



The Arizona Orchidist

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NEXT OSA MEETING

The next regular society meeting will
be

Monday, April 3rd

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:

John and Karen Barber

Refreshment Coordinators:

**Lou Ann Remeikis (602) 803-6889
Barbara Parnell 602) 451-5952**

Board Meeting

**April 23 at 1 PM
at the home of
Bob and Cece Blue**

Grower on Call

**Dean Toms
(602)588-428
datoms@msn.com**

April

OKAY, LET'S TRY THIS AGAIN !

ORCHID PHOTOGRAPHY

This month's program topic will be a discussion and demonstration of methods and techniques for taking beautiful photographs of orchids. Professional photographer, Everardo Keeme, will be the guest speaker.

Everardo Keeme is a Spanish-American commercial photographer and co-owner of Photo Fusion Studio in Phoenix, AZ.

Since 2010, Everardo, has served as the Official Photographer for the Waste Management Phoenix Open.

Everardo is a Certified Professional Photographer and an active member of the Professional Photographers of America (PPA), Arizona Professional Photographers Association (AZPPA), American Society of Media Photographers (ASMP). Notable clients include; ExxonMobil, Nike Golf, Infusionsoft, Air Products & Chemicals, Pebbletec, Grabba Greens.

I hope you can join us and spread the word to all your friends to attend as well!

FEBRUARY RAFFLE DONORS

Brad Dana, Bob MacLeod, Julie Rathbun, and Wilella Stimmell

Thank You for your Support

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From the President's Desk

Julie Rathbun

It's important that I thank the workers who were a tremendous help in our booth at the Home and Garden Show on March 3-5. The names of the workers are included in alphabetical order.

Joe Bacik
John and Karen Barber
Bob and Cece Blue
Brad Dana
Dolly Floyd
Gary Law
Bob MacLeod
Barbara Parnell
Randy Ricardi
Dean Toms

and I think it's okay to mention myself.

Two members who had signed up to work, went to a lot of trouble to phone me and let me know why they couldn't help at our booth. I appreciated that they let me know why they couldn't follow through on their commitment.

A week before the show, Barbara Parnell and I went over to Landers and hand selected the plants at Gubler Orchids. I hauled my horse trailer, and after we finished selecting plants for sale and loaded them into the trailer, we drove back to Phoenix on the **same** day..It was a tiring but worthwhile journey.

At our March 6 meeting, we sold several of the plants remaining from the garden show, on our silent auction. We had planned to have a photographer speak at our meeting, but that didn't happen. At the last minute, **Joe Bacik** to the rescue! He downloaded 4 excellent videos onto his laptop, and we thoroughly enjoyed watching them at our meeting: Thanks, Joe!

Wild Orchids in Oaxaca, Mexico – a family expedition

Orchids of Borneo

Funny Rare Orchids – Nature's jokes

10 most expensive fruits in the world

FYI: For those of you who have spotted the "maintenance free" Psygmorchid *pusilla* sold on the internet, or seen my plant that I brought to a meeting, you might be interested to know that my plant developed rotten roots in record time. It died in one month. I followed the instructions that were included in the shipment, but the plant still died. Beware of gimmicks! Just because there's a new color orchid flower or new way to grow an orchid does not necessarily mean that it's worth spending your money on it.

See you on April 3!

Julie

CULTURAL NOTE Dealing with Aerial Roots

New orchid growers, especially those beginning with phalaenopsis, sometimes get concerned with the "silvery-gray, squiggly things" that overhang the sides of the flower pot. (I once ran into someone who thought they were flower spikes and had staked them vertically.) In fact, those are roots, specifically "aerial roots", so named because they tend to project into the air, rather than growing down into the medium.

Like any other roots, they function primarily to absorb water and nutrients. In many plants, they also contain chlorophyll, so can contribute to the photosynthesis processes of the plant. For that reason it is advisable not to remove them and to wet them thoroughly whenever you water the plant.

In the wild, the aerial roots may also serve as "guy wires", giving the plant mechanical stability against gravity and wind storms that may attempt to rip the plants out of their host trees, much as guy wires are used on antenna towers.. That may not be so important for home-grown plants, but they may still function that way to some extent. For example, a phalaenopsis grown in a small pot will often have an extensive array of aerial roots. Transplant it into a much larger pot, and those formerly-aerial roots will tend to sink themselves into the medium, and no additional aerial roots are grown.

