



The Arizona Orchidist

Published monthly by
The Orchid Society of Arizona, Inc.
Founding Editor- Clarence S. Lindsten
1966

Volume 43

April 2007 Number 4

NEXT OSA MEETING

Meetings are held at the
Encanto Park Clubhouse
2605 N. 15th Ave., Phoenix, Arizona
North of Encanto Blvd. on 15th Ave.
Phone (602) 261-8993

The next regular society meeting will
be Monday, **April 2nd**, 2007
at 7:00 P.M.

OSA meetings are open to all
plant enthusiasts

Refreshments will be provided.

This month Lou Ann Remeikis will
provide liquid refreshment

Snacks by

Mary Gannon, Sara Heberling and

Lou Ann Remeikis

Refreshment Coordinators:

Barbara Parnell (480) 948-0714

Mary Gannon (623) 878-4173

OSABOARD MEETING

Board Meetings

are open to all members

The next Board meeting will be

April 29th at 1:00 PM at the

home of Julie Rathbun

Please contact her for directions

GROWER ON CALL

Keith Mead

kjkm@comcast.net

April Program

The Orchids of Puerto Rico and Belize a PowerPoint Presentation

"David Johnston of Jewell Orchids, Colbert, GA, has been growing orchids for over 35 years and has been hybridizing orchids for more than 20 years. Dave graduated in Botany and Horticulture from Iowa State University. Before he decided to establish Jewell Orchids, he served as Director of the ISU Botany and Plant Pathology Research and Teaching Greenhouses.

Dave was a member of the Central Iowa Orchid Society for almost 30 years and spent a number of years as President of the CIOS and serving in other elected offices. When Dave lived in Iowa he housed all of Carson Whitlow's blue *Cattleya* collection and has carried on some of the blue breeding.

Recently Dave spent time in Puerto Rico and Belize and explored orchids in their natural habitats. Previously he explored many natural orchid habitats in the U.S.

In 2003, Dave and his wife, Angel, moved their household and business from Iowa to Georgia so that they could enjoy a milder climate."

Angel Johnston

Editor's Note: Please extend our usual warm OSA welcome to Dave Johnston. This is his first presentation for us. Also, during our April meeting, there will be plants from Jewell Orchids on our silent auction.

IN THIS ISSUE

FROM THE PRESIDENT'S DESK	Julie Rathbun	Page 2
RESEARCHERS LEARN WHAT SPARKS PLANT GROWTH	Science Daily	Page 4



From the President's Desk

Julie Rathbun

For those of you who missed our March meeting, you missed one of THE best programs that we've had in years! Gustavo Romero's PowerPoint presentation included photos of such high resolution that members of the audience felt that they could reach out and touch the flowers. We now have mental pictures of Gustavo's expeditions to the Yavita-Maroa area in Venezuela that match the articles that Gustavo has written for our newsletters. For newer members who haven't read Gustavo's articles in The Arizona Orchidist, if you're interested in reading past articles and have internet access, you can read his articles in our newsletters that are uploaded onto our website. For those of you who are internet-challenged, an OSA board member is willing to locate an article and copy it for you. Just let one of us know of your "desiderata" (Gustavo's word for a wish list).

Gustavo was an ideal house guest, and my Yorkies adored him. Perhaps his well-groomed mustache appealed to my Yorkies? Thanks to Aaron Hicks and Wilella Stimmell for helping to entertain Gustavo during his visit to Phoenix.

It was a welcome sight to see Pamela Albright, Shirley Engberg, and Diana Sibley at our March meeting. We hadn't seen them for several months, and we're glad they were able to attend our meeting. The "award" for the member who drove the farthest distance to get to our March meeting goes to our Editor, Keith Mead! Sorry, Keith, but although we enjoyed your presence and appreciate the effort that you made to get to our meeting, no cash prize goes with your award. Consider it a "virtual" prize!

Several guests attended our meeting, and we have one new member who joined OSA at the meeting.

Thanks to those who pitched in and helped take down the tables and chairs after the conclusion of our meeting. A guest assisted with the chore! With several people helping, we completed the task in record time.

A reminder about misusing OSA's membership list: OSA's membership list contains information that is intended STRICTLY for OUR members. OSA's Board of Directors has declined to share our membership list with other orchid societies and non-orchid groups that have requested our membership list because we consider sharing mailing addresses to be an **invasion of privacy**. Some of our members have strongly objected to OSA's Board of Directors about receiving unsolicited mailings. We assured them that NO OSA Board Member shared their mailing address. By process of elimination, we think we know who distributed OUR membership list. OSA does NOT send flyers to members of other Arizona orchid societies, and we hope that in future, the practice of selecting names and addresses from OUR membership list will cease.

