



S.F.V.B.S.

SAN FERNANDO VALLEY BROMELIAD SOCIETY

JULY 2019

P.O. Box 16561, ENCINO, CA 91416-6561

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Elected OFFICERS & Volunteers

Pres: **Bryan Chan** V.P.: **Joyce Schumann** Sec: **Leni Koska** Treas: **Mary Chan** Membership: **Steffanie Delgado**

Advisors/Directors: **Steve Ball, Richard Kaz -fp, & Carole Scott-fp**, Sunshine Chair: **Georgia Roiz** Refreshments: **vacant**

Web & Editor: **Mike Wisnev**

Snail Mail: **Nancy P-Hapke**

Instagram & Twitter & Face Book: **Felipe Delgado**

next meeting: Saturday July 6, 2019 @ 10:00 am

Sepulveda Garden Center 16633 Magnolia Blvd. Encino, California 91436

AGENDA

9:30 – SET UP & SOCIALIZE

10:00 - Door Prize drawing – one member who arrives before 10:00 gets a Bromeliad

10:05 -Welcome Visitors and New Members. Make announcements and Introduce Speaker

10:15 –Speaker – Ernesto Sandoval - Plant Hormones: Knowing and Managing Them for Better Bromeliads

Have you ever wondered why your plant has a sudden burst of growth after transplanting? Or how



the plant "knows" to grow new parts when pruned or how a cutting knows to make roots? Maybe you've even wondered about how a banana knows to ripen or why leaves all of a sudden turn yellow when you bring a plant home? Find

answers to these questions and others about why your plants grow the way they do during this

informative yet not so technical presentation by Ernesto Sandoval, Director of the UC Davis Botanical Conservatory. It's a presentation you're sure to enjoy, and won't want to miss. ◊◊◊

11:15 - Refreshment Break and Show and Tell:

Will the following members please provide refreshments this month: **C D E F G and H and anyone else who has a snack they would like to share.** If you can't contribute this month don't stay away.... just bring a snack next time you come.

Feed The Kitty

If you don't contribute to the refreshment table, please make a small donation to ([feed the kitty jar](#)) on the table; this helps fund the coffee breaks.

11:30 - Show and Tell is our educational part of the meeting – Members are encouraged to please **bring one or more plants.** You may not have a pristine plant but you certainly have one that needs a name or is sick and you have a question.

11:45 – Mini Auction: members can donate plants for auction, or can get 75% of proceeds, with the remainder to the Club

12:00 – Raffle: Please bring plants to donate and/or buy tickets. Almost everyone comes home with new treasures!

12:15 - Pick Up around your area

12:30 –/ Meeting is over—Drive safely ◊◊◊

Announcements

South Bay Bromeliad Associates – 2019 Bromeliad Plant Show and Plant Sale

Where: Rainforest Flora Nursery - 19121 Hawthorne Blvd. Torrance, CA 90503

When: Plant Show---**Saturday**, August 3rd noon - 4:00pm (**judging over at noon**)

Plant Show - Sunday, August 4th 10:00am - 4:00pm

Plant Sales ----Both days 10:00am - 4:00pm Free Admission and Free Parking

This is a must- see Bromeliad plant show! Rainforest's exotic retail nursery location provides the space for some of the best growers in Southern California to display and sell their Bromeliads. This is a judged show and all Bromeliad growers are welcomed to enter.

The show will feature many species, hybrids, and cultivars that are not commonly seen. SBBA members and Rainforest's employees will be available to answer any questions you may have. Many plants will be offered for sale from commercial vendors and SBBA member's private collections.

Ted Johnson, Show Chairman of South Bay Bromeliad Associates, Jerry Robinson and Paul Isley of Rainforest Flora extend a hearty "welcome" to all and hope you will come to share this rewarding experience with us. **Direct Inquiries to:** Bryan Chan (818)366-1858 bcbrome@aol.com

- **SFVBS Participation Rewards System** – This is a reminder that you will be rewarded for participation. Bring a Show-N- Tell plant, raffle plants, and Refreshments and you will be rewarded with a Raffle ticket for each category. Each member, please bring one plant <>

Please pay your 2019 Membership Dues

NEED TO RENEW ?.....