One caveat to that: moving to a much larger pot is not advisable if you use traditional, organic potting media, as they tend not to wick the water around particularly well, so will develop a "soppy" pocket right in the middle of the root mass, potentially suffocating the roots. If you are growing your plants in semi-hydroponics, or use an inert medium, it likely wicks moisture uniformly, so that is not a concern.

Until next time... Good Growing!

*Courtesy of Ray Barkalow
First Ray's Orchids*

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Travel to Jahuactal Savanna, December 2016

This past December I returned to the Jaguactal¹ savanna, in the state of Quintana Roo, part of the Mexican portion of the Yucatán Peninsula, to continue a survey of the vegetation of this interesting site, a long-term project partially financed by the Arizona Orchid Society (see Romero 2016a,b) and also sponsored by the *Centro de Investigación Científica de Yucatán* (CICY) headquartered in Mérida, the capital of the state of Yucatán.

To travel to my destination, this time I flew on two different airlines, American from Boston to Mérida via Dallas (December 3rd) and United from Mérida to Boston via Houston (December 13th). On Tuesday, December 6th, we drove from Mérida in two "official" vehicles² directly to the town of Xpujil, in the state of Campeche. We again stayed at Hotel Calakmul.

The research team included Germán Carnevali Fernández-Concha (a senior professor at CICY), José Luis Tapia Muñoz (a senior technician), Katya Jeanneth Romero Soler (a graduate student, working on part of a genus of Bromeliaceae, *Tillandsia* L., under the tutelage of Professor Ivón Ramírez Morillo, wife of G. Carnevali), Iván Tamayo Cen, who works on the orchid genus *Clowesia* Lindl. (a graduate student under the tutelage of G. Carnevali and G. Romero-González), Anai Pereira Zaldivar (an undergraduate student working on epiphytes found in *tintales* under the tutelage of G.C.; more on the subject later in this essay), and Jesús Aviles Gómez, a graduate student working on natural, bioactive compounds found in the native flora of the Yucatán Peninsula, "... promoting their propagation, conservation, and sustainable use". This time we hired three local field assistants and guides, two of whom worked with us before, Juan Bautista Burgos y Cámara and Arsenio Martín y Castillo. New to the team was Rosario Hernández Cruz, who not only assisted us preparing meals and keeping our field camp in order but also accompanied and actively assisted us in the field.

After unloading the vehicles and settling at the hotel, Carnevali, Tapia Muñoz, and I drove to the town of Caobas to meet Mauro Cruz López, our contact in the *ejido*. The rest of the crew had the task of purchasing a few perishable food items we had not brought from Mérida.

We met Mauro and he suggested we contacted by phone the *Comisario* of the *Ejido*, Senén Carmona Santiago, with whom Carnevali also had exchanged phone messages, and who was at that moment out of town. After a brief phone conversation, it was clear that not all issues concerning our expedition were in order, as Carnevali had been informed; luckily, we had everything arranged before we drove back to Xpujil.³ We agreed to meet at Mauro's place early the next morning.

On Wednesday, all of us left the hotel in Xpujil by 6:00 AM (7:00 AM in Caobas!).⁴ All hotel rooms were vacated except for one where we all left equipment we could not use in the field (e.g., our laptops) and the clothes we would wear on our return to Mérida. We were at Mauro's place by ca. 8:00 AM (Caoba's time).

Waiting for the local team to assemble, in front of Mauro's home, we had the pleasure to observe multiple individuals of the beautiful collared aracari (*Pteroglossus torquatus*, Ramphastidae)⁵, feeding on the ample supply of fruits borne by a *Ficus* sp. tree (Moraceae).

We left Mauro's place and within 30 minutes were at the entrance of the timber road to the savanna. The road was dry and we did not find any major interruptions (e.g., no tree trunks laying across the road!). As our vehicles advanced we encountered, walking across the road, a small group of the Black-throated or Yucatan Bobwhites (*Colinus nigrogularis*, Odontophoridae), an endemic bird, and soon after 2 or 3 individuals of what appeared to be the Great Curassow (*Crax rubra*, Cracidae); the locals call the latter (and others of related species) "*faisanes*".⁶ We encountered few orchids, all without flowers, including *Cohniella ascenders* Lindl., *Trigonidium egertonianum* Bateman ex Lindl. and the ever-present terrestrial, *Oeceoclades maculata* (Lindl.) Lindl.

