



S.F.V.B.S.

SAN FERNANDO VALLEY BROMELIAD SOCIETY

MARCH 2019

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

sfvbromeliad.homestead.com

sanfernandovalleybs@groups.facebook.com

Twitter is: *sfvbromsociety*

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-fp** Sunshine Chair: **Georgia Roiz**
Refreshments: **vacant** Web & Editor: **Mike Wisnev** Snail Mail: **Nancy P-Hapke** Instagram & Twitter & FB: **Felipe Delgado**

next meeting: Saturday March 2, 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 – *Joey Anthony*
*“Basic Growing Tips in Microclimates”***

Using his experience in moving from one microclimate to another, Joey will share his observations on the importance of temperature, water, humidity and light to increase your success in caring for your Tillandsias. Joey has been growing Tillandsias for over seven years as a commercial grower (Plantaflor) supplying many markets. Joey will be bringing a varied selection of plants to sell – something for the newbie, the experienced collector and all levels in between. You don't want to miss this !!!

Plantaflor is a family owned and run business. That has been involved with everything from flowers and foliage to plants since they emigrated here from the Netherlands in the early 80's. The company always sets out to find the most unique and innovative products available, and they quickly took a liking to Tillandsias. These drought tolerant plants do not require soil.

continued

Recently they have added unusual succulent and cacti varieties to their production line, seeking beautiful, low maintenance plants. **On the last page see a few pictures of the greenhouses.** <

11:15 - Refreshment Break and Show and Tell: Will the following members please provide refreshments this month: **H, I, J, K, L** 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 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 <

Library Literary Listings

March, 2019

We just received the latest BSI Journal – Volume 68 (1) for Jan-Mar, 2018. The first two articles will challenge our knowledge of terminology. Do we know what “*indument*” or “*coriaceous*” refers to? Tell me what the definition is and I will give you a free raffle ticket. The first article describes a new species of Tillandsia (last month’s speaker, Guillermo Rivera referred to it in his program) and the second article discusses the trials and tribulations of taxonomy. Both very informative and challenging.

The remaining five articles are easier reading. My favorite covered an Italian exhibition of Tillandsia. Not to show favoritism too much, I was also interested in the article “*Understanding the Basis of Drought Tolerance in Bromeliads.*” Which, for us, begs the question – Is the drought over?

For anyone new, the library is easy to use. Each book or journal has an old fashioned library card attached with a paper clip. Just remove the card, write your name and the date (month & year) on it and give the card to me (Joyce). The item is yours for the month. Be sure to return it the next month and make sure I know you return it. Best bet: put it in my hands, look into my eyes and say “I am returning this”.

It is all good reading, so make sure you stop by the Library and **Check it out** See you soon, Joyce

Announcements:

- **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 – 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 *Part 2*; 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 this Newsletter. Many thanks!

Guzmania claviformis.

Jerry said “On side road off of Hwy 45 14 km north of Gualaquiza at an elevation of 1580 meters. These were growing in old trees of a remnant forest that is now a pasture.



I also saw this plant on the road from Los Encuentros going east toward the Condor Mountains. Note: Grows in concert with *Tillandsia confinis*, *Tillandsia fendleri*, and *Tillandsia tovarensis/maculata* complex. A large plant growing epiphytically.’

On this page is *Puya sodiroana*. "Locality: Ecuador, ...east of Santiago at an elevation of 2501 meters. This valley through which the Rio Santiago runs had many interesting bromeliads, including a very beautiful spotted form of *R. biflora*, *T. clavigera*, *T. fragrans*, *T. humboldtii*, *T. porphyrocaspada* and other *Racinaea*."



Puya sodiroana

Taxonomic Tidbits

Another well known genus – Part 1

By Mike Wisnev, SFVBS Editor (mwisnev@gmail.com) Photos by Wisnev unless noted.

San Fernando Valley Bromeliad Society Newsletter – March 2019

The Tidbits articles first appeared back in July 2013. A few Newsletters had two articles, so there have been over 50 them. Almost all discuss genera that have a lot of species, are commonly grown here and/or have recently been revised in some way. Some genera have been discussed at length – there are about 13 about *Billbergia*, about 15 on *Tillandsia* and *Vriesea* and five on *Orthophytum*. At least one article has been devoted to the well-known *Dyckia*, *Hechtia*, *Puya*, *Guzmania* and *Cryptanthus*, as well as the lesser known *Canistrum*, *Canistropsis*, *Wittrockia*, *Edmundoa*, *Ronnbergia* and *Wittmackia*. At least half an article was devoted to *Portea* and *Nidularium*.