Pay at the meeting to: Membership Chair –Steffanie Delgado or Treasurer - Mary Chan

or Mail to: SFVBS membership, P.O. Box 16561 - Encino, CA 91416-6561

Yearly Membership Dues - \$10 for monthly e-mail newsletters or \$15 for snail mail

Please Put These Dates on Your Calendar

Here is our 2018 Calendar. Rarely does our schedule change..... however, please review our website and email notices before making your plans for these dates. Your attendance is important to us

Saturday August 3	STBA
Saturday and Sunday August 3-4	SBBA show and sale
Saturday September 7	STBA
Saturday October 5	STBA
Saturday November 2	STBA
Saturday December 7	Holiday Party

STBA = Speaker To Be Announced

Speakers Let us know if you have any ideas for Speakers about Bromeliads or any similar topics?

We are always looking for an interesting speaker. If you hear of someone,

please notify **Joyce Schumann** at 818-416-5585 or ropojo@pacbell.net

This section is open for any Member-contributions of photos or articles....

Mike Wisnev submitted the following article

Bromeliads in Ecuador; courtesy of Jerry Raack.

Jerry Raack is a long-time bromeliad enthusiast (about 50 years!) who recently posted some great habitat photos he took in Ecuador. See <http://botu07.bio.uu.nl/Brom-L/>. He graciously allowed his pictures and emails to be used in the Newsletter. Thanks so much to Jerry!

This plant has been tentatively identified as *Josemania asplundii*, although *J. truncata* var. major is another possibility. This is a new genus described in 2016 in subfamily Tillandsioideae tribe Vrieseeae subtribe Cipuropsidinae- this subtribe is discussed more in the following article.



Jerry says “Locality: Ecuador, Zamora-Chinchipe Province - On road east from Los Encuentros toward the Condor Mnts. Common there, and in bloom (near the end of bloom) at end of January in this region. Grows epiphytically in the trees along the road. Inflorescence is bright red and yellow when in anthesis, and apparently fades fairly quickly post anthesis. Somewhat variable in size, but always with broad leaves, discolored below, and nearly yellowish green above in good light. The plant shown in anthesis had the top portion of the inflorescence broken off. Elevation between 1500 and 1600 meters in this area.”



Taxonomic Tidbits: *Two new genera* *(Waltillia and Gregbrownia) and new complex* *(Cipuropsis-Mezobromelia)*

By Mike Wisnev, SFVBS Editor (mwisnev@gmail.com)

San Fernando Valley Bromeliad Society Newsletter –July 2019

The *Tillandsioideae* subfamily was revised significantly in 2016 based on DNA testing and morphological features. See Barfuss, M.H.J.; Till, W.; Leme, E.M.C.; Pinzón, J.P.; Manzanares, J.M.; Halbritter, H.; Samuel, R. & Brown, G.K. (2016) *Taxonomic revision of Bromeliaceae subfam. Tillandsioideae based on a multi-locus DNA sequence phylogeny and morphology*. *Phytotaxa* 279 (1): 001–097 (“2016 Revisions”).

Before 2016, the subfamily had 8 generally accepted genera -the most well known being *Vriesea*, *Guzmania* and *Tillandsia*. The 2016 Revisions named 13 more genera. For more details, see the Dec. 2016 and Jan. and Feb. 2017 Newsletters.

The subfamily is now divided into three groups: a non-core group of two genera, the *Tillandsieae* tribe and the *Vrieseeae* tribe. *Tillandsia*, *Guzmania* and five newly described genera (one of which is *Gregbrownia*) make up the *Tillandsieae* tribe. The *Vrieseeae* tribe consists of subtribe *Vrieseinae* (including *Vriesea*, *Alcantarea*, a new genus *Stigmatodon* and now *Waltillia*) and subtribe *Cipuopsidinae* (including the *Cipuropsis-Mezobromelia* complex).

This article started out by focusing on two changes in the *Tillandsioideae* subfamily after 2016 – a new *Waltillia* genus and a new *Cipuropsis* species. While *Mezobromelia* and *Gregbrownia* haven’t changed since 2016, the former is part of a complex with *Cipuropsis* and the latter has history with *Mezobromelia*, so they are addressed as well.