We drove for about twelve miles and reached a place suitable for a camp site.⁷ Our sleeping quarters were set up rapidly: some of us had hammocks, others tents. This time I deployed a tent, which turned out to be an excellent choice. It was a bit hot when I first went to bed, but it was perfectly comfortable in the early morning, when the thermometer dropped down to about 65 F.

At first we did not realize that our camp was right on the path of a column of army ants, the ones that practice cooperative hunting, which invaded some of the hammocks (via the hanging mosquito nets), but they were gone, without incident, by the time we had eaten lunch. Right next to our camp, we got to watch several unidentified species of "ant birds" (Thamnophilidae), the ones that follow columns of army ants: the birds feed on the insects that the ants flush, staying low, close to the ground, each making a particular short "beep". Throughout the time we stayed in our field camp, we also observed several solitary individuals of another ant bird, again unidentified, walking around our camp site, oblivious to our presence.

We were ready to explore the forest and the savanna by 1:30 PM. As we walked along a fairly wide, clean path towards the savanna, we encountered a rather large group of spider monkeys (*Ateles geoffroyi*, Atelidae), way up in the trees 20–30 meters high, of perhaps 6–8 individuals, including at least one female carrying a baby; they were as curious, watching us, as we were watching them. They did keep their distance, and we eventually left them behind. Also along the path, we encountered two rather large, magnificent trees of *Pimenta dioica* (L.) Merr. (Myrtaceae), with beautiful "naked" tree trunks.⁸

We soon left the tall forest, where we had camped and parked our vehicles, and entered a *tintal*, an altitudinally lower, much wetter transition zone, the interface between the tall forest and the savanna, again, as articulated in my previous essay (Romero 2016b), a "belt" of vegetation detectable all around the savanna in our satellite images and dominated by particular tree species.⁹ This belt is rich in epiphytes, including species in Araceae, Bromeliaceae, Orchidaceae, and Piperaceae, and is no doubt the most diverse plant community around. As mentioned before, Anai Pereira Zaldivar studies the epiphytes in *tintales*, here and elsewhere in the peninsula. She kept a checklist that which I used to compile, with Carnevali's help, the newly found orchids listed here in an appendix.

At this point we divided into three groups, each one accompanied by one of the local participants. I went to the savanna to see the "famous" pines. Growing on trees on the savanna, along the path, I found several plants of *Myrmecophyla christinae* Carnevali & Gómez-Juárez, and on the ground, I found a plant of *Encyclia guatemalensis* (Klotzsch) Dressler & G.E.Pollard (I swear it was the same plant I saw last February with lots of fruits). The pines were uneventful: a few trees, with twisted trunks, with no progeny on the ground.¹⁰

The group that also followed the path to the pine trees found one plant of *Liparis nervosa* (Thunb.) Lindl. in flower¹¹ and several plants of the terrestrial *Oncidium ensatum* Lindl. with old inflorescences.

I went back to the *tintal* and searched carefully for orchids. I found most of the species we had observed in this habitat in February and June 2016; most plants did not have flowers, and it was not clear whether they had flowered earlier the same year. I did find in flower one plant of *Epidendrum nocturnum* Jacq., one of *Polystachya caracasana* Rchb.f, and several of *Specklinia grobyi* (Bateman ex Lindl.) F.Barros. I was disappointed not to find *Oncidium sphacelatum* Lindl. in flower, although at this particular cite this species was not as frequent as we had encountered it elsewhere along the *tintal* in June 2016 (see Romero 2016b).

Eventually the entire group returned to the camp site. We had a light dinner and, tired, all went to bed.