See you at our April 2nd meeting!

Julie

Welcome New Member

Please extend a warm OSA welcome to new member **Trevor Bui**.

Member News

Doug Baldwin, Professional Photographer, is alive and well! The reason that we haven't seen him lately is that he's been involved with a photo assignment which has taken him from the east coast to the west coast. Doug was hired by a Fortune 500 corporation to shoot photos at the Orange County Choppers shop, photos of a partially built chopper that OCC is building for the corporation, and portraits of the "stars" of the American Chopper TV show. Doug's photos will be used for the corporation's marketing programs. (American Choppers is shown on The Learning Channel. The show airs on Thursday evenings at 10 PM. Each week the episode chronicles the building of a custom chopper from "scratch" for a client.)

STAFF CHANGE AT THE ARIZONA STATE VET-

ERAN HOME: Mindy Morales is the new Recreation Therapy Department Manager. If the residents request something new that they would like to have (for example: a soda pop flavor or snack that OSA has not brought for them), Mindy will notify us.

In the meantime, THANK YOU to those OSA members who have placed money in our "veteran jar" at our meetings and to those who have brought 12-packs of soda pop to our monthly meetings! Donations in the "jar" are used to purchase soda pop and snacks. (I always hunt for bargain prices on the items!) The residents truly appreciate our generosity. I only wish that when I make the monthly deliveries, the cart on which I place the soda pop and snacks didn't make so much noise when it rolls over the outside pavement and on the inside tile floors! Any suggestions about how to pad the wheels are welcome! When I arrive, any residents who WERE napping in their wheelchairs are awakened by the noise made by the cart.

Wilella Stimmell

2007 Membership Rosters: Due to time constraints (too much to do and too little time), our new rosters will not be available until our May meeting. For those of who did NOT fill out renewal forms to accompany payment of dues, if you have changed your growing environment, or any other information contained in the 2006 roster has changed for you, those changes will NOT be included in the new roster. In the interest of conservation of time and the expense of paper and ink, there will be no roster updates after our 2007 membership roster is completed.

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 2007

President	(602) 843-0223
Julie Rathbun	jandfent@aol.com
First Vice President	(480) 722-9328
Aaron Hicks	ahicks51@cox.net
In House Program Chairman	
Second Vice President	(480) 785-2251
Joe Bacik	bacikj@cox.net
Outside Speaker Program Chairman	
Secretary	(480) 948-0714
Barbara Parnell	birdie55202@yahoo.com
Treasurer	(480) 947-8479
Wilella Stimmell	wilellas@worldnet.att.net
Librarian	(602) 803-6889
Lou Ann Remeikis	remeikis@andiamo-tel.com
Editor	(505) 898-0975
Keith Mead	kjkm@comcast.net
Trustees	
Jim Lauck	(623) 742-6574
	jim_golf_phx@yahoo.com
Bob MacLeod	(623) 935-4059
Marleny Castillo	(602) 441-4050
	corinc@hotmail.com
Mary Gannon	(623) 878-4173
	mggaz@cox.net

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,

Researchers Learn What Sparks Plant Growth

[Science Daily](#) — A secret long held by plants has been revealed by Howard Hughes Medical Institute researchers. The new discovery, which builds on more than a decade of painstaking surveillance of cellular communication between different types of plant tissues, shows clearly for the first time how plants "decide" to grow.

The research, conducted by Sigal Savaldi-Goldstein and Howard Hughes Medical Institute investigator Joanne Chory at The Salk Institute for Biological Studies, puts to rest a century-old debate over which tissue system in plants drives and restricts cell growth.

"Our work exposes the presence of cell-cell communication during growth, from the epidermis to the inner layers. Such a mode of communication is important for plants to maintain a coherent and coordinated growth of the shoot," said Savaldi-Goldstein, a postdoctoral fellow in Chory's lab.

Chory's research group is interested in identifying the mechanisms by which plants alter their shape and size in response to changes in their environment. Chory studies *Arabidopsis*, a member of the mustard family that is to plant biologists what the mouse is to mammalian geneticists.

"How do organisms decide when to grow and when to stop growing? These questions are especially important in plants because they are rooted in the ground and must alter their shape and size in response to their local environment. Thus, it's a question of survival," added Chory. "It took us 10 years to develop the tools to ask the question. It is very satisfying for me to see the results."