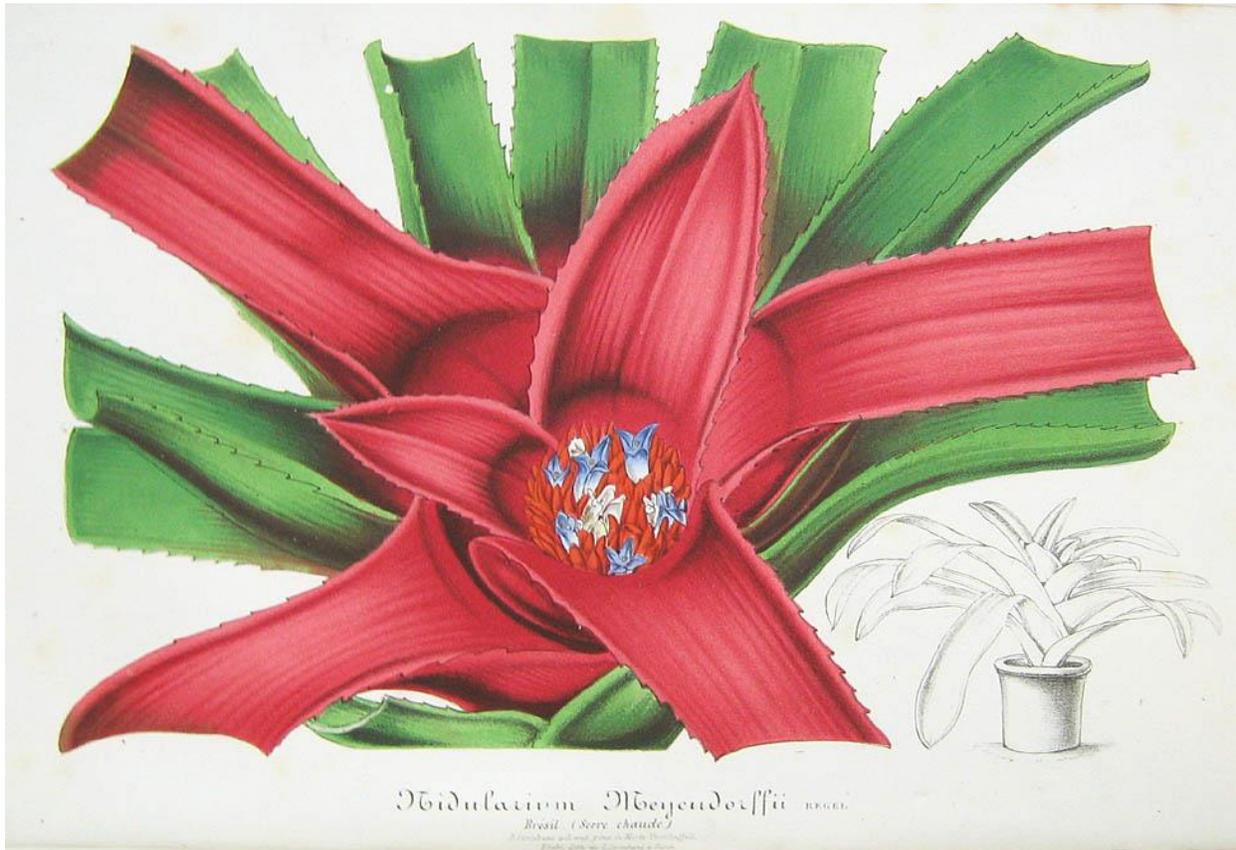
Notice any particular omissions? One very well known? With more cultivars than any other genus? How about Neos? Well there was one short article about *Neoregelia simulans* and *laevis*, and some others mention them briefly. But for an extremely well-known genus that is commonly cultivated here, it has received scant attention.

The reason –it seemed too hard. With most species in one subgenus, an inflorescence buried in the rosette with small flowers (most of which seem to be blue and white) and a key based on inflorescence features, the topic seemed pretty daunting (both for me to write, and you to read). I figured sometime I would write an article with mainly pictures, but I have avoided those. They may be more popular, but just google the genus and look at all the pictures. Or go to BCR and look at new cultivars. These sources do a much better job than I can ever do if you want primarily pictures.

A few things have changed. First, there are some relatively new subgenera. Second, the genus is part of the Nidularioid complex, which was the focus of recent articles. Finally, to my complete surprise, I found out that Leme's *Canistropsis* book has almost as much about *Neoregelia* as *Canistropsis*.