We were all up early in the morning, had coffee and a light breakfast, courtesy of Rosario, and went back to the field. This time we divided into three groups: Jesús and Rosario worked on trees potentially bearing bioactive compounds,¹² Tapia Muñoz and Juan Bautista went to explore the savanna, and Carnevali and the rest of the group, including Arsenio, went along the "tintal", from east to west, recording all epiphytes. We were particularly interested in finding *Macradenia brassavolae* Rchb.f., found once in the Jaguactal savanna as a first report for the flora of Mexico. We did not find it. We did explore an *aguada*, a place where water accumulates that for some reason appeared round in our satellite images. It was clear that the local fauna visited it frequently: there were tracks of many mammals, approaching it from all sides, including those of local wild pigs.¹³

The big finding, orchid-wise, along our path, was an unidentified species of *Scaphyglottis* Poepp. & Endl. and a clump of *Epidendrum martinezii* L.Sánchez & Carnevali, both without flowers, but vegetatively unambiguous. We also found a small population of *Coryanthes picturata* Rchb.f., consisting of 4–5 plants, way up in high branches, but with no flowers, and a clump of *Prosthechea cochleata* (L.) W.E.Higgins, this time a variety with short sepals.¹⁴

We all returned to the camp site by early afternoon, had a light lunch and then decided to explore an area east of where we camped; it appeared, in our satellite image, to be a continuum with the area we had explored that morning. We all rode the Ford F-150 and traveled along a fairly clean path, what appeared to be another timber road. We had to cut a few small-diameter tree trunks found laying across our way. After 2–3 miles the road became narrow and intransitable. We decided to drive back a bit and then explore the forest along the road.

Most of the team went into the forest. It was indeed similar to what we had explored in the morning, but at a slightly higher altitude. We also encountered different orchid species. The vegetation was dense, much more so than what we had explored in the morning, and at times it was difficult to move around. We lost our bearings for a few minutes but soon found our way back to the truck. We found in flower *Epidendrum nocturnum*, *E. strobiliferum* Rchb.f., and *Rhetinantha friedrichsthalii* (Rchb. f.) M. A. Blanco.

Inside the forest, we found relatively fresh and easily identifiable droppings of the brocket deer (*Mazama pandora*, Cervidae) and of the ocelot (*Leopardus pardalis*, Felicidae).

It soon became dark, and we returned to our camp site. After a light dinner, we all, again tired, went to bed.

We were up early the next day. Carnevali processed, with all the students, the plants collected the day before. In the meantime, José Luis went out to collect soil samples in the different habitats we had explored and the rest of the team started to disassemble our sleeping quarters and to load the two vehicles. We left Jaguactal and, in quick succession, took our field help to Caobas and went to our hotel in Xpujil. We were back in Mérida the evening of Friday, December 9th. I flew back to Boston the 13th.

Overall, it was clear that, based on many years of climatic data, rain had not come to the savanna as predicted: the terrain should have been a lot wetter. It was positive, on the one hand, because we were able to reach our research site without assistance and, overall, because it made our stay in the field much more pleasant. Notwithstanding, it would appear that the "drought" kept many plants, including orchids, from flowering. Blood sucking insects were tolerable: mosquitos were few, but several members of the team were badly attacked by chiggers and ticks (I escaped with but a few bites). We added at least two new orchids to our checklist, and we suspect that many others will be added, given the immensity and heterogeneity of the terrain yet to be explored and sampled.

We plan to return to Jaguactal this coming June. I will keep you informed and, again, hope to continue counting on your financial support.

Acknowledgments

This expedition could not have been accomplished without the financial support of the Orchid Society of Arizona, the Harvard University Herbaria, and the *Centro de Investigación Científica de Yucatán* (CICY), or without the assistance of our the three local field assistants, Juan Bautista Burgos y Cámara, Arsenio Martín y Castillo, and Rosario Hernández Cruz. José Luis Tapia Muñoz masterfully managed all logistics, and Germán Carnevali Fernández Concha was always there to provide the names of plants I could not remember and to have intellectually and botanically stimulating conversations. I also thank Anai Pereira Zaldivar for completing the list of epiphytes we encountered, which I supplemented and used to compile the appendix.

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- _____. 2016b. Travel to Jahuactal Savanna, June 2016. *The Arizona Orchidist* 54 (August and September): 5–9.

