



S.F.V.B.S.

SAN FERNANDO VALLEY BROMELIAD SOCIETY

MARCH 2020

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

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Twitter is: **sfvbromsociety**

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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 **Mike Wisnev** Editor: **Mike Wisnev & Felipe Delgado** Snail Mail: **Nancy P-Hapke** Instagram, Twitter & Face Book: **Felipe Delgado**

next meeting: Saturday March 7, 2020 @ 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 – Nels Christianson - Peru



This talk will be about Nels' trip to Peru, and will feature many Tillandsia. Nels is a native of Merced, California. Nels has been a member of the CSSA and of the Sunset Succulent Society in Marina del Rey since 1984. He has participated in CSSA trips to Brazil, Argentina, Peru, Oaxaca, northeastern Mexico and the Canary Islands. He is a potter

and sells planter pots at his club meetings. Nels is a member of the Westchester Begonia Society, Culver City Gesneriad Society, Bromeliad Society international, La Ballona Valley Bromeliad Society and San Fernando Valley Bromeliad Society. <>

11:15 - Refreshment Break and Show and Tell: Will the following members please provide refreshments this month: **J K L M N and O** 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 <>

Many, many thanks to Mary K. for all her assistance the last decade as a co-editor of our Newsletters. She has done a great job, and I (Mike) am grateful for all her help. I also want to welcome Felipe aboard as the new co-editor. Lastly, I encourage each of you to think about contributing a brief (or long!) article or some photographs for future Newsletters

Announcements

Starting for 2020, annual dues are now \$15 (\$20 if you receive the Newsletter by snail mail instead of email). You can pay this month at the meeting or at future meetings.

The **World Bromeliad Conference 2020** will be held in Sarasota, Florida, USA from Tuesday, June 9, 2020 through Saturday, June 13, 2020 at the [Hyatt Regency Sarasota](#). Events will include tours of two of the world’s leading Bromeliad nurseries ([Michael’s Bromeliads](#) and [Tropiflora](#)) and a visit to the renowned [Marie Selby Botanical Gardens](#) (with free admission for conference registrants). For more info, see <https://www.bsi.org/new/conference-corner/>.

Please pay your 2020 Membership Dues

NEED TO RENEW ?.....

Pay at the picnic or future meetings 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 - \$15 for monthly e-mail newsletters or \$20 for snail mail

Please Put These Dates on Your Calendar

Here is our 2020 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 4	Norman Caughran
Saturday May 2	John Martinez
Saturday June 6	STBA
Saturday and Sunday June 13-4	Our Club bromeliad show& sale w/ LA Cactus festival

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

Hello to you Society Members.

Didn't we have fun during our February Society Meeting. It was great to see so many of you and even some that had not been to a meeting in a little bit.



We had a great Show and Tell Table as well as a great Raffle Table and a quite full Auction table thanks to Nancy and Ray. Some great plants to be seen and bid on.



As is usual, we had quite a bit of food to choose from including Chili, chips and Ana's great artisanal bread. What a treat! I personally made myself a plate of Nachos with chips, chili and the cheese that our refreshment chair, Steffanie provided. I won't lie, that spice in the chili is what made me go back for seconds. As usual there was also quite a selection of desserts also.

Our speaker, Tom Glavich gave a wonderful presentation on African Bulbs. There was some tremendous photos that almost made me want to start collecting those

lovely Bulbs too, but I held fast and will stick to my Bromeliads!!All in all a great time had socializing, eating, learning and visiting with great people.

See you in March! Felipe

Taxonomic Tidbits:

More about Aechmea - subgenus Chevaliera

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

San Fernando Valley Bromeliad Society Newsletter –March 2020

The number of species in many bromeliad genera has grown the last few decades since new species were discovered. But recently the number of species in some genera has declined. While the number of *Aechmea*, which is the largest genus in the Bromelioideae subfamily grew substantially from 1980-2010, it has declined recently. On October 20, 2015, the Bromeliad Taxon List said there were 283 species; on January 21 2020, there were only 244 species. Butcher, D. & Gouda, E.J. (cont.updated) The New Bromeliad Taxon List. <http://botu07.bio.uu.nl/bcg/taxonList.php> . No new ones were discovered in 2019.

It has long been suspected that neither *Aechmea* nor most of the eight *Aechmea* subgenera are valid as currently delineated. Smith and Down's *Monograph on Bromelioideae* (1979) said "*Aechmea* includes some very discordant elements and is very likely of polyphyletic origin. Further research is likely to divide it with some parts becoming independent genera and others merging with genera at present considered distinct."

For this reason, some have called *Aechmea* the "trashcan genus" – I don't know who gave it this lovely moniker. Elton Leme, when describing a new *Quesnelia*, stated "[a]s all exquisite bromelioides, this new species could easily be a victim of the almost irresistible "*Aechmea* attraction effect" due to the precarious delimitation of *Aechmea* and its paraphyletic composition of a high number of taxa." J. B. S. 55(1): 15-20. 2005.

