

<u>S.F.V.B.S.</u>

SAN FERNANDO VALLEY BROMELIAD SOCIETY

APRIL 2019

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

sfvbromeliad.homestead.com Twitter is: sfvbromsociety

sanfernandovalleybs@groups.facebook.com Instagram is: sfvbromeliadsociety

Elected OFFICERS & Volunteers

Pres: Bryan Chan V.P.: Joyce Schumann Sec: Leni Koska Treas: Mary Chan Membership: Stephanie Delgado Advisors/Directors: Steve Ball, Richard Kaz –fp, & Carole Scott, Sunshine Chair: Georgia Roiz Refreshments: vacant Web: Mike Wisnev, Editor: Mike Wisnev Snail Mail: Nancy P-Hapke Instagram & Twitter & FB: Felipe Delgado

next meeting: Saturday April 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

<u>10:15 – Speaker</u> – Bryan Chan - Spring Ahead With Bromeliads

Here it is spring, already! Time to start moving our plants from winter to summer care. Our very own Bryan Chan has volunteered to offer his words of wisdom regarding the various aspects of the summer activities of the bromeliad world.

Bryan Chan has been a member of three Los Angeles area Bromeliad clubs since the late 1980's and also is a long-time member of Los Angeles Cactus and Succulent society as well. He has been growing plants most of his adult life and maintains a large plant collection. As a hobbyist plant collector/grower he has created hybrids in a few different plant groups. His primary focus is bromeliads, although he has been growing many other types of plants which include cactus and succulents, orchids and bulbs.

Bryan's talk will center on Bromeliad culture, preparing plants for show, hybridizing and propagation.

If you have any problem plants, this would be a good time to bring them in for "Show & Tell".

11:15 - Refreshment Break:

Will the following members please provide refreshments this month: **M**, **N**, **O**, **P** 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 (<u>feed the kitty jar</u>) 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 plant may not be pristine but you certainly have one that needs a name or you have a question about.

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 <>



<u>Participation Rewards System</u> – 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 – Stephanie 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 2019 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 April 6	Bryan Chan
Saturday May 4	STBA
Saturday June 1	STBA
Sat & Sun - June 8-9?	SFVBS Bromeliad Show & Sale
Saturday July 6	STBA
Saturday August 3	STBA
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 at 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 <u>http://botu07.bio.uu.nl/Brom-L/</u>. He graciously allowed his pictures and emails to be used in the Newsletter.



Re the one below, possibly *G. aff squarrosa*, Jerry said "This is one of several *Guzmania* found at this high elevation (2284m), wet, windy location. They are difficult to identify positively at this location because they all grow together (*G. mosquerae, G. aff squarrosa, Guzmania garciaensis* and an unknown *Guzmania*), plus some hybrids between them I believe). In any event this beautiful *Guzmania* has long red bracts, and I believe it has white flowers. These plants grow as terrestrials in deep sphagnum moss under very wet conditions and can develop fairly long stolons as the new offset emerges typically from just off-center of the old inflorescence.



Taxonomic Tidbits Neoregelia Part 2 - subgenus Hylaeaicum

By Mike Wisnev, SFVBS Editor (<u>mwisnev@gmail.com</u>) Photos by Wisnev unless noted. San Fernando Valley Bromeliad Society Newsletter – April 2019

Last month covered the basics of *Neoregelia*. They had been known as *Aregelia*, described by Mez in 1896, until Smith noted that name couldn't be used and gave them the *Neoregelia* name. It wasn't until 1976 that Smith and Read described a second *Neoregelia* subgenus, called subg. *Hylaeaicum.* The type plant of that subgenus is *Nidularium eleutheropetalum*, which was described in 1907 by Ule, and now considered a *Neoregelia*.

N. eleutheropetalum rubra



This species is apparently somewhat variable, and some have wondered if there is more than one species involved. The leaves are generally green, often with red on the inner leaves, but can become redish in more sun. Some have ligulate leaves while others like the one above are more triangular. Some have leaves over 1 meter long! You might wonder why it took from 1907 until 1976 to recognize the new subgenus since the plant had been described. Well, actually it didn't, as described in more detail by Leme in his 1997 *Canistrum* book. Mez recognized *Hylaeaicum* as a subgenus of *Aregelia* in 1934-5 in his last monograph, but Smith didn't seem to agree for about 40 years. In fact, Smith described them in a different subgenus in 1967, subg. *Amazonicae*. This name was superfluous and is now ignored.

