The Arizona Orchidist

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NEXT OSA MEETING

The next regular society meeting will be **Monday, April 6th** at **7:00 P.M**.
Meetings are held at the
Training Center
at the
Arizona State Veteran Home
4141 S. Herrera Way, Phoenix.
(Formerly North 3rd Street)
OSA meetings are open to all plant enthusiasts

Refreshments will be provided
Beverage- Gary Law
Snacks - Bob MacLeod and Wilella Stimmell
Refreshment Coordinators:
Barbara Parnell (602) 451-5952
Lou Ann Remeikis (602) 803-6889
Jo Anne Waddoups 480-654-9883

Grower on Call
Lou Ann Remeikis
(602) 803-6889
Lou.remeikis@gmail.com

Board Meeting
April 19th at 1 P.M.
at the home of Barbara Parnell

APRIL PROGRAM

Gustavo Romero, Keeper of the Orchid Herbarium at Harvard University Herbaria, and Editor of Harvard Papers in Botany, will present a PowerPoint presentation: "**New Highlights of My Venezuelan Expeditions and an Introduction to my Work in Mexico**".

For new members who might not know, Gustavo is originally from Venezuela where he worked for the Council of Agricultural Research. In 1986, he received his PhD in Ecology and Evolutionary Biology from Indiana University.

In 1988, he was appointed Keeper of the Orchid Herbarium and Editor of Harvard Papers in Botany. Both are positions which he still holds.

Gustavo has published a multitude of scientific papers on Orchidaceae, and since 2001, he has dedicated much of his research time to the orchid flora of the Yavita-Maroa road, an incredibly diverse area in southern Venezuela.

Since 2001, OSA has annually donated funds to help defray the costs of Gustavo's annual expeditions. He is always grateful for our assistance and acknowledges our support in the articles which he submits for publication in The Arizona Orchidist. Even with our contributions for his field work, Gustavo endures hardships in the jungle that most of us would never volunteer to experience! (We are accustomed to indoor plumbing, food purchased from supermarkets, comfortable transportation in our cars (not paddling in dug-out canoes), and bug free homes with beds, not hammocks.)

This will be Gustavo's fourth presentation for OSA. He last spoke at our June, 2012 meeting. Welcome back, Gustavo!

Wilella Stimmell

Raffle Donors

Bob MacLeod, Keith Mead, Julie Rathbun, Wilella Stimmell,
and non-member – Mark Obermayer
Thanks to all for your support of this important fundraiser.

IN THIS ISSUE

Julie Rathbun

Before I mention our March 2 meeting, I want to thank the workers who were a tremendous help in our booth at the Home and Garden Show on March 6-8. The names of the workers are included in alphabetical order.

Joe Bacik
John and Karen Barber
Brad Dana
Carol Erwin
Dana and Dolly Floyd
Gary Law
Bob MacLeod
Barbara Parnell
Wilella Stimmell
Dean Toms

Bob M, Dean, Wilella and I worked all 3 days of the show.

If I forgot to mention a worker, please know that it was unintentional.

We had another financially successful show – almost double the plant sales at last year's Home/Garden Show at the University of Phoenix Stadium. We sold at least 90% of the plants that we had purchased from Gubler Orchids! (Barbara Parnell and I went over to Landers and hand selected the plants. I drove my horse trailer that has sleeping quarters, and we spent the night in the sleeping quarters. We drove home the following morning.) Thanks to everyone for their teamwork!

At our March 2 book auction meeting, we had excellent attendance which included several visitors.

For our April 6th meeting program, Gustavo Romero will be our speaker. And on our silent auction, we will place some of the plants that were unsold at the Garden Show.

The **Fred Rathbun Memorial Horse Show** which had been scheduled for March 14, was cancelled and **rescheduled for November 7th**. I tried to phone the OSA members who usually help with the show, but if I missed notifying someone who planned to help on the 14th, I apologize.

Important notice regarding raffle plants: We are in **need** of **donated plants** for our raffle table. If you have extra plants, we would greatly appreciate it if you would donate them for future raffle tables. Phone or email me if you have plants, and I will be glad to care for them. What happens if we don't have donated plants on the raffle table? We have to take plants from inventory and "sell" them to the raffle table. The cost of each of those plants must be deducted from raffle ticket sales.