DNA Studies. Most recent DNA studies covering the Bromelioideae subfamily confirm what has long been suspected about *Aechmea* – this genus is a complete mess from a taxonomic standpoint. For example, a 2015 DNA study found that *Aechmea* showed up in at least 12 different groups throughout the subfamily, often with species of other genera mixed in. If the results of that study are completely correct, and the authors decided to keep every current *Aechmea* species in that genus, it would be necessary to merge all of the following genera into *Aechmea*: *Billbergia*, *Neoregelia*, *Nidularium*, *Quesnelia*, *Hohenbergia*, *Portea*, *Canistrum*, *Canistropsis*, *Edmuntoa*, *Wittrockia*, *Lymania* and a few more. But because there are so many *Aechmea*, and the studies don't always agree, no one has even attempted to do a wholesale revision of the genus.

Recent Changes. However, there have been two studies that account for the recent decline in the number of species. Over 20 former *Aechmea* species were moved into *Ronnbergia* or the resurrected *Wittmackia* genus.



Ronnbergia (prev. Aechmea) involucrata. 41 BSI 200 (1991) Photo by Wally Berg

For those interested in more details about *Ronnbergia* and *Wittmackia*, see the July and August, 2017 Newsletters.

The other recent change, and the subject of this Newsletter, involves *Aechmea* subg. *Chevaliera*, the species of which are rarely seen in southern California. The October 2016 Newsletter had this to say about that genus:

“Chevaliera. These articles have addressed petal appendages more than once. Their presence or absence have been used to distinguish genera in a number of cases, such as *Vriesea* and *Tillandsia*, and their importance has greatly diminished.

While seven of the subgenera have petal appendages, *Chevaliera* have “rudimentary or reduced” appendages. They also usually have simple strobiliform (cone like) head, as well as conspicuous floral bracts. Baker’s description was almost the same, although he didn’t address the petal appendages.

This group consists of about 20 species, and I don’t remember hearing of any of them, let alone seeing one of them! Perhaps some of them are in cultivation – I don’t know. When I looked in Derek’s files, the first three I searched for didn’t have photographs, only old botanical drawings. This suggests they aren’t very common.”

The brief information above turned out to be generally accurate, though it appears there were a few more species in the subgenus when I wrote the article. I haven’t found a source yet that lists the number of subgenera – it is hard enough to keep track to the number of species in a genus. Since the earlier Newsletter, I have also “almost” seen two species in the subgenus.

In case you are wondering about a strobiliform head, quite a few *Aechmea* have them. One of the more well-known, which has been shown at club meetings, is *A. bromelifolia*, shown at the end of this article. They certainly look quite different than the more typical branched inflorescences of most *Aechmea*. For those interested in more about the many kinds *Aechmea* inflorescences, see the May and June 2014 Newsletters.



Aechmea sphaerocephala photo by Matthias Asmuss
Shown by Jose Abalo, winner at the SVCN 2006 exhibition in Venezuela

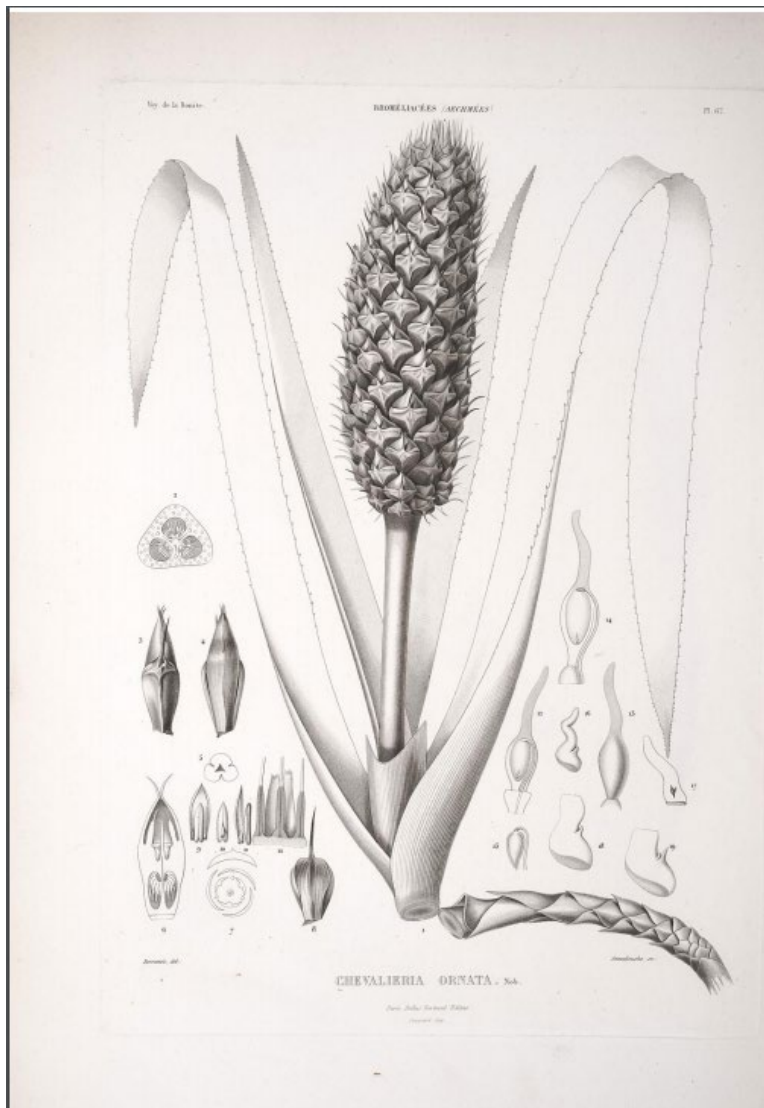
Here is the type plant, *A. sphaerocephala*, of subgenus *Chevaliera* first published in 1843. It certainly matches well, as you can see the strobiliform inflorescence, and the fact it has reasonably large green floral bracts all over the top of the cone. The orange-red leaf-like structures are peduncle bracts. You can probably also tell it is a fairly big plant, which is typical of the subgenus.