As Leme notes, Ule first used the name *Hylaeaicum* (named after the Amazon forest) as a temporary name for *N. eleutheropetalum* and *N myremecophilum* back in 1907. Ule called them *Nidularium*, but indicated they really didn't belong in any known genus.



N. eleutheropetalum

If you look at last month's article, you can see the petals above are narrow and more lanceolate than those of subg. *Neoregelia*.

As an aside, this was one of many rather prescient decisions of Ernst Heinrich Ule, a German botanist who lived in Brazil for about 30 years. He also described *Sincoraea* back in 1907, a genus long subsumed in *Orthophytum* until recently revived. Similarly he described *Cipuropsis*, subsumed into *Vriesea* until recently revived. At least five different genera in other families have been named after him.

So what exactly distinguishes this second subgenus? In his Studies in the Bromeliaceae III (1932), Smith said that Ule had not directly indicated why the species differed from other genera, but indicated points of similarity. From this, Smith inferred that Ule believed the species differed from *Canistrum* on the basis of naked petals, from *Nidularium* since it has free petals and from *Aregelia* since it has free petals and a compound inflorescence. When Mez moved it into *Aregelia*, his key differentiated it on the basis of a branched corymbose inflorescence.

N mooreana



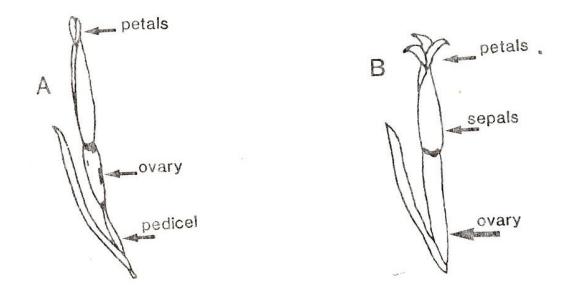
This is another member of this subgenus. Its habitat is Peru and Ecuador, far from the eastern Brazilian locations of the subg. *Neoregalia*.

Its reflexed leaves are rather unique, as is the fact the leaf sheaths are about as long as the leaf blades. Another species, *N. peruviana*, has been synonymized even though it doesn't share these features. Smith & Downs took a different approach in his 1979 Monograph on the Bromelioideae subfamily (p1533) as noted below:

"1. Petals free; pedicels usually obscure (distinct in *N. aculeatosepala)* and merging with the slender ovaries. Amazon Basin.
1. Petals connate; pedicels usually distinct (obscure in *N. laevis)* and making a sharp contrast with the base of the stout ovary. Eastern Brazil.

Ivon M. Ramirez, who is currently studying *Hechtia*, studied this subgenus in earlier years (she also studied *Cryptanthus*, as noted in earlier Newsletters.) In fact, her master's dissertation was a 226 page work titled Systematic revision of *Neoregelia* subgenus *Hylaeaicum*.

Figure 1. Diagrams showing floral differences on <u>Neoregelia</u>: (A) Subgenus <u>Neoregelia</u> where there is a sharp difference between ovary and pedicel; and subgenus <u>Hylaeaicum</u> with the absence of distinction between ovary and pedicel.



The above diagram is from Prof. Ramirez's 1991 dissertation

Leme stated the most significant aspect of this work is that she found this subgenus is surprisingly close to *Aechmea* subg *Lamprococcus*. She later found that most species in this subgenus have petal appendages, unlike subg. *Neoregelia,* and that it may well be a different genus.

Leme continued to study this subgenus in connection with his works on the nidulariod complex. His *Canistrum* Book noted 11 different characteristics to separate the two subgenera, some of which are noted below. They are usually epiphytes with long stolons. The leaves are leathery and spiny and without a crease between the sheath and blade. The petals are free (not connate), white and narrow and linear lanceolate with appendages. The sepals are assymetrical. The fruits are white at the base and lilac to blue at the top.

N. pendula



Above is *N. pendula*, photo by Bromeliario Imperialis. In her dissertation, Prof. Ramirez noted this "is perhaps the most beautiful species of the genus for horticultural purposes due to the compact plant size, small rosette, bright red inner leaves and white flowers. It is relatively easy to grow and blooms throughout the year."

In addition, the inflorescence is usually compound. Sometimes a species has a pseudosimple inflorescence. Generally, this means it has branches, but they are so undeveloped that it appears simple. Leme defines the term to include an inflorescence with branches that are underdeveloped, abortive or arrested, or with only a single flower.