Roots and shoots are a plant's two major organ systems. For this study, published in the March 8, 2007, issue of the journal *Nature*, the scientists examined shoots and the three layers of tissues that make up the shoot system: the epidermis, which is the waxy, protective skin; the mesophyll tissue, which contains the plant's chloroplasts--cells that conduct photosynthesis; and the vascular tissue through which water and nutrients are transported.

During the last decade, Chory has made a number of significant discoveries involving a key family of plant hormones called brassinosteroids, as well as the receptors for the hormones and the genetic factors that regulate production and uptake of the hormone in the different layers of plant tissues. According to Chory, brassinolide is a potent growth hormone involved in the plant's response to light. Such responses, which include adjusting plant growth to reach light or strengthening stems to support leaves, are central to plant survival. Brassinosteroid biosynthesis has become a critically important area of plant biology research with significant implications for commercial agriculture.

It's been a matter of some debate for a very long time if one of these tissue layers controls plant growth or if all three layers have to work together," Chory said. "Our paper shows very clearly that the epidermis is in control--in both driving and restricting growth. In addition, our studies show that the cells in the epidermis "talk" to the cells in the inner layers, communicating that they too should expand."

Savaldi-Goldstein made the discovery that the signal for growth originates in the epidermis by experimenting with dwarf *Arabidopsis* plants and the expression of brassinosteroids in the outer and inner layers of the shoot. When brassinosteroid hormone was expressed and taken up by receptors in the epidermis, dwarf plants grew to their full size. Savaldi-Goldstein and Chory also found that when a gene is expressed in the epidermis that inactivates brassinosteroid, the plant restricts growth. Thus, cell signaling began in the epidermis and followed into the inner layers of tissue, directing those cells to grow or to restrict growth.

Continued on page 5

Continued from page 4

The outer epidermis, which helps plants retain water and regulate the exchange of gases, clearly plays the role of environmental sentinel, communicating to plant tissues when conditions are right to seize the day for growth or hold back under less opportune conditions. More study is needed to determine all of the cues that spark the intimate dialogue between the cells of the epidermis and the inner cells of the shoot.

"Our study says that the major target tissue in the shoot for steroid hormones is the epidermis. Our results also show that these hormones act locally. As similar studies are done for other plant hormones and in other organs, such as the root, we will know the major sites of action of each plant hormone and will be able to make models to predict how they work together to give rise to the tremendous diversity of shape and form found in the flowering plants," said Chory.

For the moment, the research is an important addition to the fundamental knowledge of plant growth and survival. But the research and the work to follow have much broader implications.

"If we want to feed over nine billion people by the year 2050, then understanding the basic mechanics of plant growth is required," said Chory. "This knowledge will ultimately lead to our ability to increase yield, while decreasing the need for fertilizer and pesticides."

Note: This story has been adapted from a news release issued by Howard Hughes Medical Institute.

Editors Note: This article is reprinted with the kind permission of Dan Hogan, editor, Science Daily. Please visit Science Daily at www.sciencedaily.com

MARCH RAFFLE TABLE DONORS

The family of Ken Gettys, Bob MacLeod,
David Nunamacher, Diana Sibley and Wilella Stimmell

THANK YOU FOR YOUR SUPPORT

EDITOR'S BOX

It was wonderful to see all my orchid buddies at the March meeting. What a special treat to be able to meet Gustavo Romero and attend his presentation on the orchids of the Yavita-Maroa road. I always enjoy the articles he contributes to *The Arizona Orchidist*. I have often told Willie that they are an excellent mix of scientific information mixed with an Indiana Jones adventure. I look forward to hearing the results of his next expedition.

As this newsletter is being compiled our society President, Julie Rathbun, and Treasurer/Community Service Coordinator, Wilella Stimmell are attending the IOCC meetings in Costa Rica. I am sure they will return with some great memories and stories of their trip to share with all of us.

Many of you know that Willie is always finding new and exciting plant related websites for us to view (as the Science Daily site above). You might want to also visit www.herbs2000.com. They have a section on repotting orchids that is the most complete resource I have seen. The article includes an extensive list and description of potting media. Unfortunately this article is just too lengthy to reprint in our newsletter, but well worth a visit.

ed

OSA April 2007 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1  Bob MacLeod	2  August Lorenzini OSA MEETING	3	4	5	6	7
8	9	10	11	12  Sally Griffith	13	14
15  David Nunamacher	16	17	18	19	20  Lois Sauer	21
22	23	24	25	26  Mary Gannon Jan McVey	27	28
29 OSA Board Meeting 1 PM	30					



Orchid Society of Arizona
 c/o Keith Mead
 5425 Thomas Drive NE
 Albuquerque, NM 87111

April 2007 Newsletter