The genus holds some surprises for both new members and those well versed in bromeliads. As of 7/31/17, the Bromeliad Cultivar Register listed some 6766 *Neoregelia* cultivars - by 3/ 20/19, the number grew to 7245 ! <http://registry.bsi.org/> Many have suggested that for every registered one, there may 2 more that aren't registered or perhaps even named. If correct, that means there are over 20,000 Neo hybrids and cultivars. So you might think there must be tons of species as well. As of April 2018, , the Bromeliad Taxon List listed 123 Neo species. <http://www.bsi.org/new/the-new-bromeliad-taxon-list/>

Another surprise is the name. While most genera were named in the 1800's, *Neoregelia* didn't show up until 1934. The type plant is *Billbergia meyerendorffii* Regal (now synonymized with *N carolinae*).



N. carolinae, as *Nidularium meyerendorffii*. Ill. Hortic. pl. 245. 1860. For those new to the hobby, the red inner leaves are typical of many species in the genus when the plant flowers. The blue and white flowers are also typical.

Regal soon moved this species to *Nidularium*, and in 1860 Lemaire moved both this species and *N. cruenta* to *Nidularium* subg. *Regelia*.

Lindman elevated subg. *Regelia* to a genus (with 22 species) in 1890, and Mez renamed it *Aregelia* in 1896 (with 20 species). In 1934 Smith gave them the current name, noting that Kuntze had proposed *Aregelia* for *Nidularium*, so it can't be used again by Mez. (Smith didn't mention *Regelia*, but it had also been used before for another genus, so couldn't be used again.) Mez's 1934-5 monograph continued to use *Aregelia* and listed 34 species. The Smith & Downs monograph in 1979 listed 71 species.

N. cruenta was described even earlier than *N. meyendorffii* - in 1828 as a *Bromelia*, and the next year as *Billbergia*. It can be a great landscape plant as shown here at Huntington Botanical Gardens.

N. cruenta



Neos are grown for their foliage, not their flowers which are small, and often blue and white. The inflorescence is very short, and buried in the throat of the plant. So if you don't look straight down, you won't see it.



N. cruenta.



N. 'DeRolf'

Another popular species is *N. johannis*. A variegated form is called N. 'DeRolf' and is shown above. As you can see this species has all white flowers. There were reportedly millions of this species in Rio de Janeiro state.

The *Neoregelia* description in the Smith & Downs Monograph on Bromelioideae (1979, p 1533) describes the inflorescence and flowers as follows: "scape short, completely enclosed. Inflorescence central, sunk in the center of the rosette, simple in most species, very densely capitiform, umbellate or corymbose. Flowers perfect, pedicellate. Sepals asymmetric; petal-blades spreading, acuminate, violet, blue, white or rarely red; stamens and pistil included."

The pictures above showed some different colored flowers, and that the flower parts (stamens and pistil) did not extend above the petals and thus are considered "included." Let's see if some of the features can be shown.

I pulled out a flower of the one on the left below, labeled *N corriea-araujoi*, and you can see the floral bract as well as the short white pedicel that connects to ovary and then the green sepals. The flowers are described as about 8 cm long, and this one was close.

Like *N cruenta*, this plant can take a lot of sun.



I had always wondered about the inflorescence – just what is under all those flowers. So I took one apart – an unlabeled one on the right above. The petal lobes are violet and the lower part (sometimes called a claw) of the petal is white. Here you can see only one flower is in full anthesis, though others are starting to emerge. This is very common, and allows the plant maximum time to be pollinated.

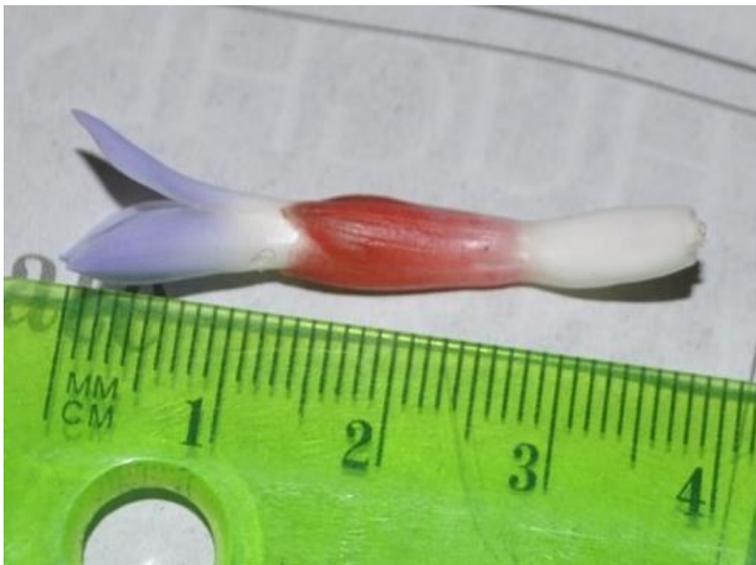
Here you can see the entire inflorescence of this unknown Neo, including the “short scape, completely enclosed” as Smith & Downs refer to it. It is the white cylindrical base on the left. It is actually the peduncle, but incorrectly called scape in the bromeliad world. You can also see it is a simple inflorescence - there are no branches, like a *Billbergia* or *Aechmea*. The large wide pointed piece is a peduncle bract. You can also see some thinner floral bracts.