Although technical, the most interesting part may be Leme's statement in his *Canistrum* book (p 90) that "Leaf-anatomy studies on *N. eleutheropetala, N myrmecophila, N. tarapotoensis* and *N. aculeatosepala* have shown that these species possess groups of fibers dissociated from the vascular bundles. This fact demonstrates how close *Hylaeaicum, Aechmea* and *Canistrum* are phylogenetically, and how far the Amazonian subgenus is from the typical subgenus of *Neoregelia* (Sajo, Machado & Guerreiro, unpubl. data)." Leme's *Canistropsis* book had an entire chapter on this topic.



Like *N. eleutheropetala,* this species was also first described (in 1906) as a *Nidularium* and populations of *N myrmecophila* in Venezuela and Columbia are sometimes confused with the former. It also grows in Ecuador and Peru. According to one source, this species is smaller than *N eleutheropetala,* has a different stigma type, and has more reddish inner leaves.

At this point I was a bit unsure if my *N eleutheropetala* was correctly labelled. Prof. Ramirez says one cultivar has red leaves, sometime called Rubra, which appears consistent with mine. I also realized it looked differently when I got it. The first picture in this Newsletter of the same plant (with all red leaves) was taken in July 2014, yet the plant had changed quite a bit from when I got it in January 2014, as shown below. It bloomed in September and looked different again, as seen in the photo on the right!



N elutheropetala in January and September 2014. As I recall, the plant started to develop a pup, but didn't survive its first Los Angeles winter.

Like some forms of *N eleutheropetala*, two other species in the subgenus have ligulate leaves according to Smith & Downs. However, Prof Ramirez describes the leaves as triangular, and the pictures look triangular. In any case, these are *N leviana and N. margaretae*, the former distinguished by its short leaves (about 6 inches) with leaf blades about the same size as its leaf sheaths. Margaret Mee found both species in the mid 1960s; both grow in the Brazilian Amazon. See more about her on the next page.

N. wurdackii was found by Wurdack in 1962 in Peru at 300-350 m and described by Smith the next year. Like most species in the subgenus it has narrow triangular leaves. They are fairly long and the inner leaves can be quite pink as shown on the next page. It is considered close to *N. rosea* found by Wurdack in the same year. *N rosea* has shorter and perhaps wider leaves with connate sepals, as opposed to the free sepals of *N wurdackii*. One photo in Derek's materials shows all red leaves while the other is much like the *N. wurdackii* below.

N. wurdackii Photo by Bromeliario Imperialis



Neo wurdackii

N. tarapotoensis is the another species with ligulate leaves. The species was found by Rauh in 1983 in north-east Peru at 1200 m and described by him two years later. As shown below, it pups via long thin stolons as is the case with most if not all species in this subgenus. Some clones have a lot of purple in their leaves. Interestingly, Prof Ramirez says it has no close relatives. It is shown on the next page.

I am not sure of the current numbers of species in this subgenera – at one point there were about ten of them, all of which are shown or discussed in this article.





To the left is *Aechmea recurvata*, painted by Margaret Mee. Cover of 58(6) BSJ (2008). Mee found *N margaretae and leviana* and illustrated both.

She is best known for her beautiful illustrations of plants (many of which are orchids and bromeliads) in the Amazon. She published at least 4 books with her paintings.

N mooreana, pendula and myrmecophila (all shown earlier) have triangular rather than lingulate leaves. *N stolonifera* is another small species with long stolons, but it has triangular leaves. Apparently it often produces two stolons, as seen below. This is the type speciman for *N stolonifera*, collected by Lee Moore in 1963 and housed at the Smithsonian Institute National Museum of Natural History. Creator - Ingrid P. Lin.



https://www.si.edu/sisearch/collection-images?edan_q=neoregelia%2Bstolonifera

As indicated above, it seems unlikely that this subgenus will remain in *Neoregelia*. The key in Elton Leme's *Canistropsis* book (1998) is consistent with this. Subgenus *Hylaeaicum* and *Canistrum* (and the *Aechmea* related to the Nidulariod complex) appear on the portion of the key with asymmetical sepals with a wing. [This feature was discussed at length in connection with *Canistrum*.] In contrast, the other subgenera of Neoregelia (and the other genera of the Nidularioid complex) generally have symmetrical to subsymmetrical sepals. Leme generally distinguishes subgenus *Hylaeaicum* from *Canistrum* based on the simple or pseudosimple inflorescence of the former.