See you on April 6!

Julie

COMMUNITY SERVICE PROGRAM SCHEDULE

Wilella Stimmell

On Wednesday **April 8, at 2 P.M**., our volunteer team will present a hands-on repotting program at the **Northwest Regional Library**, 16089 N. Bullard Ave., Surprise, AZ.

On Saturday, **April 11**, at **11 A.M.** we will present a hands-on repotting program at the **Queen Creek Branch Library**, 21802 S. Ellsworth Rd., Queen Creek, AZ.

Collector's Item: *Coelogyne mooreana* Sander

Coelogyne mooreana, a native of Vietnam, grows best under 1,500 to 2,500 footcandles or the low end of the light level for cattleyas or oncidiums. Strong air movement at all times is critically important. In their native habitat, the summers are characterized by heavy cloud cover indicating that shading is beneficial from spring to fall, but light should be as high as the plant can tolerate, short of burning the leaves. In this species' native habitat, winter is the brightest season.

Summer days should average in the upper 70's to the low 80'sF and nights in the low 60's are ideal. A temperature differential of 10-15F between day and night temperatures is essential for good growth and flower production. During the winter rest period, nights may drop routinely into the low 50's with an increase in the day/night differential up to 25F.

Coelogyne mooreana is a moderately sized sympodial epiphyte that grows 12-18 inches tall with two glossy green, heavily textured leaves per growth. The erect inflorescence is 15-20 inches tall and emerges from between the leaves of new growths before the pseudobulbs have formed. Three to eight large, fragrant flowers up to 3-4 inches (7-10cm) are produced per inflorescence. They open simultaneously and are well-spaced along the inflorescence. The floral segments are snow white except for a golden yellow blotch on the midlobe of the lip. The flowers last in excellent condition for four to six weeks if the plants are kept cool, somewhat on the dry side and in relatively low light *Ron McHatton AOS*

The Arizona Orchidist is published monthly by the Orchid Society of Arizona, Inc.
Direct Inquiries to our website at:
www.orchidsocietyaz.org
Or to any of the Board Officers or Trustees:

Board of Directors for 2015

The Orchid Society of Arizona, Inc. is a non-profit 501 (C) (3) organization dedicated to community service and the study of orchids. It is affiliated with the American Orchid Society, the Arizona Federation of Garden Clubs, Inc. , and The Nature Conservancy.

LIGHT LEVELS

In our December, 2007 newsletter, a portion of the information on **light levels** was included - provided to me by the late Charles Baker. We have new members, and almost all of them grow their orchids in their homes.

Orchids grown in the home normally require supplemental lighting. Fluorescent lights are most frequently used in a one-to-one ratio of cool-white and Gro-Lux bulbs which provide nearly full-spectrum light. Growers also successfully use the newer "full-spectrum" fluorescent and high-intensity lights. Halide lights should be combined with sodium bulbs since alone they are deficient in red portions of the light spectrum, which prevents flowering in some species. Artificial lights are easily controlled by timers to provide seasonal fluctuation, increasing and decreasing light levels each month. Most species do well with 11-14 hours of light, which the following schedule provides:

JAN. (JUL.) 6:30 a.m.-6:00 p.m.	JUL. (JAN.) 5:00 a.m.-7:00 p.m.
FEB. (AUG.) 6:00 a.m.-6:00 p.m.	AUG. (FEB.) 5:30 a.m.-6:30 p.m.
MAR. (SEP.) 5:30 a.m.-6:00 p.m.	SEP. (MAR.) 5:30 a.m.-6:00 p.m.
APR. (OCT.) 5:30 a.m.-6:30 p.m.	OCT. (APR.) 6:00 a.m.-6:00 p.m.
MAY. (NOV.) 5:00 a.m.-7:00 p.m.	NOV. (MAY.) 6:30 a.m.-6:00 p.m.
JUN. (DEC.) 5:00 a.m.-7:00 p.m.	DEC. (JUN.) 6:30 a.m.-5:30 p.m.

Seedlings need very low light, starting at 200 fc when they are just out of the flask. During the following years, light should gradually be increased to mature-plant levels as the plants reach blooming size.