Some basics about *Vriesea*. Traditionally, *Vriesea* have been distinguished from *Tillandsia* primarily because they have small appendages at the inside base of their petals, while *Tillandsia* don’t. Most grow in eastern Brazil, but the range extends to Argentina, Bolivia, Venezuela and the Greater Antilles. Almost all species in tribe *Vrieseeae* had once been considered *Vriesea*.



V. gigantea (right) is one of the prettiest species. Photo by Wisnev.

Vriesea generally have fairly soft mesomorphic leaves that form rosettes that hold a lot of water. As shown below, their inflorescences can vary quite a bit- dense or lax, simple or compound. The colors of the bracts can be stunning, or fairly dull. They typically have yellow or white flowers that are distichous. Often the inflorescence forms a paddle. Sometimes the flowers extend well past the bracts, and sometimes they barely do, so you almost don't see them. Often the petals are not radially symmetric - two of them are closer together to each other than the third one. As compared to most other genera in the Tillandsioideae subfamily, they have a unique stigma type.

In 1995, Jason Grant reestablished *Alcantarea* with 10 former *Vriesea* species. (While Harms described it as a genus in 1929, most later authors treated it as a subgenus of *Vriesea*.) Contrasted with *Vriesea*, (1) the flowers are long and narrow and don't last long (usually around 12 hours according to one source), (2) the petals often spiral and droop and become flaccid, and (3) the seeds have hair-like structures at both the top and bottom, while *Vriesea* have them at the bottom. They also usually grow in rocky areas unlike *Vriesea* which usually are epiphytic. A couple pictures are shown later.



V. philippocburgii (left).
Photos by Wisnev.



V. 'Grand Giant' (right), a John Arden hybrid.

Vriesea is one of the larger genera with 227 species, while *Alcantarea* has 42. <http://botu07.bio.uu.nl/bcg/taxonList.php> (6/22/19) Interestingly, there were 237 *Vriesea* species on March 10, 2018 so some of them have been moved to other genera or combined with other *Vriesea*.

Waltillia is a very new monotypic genus, which means there is only species in the genus. The species is *W. hatschbachii*, first described as a *Vriesea* in 1975 and then moved to *Alcantarea* 20 years later. In 1995, Elton Leme moved *V. hatschbachii* to *Alcantarea*, and in 2017 it was moved to *Waltillia*. See Leme, E.M.C., Barfuss, M. and Halbritter, H. *Waltillia*, a new monotypic genus in Tillandsioideae (Bromeliaceae) arises from a rediscovered, allegedly extinct species from Brazil. 2017. *Phytotaxa* 299 (1): 001–035.



Waltillia hatschbachii. Photos by W.Milliken. RBG, Kew.

<http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:1089279-2#source-SP> Digital Image
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In a 2009 field study, Royal Botanical Gardens, Kew rediscovered the plants in habitat. An extensive examination of these new plants revealed that this species differed from both *Vriesea* and *Alcantarea*. DNA testing showed it was sister to *Alcantarea*, and it was placed in a new genus, *Waltillia*.

Waltillia hatschbachii may be the only species in its subfamily in Brazil to grow along streams or wet soil. Its rosette does not hold water and it can take full sun. Like tribe Tillandsieae species (but very few members of its own Vrieseeae tribe), it has no petal appendages. It is the only species with operculum pollen sulcus in its tribe, but some *Tillandsia* have them. It has the same stigma type as *Vriesea*, but different from *Alcantarea*. It has similar seed to *Alcantarea*, but they differ from *Vriesea*. As compared to its closest relative (*Alcantarea*), its petals are relatively shorter and remain erect after flowering, and it has different pollen and stigma type. It also grows in rich soils, while *Alcantarea* grow in rocky areas.

You can compare the *Waltillia* flower above with those of *Alcantarea* below.



Figure 6: *Alcantarea lurida* Leme which flowered in cultivation (photo E. Leme).



Figure 3: Flower details of *Alcantarea distractila* Leme & Paula in early anthesis.

Alcantarea turgida (as *A. lurida*) (left) photo by Leme. *A. distractila* (right) photo by Paula and Leme. 58(1) JBS 6 & 9 (2008). The photo on the left shows why this genus had been considered *Vriesea*, while the one on the right shows its very different flowers. *A. lurida* was described in 2008 and in 2015 it was transferred to *A. turgida*, which had been described in 2007.