Continuing to rip it apart, you see all the flowers seem attached to the top of the peduncle. This shows the inflorescence is “very densely capitiform, umbellate or corymbose.” In the context of a dense *Neoregelia* inflorescence, there isn’t much difference in these three terms – it is primarily a question of where the flowers are attached to the peduncle.

Each flower also has a pedicel, which is the white narrow cylindrical structure at the very bottom of the flower, which connects to the peduncle on the bottom and white more rounded ovary at the top.

This also shows the floral bracts – the long thin parts that seem clear at the base and red at the top. There is one for each flower.



Each flower has one white ovary, three red sepals and three white/violet petals.

These numbers are true for all bromeliad species, though you may encounter a genetic freak now and then.

All Neos have an inflorescence that looks much like the ones above. While they may differ taxonomically, these differences (apart from color) are difficult to see without dissecting the inflorescence. However, some other species of the Nidularioid complex can look a lot like them even if flower, though we are not likely to see many of those in our area.



Leme notes that most Neos have flowers that twist in different ways after anthesis, a feature that doesn't exist for other genera in the complex. Some twist into a spiral, while other species have petals that can twist downward and obstruct the flower. You can see two twisted flowers to the left, and one in anthesis. This is *N. 'Magenta Magic'*, a cultivar of *N. Bingo* by Bill Baker.

Neo. marmorata.

Known for its spotted leaves, I suspect this one has been used quite a bit for hybridization.



Neo. kautski (below) was described in 1971 and was known then only from its type collection in Espirito Santo, Brazil.



Neo. zonata is known for its striped leaves.



This one was labeled *Neo. concentrica* from Bill Baker.



Neo. spectabilis.

Typically the upper side of the leaves is green and the lower is red with bands - this one got a lot of sun and the upper side is also red.



Neo. ampullacea WBC 94.



For those of you who want something smaller, there are always the mini-Neo's. This is one of the more popular ones. According to an article in 1992, 'bromeliad species such as *Neoregelia ampullacea* show considerable variation. Over 40 distinct forms are known in cultivation. By current botanical classification, none is different enough to warrant variety status but many have cultivar names... Their climbing or cascading growth habit is an arresting sight when allowed to ball or mass into 100-tube colonies.' Geoff Lawn in JBS 42(5): 195-6. 1992.

As noted in the lengthy series about the Nidularioid complex last year, Neos are actually part of that complex. In the 1979 Smith & Downs key, they weren't even close to the other genera in the complex. Neos (and many other genera) fell into a group with pedicellate flowers, while the other Nidularioid complex members have sessile flowers.

As is often the case, how much sun they get matters greatly. The September 2017 Newsletter featured *N. laevis*, frequently mislabeled *N. simulans*. It grew prolifically in the shade and I moved some to a sunnier location. I suspect it will burn in the summer.



The key in Elton Leme's *Canistropsis* book (1998) generally distinguished Neos (and some *Wittrockia*) based on their simple or pseudosimple inflorescence, as opposed to a compound one for the other genera. (Leme defines pseudosimple to be an inflorescence with branches that are underdeveloped, abortive or arrested, or with only a single flower.) As compared to the *Wittrockia* in this group, most Neos have shorter flower; those with long flowers have longer pedicels than *Wittrockia*.

The actual key is more complicated, and says most *Neoregelia* and some *Wittrockia* have "Inflorescence simple or pseudosimple; primary and floral bracts not involucrate, shorter than the branches and flowers; if distinctly branched, then inflorescence umbellate, or the central leaves becoming rose, red, or white at anthesis; petals strongly spirally twisted or involute-twisted after anthesis; fruits and persistent calyx white or red." Leme's *Canistropsis* book. As best as I can tell, the *Wittrockia* covered above is *W spiralipetala*.

In contrast, the other genera in the Nidularioid complex (excluding *Canistrum*) have “Inflorescence distinctly branched, bipinnate to tripinnate; basal primary bracts distinctly involucrate and exceeding the branches and flowers; if primary bracts not involucrate, then inflorescence corymbose, or nearly so, the central leaves never changing color at anthesis, petals spreading flaccidescient or suberect to erect after anthesis, and the fruits and persistent calyx yellowish-orange.” Leme’s *Canistropsis* book.

You might have noticed that the key indicated the central leaves of some Neos can turn white at anthesis, as opposed to rose or red. *N. lactea* is one such species – I am not sure there are others.

Neo. eltoniana, named after Elton Leme.



2 of Plantaflor Tillandsia Greenhouses