Studies indicate that seedlings grow more rapidly if given 14-16 hours of light year-round. However, extending light in the general growing area may adversely affect blooming in mature plants. Consequently, either seedlings should be grown in a separate area, or the light should be blocked from other plants in the same area.

***The above article is enclosed with the 2007 verbal consent of the late Charles Baker

What does 4N Mean?

4n indicates that the orchid has 4 sets of chromosomes, or that it is a tetraploid. Humans have two sets of chromosomes, one from your mother and one from your father. So humans are diploids.

Polyploidy (an extra set of chromosomes) most often happens in the plant kingdom. Lilies, like the big Casablanca's from Oregon, even go up to eight sets of chromosomes (octoploids). It is accomplished by breeding tetraploids or by treating the seeds with colchicine.

Polyploidy in an orchid is usually very desirable, because polyploidy offspring have bigger flowers than their parents. 4n plants are also vigorous growers.

Future US megadroughts set to be the worst in 1,000 years

Southwest and Great Plains expected to see to significantly drier conditions by end of century.

Climate models suggest that large swathes of the United States will shift to a much drier climate in coming decades. Decades-long droughts are likely to ravage the US Southwest and Great Plains within the next century, a study suggests. This drying could be worse than any other in the past 1,000 years, including a 'megadrought' seven centuries ago that helped drive an ancient civilization to collapse.

The work, published on 12 February in *Science Advances*, is among the first to rigorously compare the climate record of the deep past with long-term projections of today's warming climate. "These future droughts are not only going to be bad compared to what we've experienced over the historical period, but also really bad compared to the past millennium," says Benjamin Cook, a drought researcher at NASA's Goddard Institute for Space Studies in New York City, who led the work. "It's going to be a pretty much fundamental shift. "Much of North America has a long and detailed climate history, thanks to tree rings that preserve records of temperature and rainfall. Many scientists have used these to piece together the story of decades-long droughts, like one that gripped the US Southwest in the thirteenth century and probably contributed to the disappearance of ancient Pueblo peoples. Others have used global climate models to study the region's future, and found that it may already be transitioning to a fundamentally drier state. Cook's team aimed to bridge past and present. The scientists compared 1,000 years of North American climate history with future projections from 17 different climate models — "as many as we could get our hands on that gave us the data we needed", Cook says.

Drying out

Among other metrics, the researchers looked at a measure known as the Palmer Drought Severity Index, which is an indicator of soil moisture. Some scientists criticize the Palmer index because it can overestimate future drying if it is calculated on the basis of temperature projections alone. To get around this problem, Cook's team used a different method of calculating the index, one that incorporates humidity and energy from sunlight. Kevin Anchukaitis, a palaeoclimatologist at the Woods Hole Oceanographic Institution in Massachusetts, says that the revised method gives a much more accurate projection of how dry things will really get. "This is the first convincing demonstration I've seen that it is both possible to seamlessly connect past, present and future, and to then be confident that they are on comparable scales," he says. Cook's team modeled conditions through to the end of the twenty-first century, using both a scenario that assumes that greenhouse-gas emissions will continue on current trends — staying relatively high — and a more moderate scenario that would require major emissions cuts. Models run using both scenarios projected significant dryness between the years 2050 and 2099. These droughts would persist for many years and be even worse than the medieval megadroughts, says Cook. California is currently in the grip of a drought that has lasted for several years, and the Southwest has been in another for more than a decade. "Imagine those droughts lasting 20, 30, maybe even 50 years — that gives you a sense for what the future droughts will look like," says Cook. "They will be very strongly amplified by anthropogenic warming." Tens of millions of people live in the regions at risk. The next step is to work out exactly when this shift to a drier baseline climate might come. Cook and his team want to use models to tease out when the effects of human-driven warming might start to exceed natural climate variability.

OSA April 2015 Calendar

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 Philip Liu Bob MacLeod	2	3 Richard Holle	4
5 Happy Easter 	6 **OSA Meeting 7 PM**	7	8	9	10	11
12 Sally Griffith	13	14	15	16	17	18 Wes Ringering
19 **Board Meeting 1 PM at Barbara's**	20	21	22	23	24	25
26 Mary Gannon Jan McVey	27	28	29 Corlaine Mortenson	30 Susan Nahmias		

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