***Cipuopsis -Mezobromelia* complex**. As noted, *Waltillia*, *Vriesea* and *Alcantarea* are in subtribe Vriesinae. Subtribe Cipuopsidinae includes *Werauhia* (also described by Jason Grant in 1995), five genera first described in the 2016 Revisions (*Goudaea*, *Jagrantia*, *Lutheria*, *Josemania* and *Zizkaea*), and the *Cipuopsis-Mezobromelia* complex.

The actual phylogenetic tree had two branches for the complex – one consisting of 3 *Mezobromelia* species and one *Tillandsia*, and the other of 4 mesomorphic northern Andean ‘*Vriesea*’ species and *Tillandsia amicorum*. The authors of the 2016 Revisions concluded that this latter group was consistent with *Vriesea subandina*, which had first been described as *Cipuopsis subandina* by Ule in 1907.



Cipuropsis amicorum (previously *Tillandsia*). Photo by Gouda. 66(2) BSJ at 78.

There was a problem here since this species was not in cultivation and could no longer be found. Since it could not be included in the study, it isn't clear exactly where the genus belongs in this subtribe. As a result, they "decided, for now, to resurrect *Cipuropsis* only provisionally." Id at 36. The 2016 Revisions didn't include other species in the genus for this reason, but said "most probably the mesomorphic northern Andean 'Vriesea' species ... and *Tillandsia amicorum* ... belong here." Id at 51. Six *Vriesea* were listed as candidates: *V. dubia*, *rubra*, *zamorensis*, *elata*, *altomayoensis* and *duidae*.

***Cipuropsis*.** In 2017, Eric Gouda described a new *Cipuropsis* species – *C. asmussii*. See Gouda, E. J. A new species of *Cipuropsis*, and some remarks about this recently resurrected genus. 66(2) BSJ 75 (2017).



Figure 7. *Cipuropsis asmussii* flowering plant growing epiphytically at the type locality. Photo by Matthias Asmuss.

Cipuropsis asmussii. Photo by Asmuss. Id at 82

“On the basis of available information, *Vriesea dubia* (L.B.Sm.) L.B.Sm. (1967) seems to be the species most closely related to *C. subandina*.” Id at 75. In turn, *V. dubia* is very similar to *Tamicorum* and a previously undescribed species. He described the latter as *Cipuropsis asmussii*, and transferred *Tamicorum* to *Cipuropsis* as well. Both grow in Venezuela at about 1000-1400 m altitude.

The article stated *Cipuropsis* “has mesomorphic (thin) leaves, water-impounding rosettes and *Tillandsia* like inflorescences, with relatively small densely imbricate floral bracts and small flowers, short connate white or yellow petals with two nectary scales (ligules) at the base like in *Vriesea sensu str.*” Id at 75-7.



Figure 9. *Cipuropsis asmussii* inflorescence detail showing the flowers and bracts. Photo by Matthias Asmuss.

Cipuropsis asmussii. Photo by Asmuss. Id at 84.

Many of the potential *Cipuropsis* species have floral bracts that red or orange with a white or yellow apex. They grow in the Andes while most *Vriesea* are in eastern Brazil, and the two have different stigma types. In addition, many may pup from the inside of the rosette next to the inflorescence.

A few more comments are in order. I had almost called this article “Two new genera.” But *Cipuropsis* was described in 1907 by Ule so it isn’t new. Smith transferred it to *Vriesea* in 1945. Note, however, that there is no governing body that determines whether it should be a *Cipuropsis* or *Vriesea*. At times, botanists will disagree on matters like this, with some recognizing one genus and others a different one. Like *Cipuropsis*, *Sincoraea* is another genus described by Ule that disappeared (when it was , transferred to *Orthophytum*) and has recently been resurrected.



Figure 4. *Cipuropsis amicorum* detail of inflorescence, showing the bright coloured bracts, and flower with snow white petals, note the membranaceous veined floral bracts with hyaline margins and apex. Photo by Eric Gouda.

Cipuropsis amicorum (previously *Tillandsia*).

Photo by Gouda. 66(2) BSJ at 79.

The article will continue next month.