Gustavo A. Romero-González, Keeper, Orchid herbarium of Oakes Ames, Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Massachusetts 02138, romero@oeb.harvard.edu

Notes

- ¹ Sometimes spelled "Jahuactal";
- ² A Ford F-150 SuperCab similar to the one we rode in our last trip, and the same, much older Nissan double-cabin L.U.V. (Light Utility Vehicle) that, like the Ford pick-up, only had rear-wheel drive.
- ³ The *comisario* had told Carnevali that the hiring of our field assistants had been arranged, and that we could count on a four-wheel-drive vehicle to take us to our field site. These two items had not really been arranged. Nonetheless, we quickly contacted Arsenio and Juan, who agreed to come with us, impromptu. We contacted Rosario, Mauro's neighbor, early on Wednesday, and she agreed to come with us. Luckily, this time we did not need a 4-wheel drive vehicle!
- ⁴ During part of the year, the state of Quintana Roo is, relative to Campeche, one hour ahead.
- ⁵ Ramphastidae include the common toucans, the toucanets, and the aracarís, species of which are all present in the Yucatán peninsula.
- ⁶ Birds that are, of course, different from the common pheasant (*Phasianus colchicus*, Phasianidae), a species originally from Asia but widely introduced in Europe and the Americas as a game bird.
- ⁷ We visited this site in February 2016 (see Romero 2016a).
- ⁸ *Pimenta racemosa* is the source of Tabasco pepper. The famous fragrance Bay Rum is extracted particularly from the leaves of other species in the genus.
- ⁹ According to G. Carnevali (pers. comm. 2017), there are several types of flooded forests like the one we encountered, each dominated by a particular tree species, but *tintales*, in a strict sense, are dominated by *Haematoxylum campechianum* L. and *H. calakmulense* Cruz Durán and M. Sousa (Fabaceae-Caesalpinoideae), called "palo de Campeche" or "palo de tinte": a dye can be extracted from their wood (the generic name is derived from two Greek words meaning "blood" and "wood"). These trees were long harvested from Mexico, Belize, and Guatemala, but nowadays the use of the dye is apparently reduced to a minor artisanal industry.

¹⁰ Caribbean pines in this savanna, currently referred to *Pinus caribaea* Morelet var. *hondurensis* (Sénécl.) W. H. G. Barrett & Golfari, apparently need fire to activate recruitment. The locals disagree, and keep them isolated from fires in the savanna: I could not find any plantlets under the adult trees.

Scaphyglottis sp.¹⁶

¹¹ The second collection of this species in the savanna and in Mexico.

¹² Involving lots of physical labor: large quantities of leaves, flowers (if present), fruits (ditto), and portions of the stem and roots need to be collected and bagged individually. Digging out and collecting the roots of some trees took an hour or more. Each tree had been previously identified by Tapia Muñoz and for each a herbarium voucher was prepared.

¹³ Both species of wild pigs from the Americas, *Tayassu pecari* (Link 1795) and *T. tajacu* (Linnaeus 1758) (Tayassuidae) are found in the Yucatan peninsula.

¹⁴ This species, as currently circumscribed, includes several "varieties" that differ considerably in size, particularly in the size of the sepals; the difference between these supposed varieties is indeed striking.

¹⁵ Not seen or reported in June 2016 (Romero 2016b);

¹⁶ New for the checklist of Orchidaceae of the Jahuactal Savanna;

¹⁷ Found in flower.

Appendix

Orchidaceae of Jahuactal Savanna seen in December 2016¹⁵

Epidendrum martinezii L. Sánchez S. & Carnevali¹⁶

Epidendrum strobiliferum Rchb.f.¹⁷

Liparis nervosa (Thunb.) Lindl.¹⁵

Lophiaris oerstedii (Rchb. f.) R. Jiménez, Carnevali & Dressler

Notylia orbicularis A. Rich. & Galeotti

Ornithocephalus inflexus Lindl.

Prosthechea boothiana (Lindl.) W. E. Higgins

Prosthechea cochleata (L.) W. E. Higgins¹⁷

Rhettanthia friedrichsthalii (Rchb. f.) M. A. Blanco¹⁷

Scaphyglottis behrii (Rchb. f.) Benth. & Hook. ex Hemsl.

OSA April 2017 Calendar

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 Phillip Liu  Bob MacLeod
2	3 OSA Meeting 7 PM	4	5	6	7	8
9	10	11	12  Sally Griffith	13	14	15
16	17	18	19	20	21	22
23 30	24	25	26	27	28	29



Orchid Society of Arizona

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