of each article, readers were always left wanting more.

The junior author of the book is well known to many throughout the mid-Atlantic as a willing speaker and columnist on orchids and greenhouses. This father and son team combined their perspectives and experience, old and new, into a book that is useful to both expert and novice orchid growers. In fact,

there are two books; one for the beginner anxious to grow and flower this amazing group of orchids and another for the advanced hobbyist who wants to understand the complexities of orchid taxonomy and relationships between species.

Those readers that are botanically oriented will appreciate the historical twists and turns that resulted in the current botanical name assigned to each species. More important to some, is the description of each species and its unique characteristics. For those species easily confused with other species, William Rogerson's approach to separating confusing species using growing characteristics along with flower color and size is advanced. Cultural tips on growing some of the more temperamental cattleya species makes this a reference book that I keep close at hand.

There is an excellent introduction to some of the major lines of cattleya hybridizing as well as an excellent chapter on culture

including repotting and diseases. Photos of most of the common diseases and pest-induced problems are included and will be very useful to hobbyists growing cattleyas for the first time.

There is a chapter on cattleyas in art, which may seem out-of-place in a horticulturally-oriented book, but is not. Much of what we know about many early species and forms of these species comes from paintings and illustrations. Earlier chapters place great emphasis on the difficulty botanists had because of inadequate specimens and illustrations. This chapter makes it clear that an artist's eye can capture far more than any lens, digital or optical.

While *Classic Cattleyas* may seem like this book is only for Cattleya growers, it really tells the story of the discovery of tropical orchids by western civilization. Every orchid hobbyist should have a copy even if they do not grow cattleyas.

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.

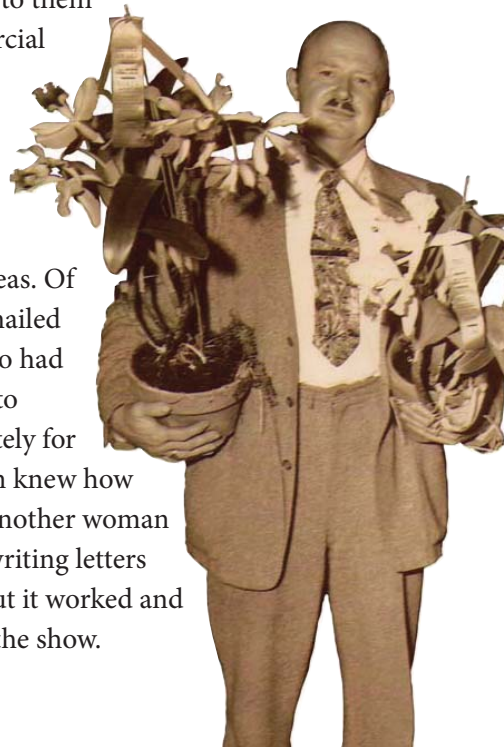
There was an incident over a plant raffle that year that upset several members of the North Texas Orchid Society, so several members chose to leave and form another society calling themselves the

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.



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

- \$20.00 – New or Renewing Member (individual)
- \$10.00 – Additional Member (each additional person in same household)

Membership Dues

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): _____