More on *Chevaliera*. *Chevaliera* was first legitimately published as a genus by the German botanist J. G. Beer. Beer wrote one of the first bromeliad monographs, was published in 1856; it had about 230 taxa. Charles Gaudichaud-Beaupré had used the name *Chevaliera* in 1843 when he illustrated two species, both shown below. However, that name was illegitimate since there was no description of the genus.



***Chevaliera sphaerocephala* (now *Aechmea* subg. *Chevaliera sphaerocephala*).**
Gaudichaud, Atl. Voy. Bonite p. 61, 1843. Image from the Biodiversity Heritage Library.
Digitized by Missouri Botanical Gardens, Peter Raven Library (www.biodiversitylibrary.org)

According to Wikipedia, Gaudichaud named about 107 taxa, including the genus *Quesnelia* which was found on the same voyage as the two *Cheveliaria* species. Interestingly, there was no description of *Quesnelia* either. However, the botanical rules do not require a description for a genus if only one species is published (as was the case for *Quesnelia*, published along with *Q. rufa*). In contrast, a description of some sort is required to validly publish a genus if more than one species name is published as was the case for *Chevaliera*. Because no description is required for species published at that time if the species was illustrated, Gaudichaud successfully published *Chevalieria ornata* and *sphaerocephala*, but not *Chevalieria*!



Chevalieria ornata (now *Aechmea* subg. *Chevaliera ornata*).

Gaudichaud, *Atl. Voy. Bonite*, p. 62, 1843.

Image from the Biodiversity Heritage Library.

Digitized by Missouri Botanical Gardens, Peter Raven Library. (www.biodiversitylibrary.org)

In case you are wondering, the genus was named after François Fulgis Chevallier, a French botanist who did his doctorate on the poison and drug hemlock.

In his 1889 bromeliad handbook, J. G. Baker treated *Chevaliera* as a subgenus of *Aechmea*. Baker listed nine species, two of which are now considered synonyms of two others listed. By the time Smith and Downs published their massive treatise on bromeliads in the late 1970's, there were 21 species in the subgenus. A few listed by Baker were no longer included.

Based on the above two illustrations shown the prior two pages, it certainly would seem reasonable to treat *A. sphaerocephala* and *A. ornata* as belonging to the same subgenus. But there has been quite a bit of taxonomic confusion about *Aechmea ornata* (not to be confused with the very well-known *A. orlandiana*). Baker treated it as a member of a different subgenus, subg. *Pothuava*. Based on Baker's key, the main difference between the two subgenera is the shape of ovary. Smith and Downs also continued this treatment – as noted earlier, they distinguished subg. *Chevaliera* by its rudimentary or absent petal appendages. Next month's Newsletter will discuss *A. ornata* further.

It turns out that the HBG appears to have *A. ornata* in its Jungle Garden. Found along the main north-south path, it had been labelled *A. aquilega*. I had noticed it in 2014, but didn't see it bloom until 4 years later. When it finally bloomed, it clearly wasn't *A. aquilega*, but I didn't know what it was. After some research, I thought it might be in the *Chevaliera* subgenus, and with the help of Derek Butcher, we think it is probably *A. ornata*.



left and below,
Aechmea ornata? at
the Huntington Botanical
Gardens.
Photos by M. Wisnev.



However, other authors later treated *A. ornata* as part of subg. *Chevaliera*. Sousa, G.M., M. G. L. Wanderley, and M. Alves. 2009. Inflorescence architecture in Brazilian species of *Aechmea* subgenus *Chevaliera* (Bromeliaceae – Bromelioideae). Botanical Journal of the Linnean Society 158: 584–592. This article discussed 15 of the then 21 taxa in detail, and described the inflorescence of all of the species as follows:

“The scape is terminal, short or elongated, with imbricate bracts and variable coloration. The inflorescences are simple or compound with sessile flowers arranged polystichously. Each flower is subtended by a rigid floral bract. The fruit is a berry, typical of the subfamily Bromelioideae, and is dispersed by animals.” Id at 585.

However, the species showed three different types of inflorescence. Ten had a strobiliform type, consistent with the pictures above, but differed “in the type of indumenta, floral morphology and dimensions of the axis.” Id at 586. *Aechmea depressa* and *hostilis* and one unnamed new species (most likely later name *A. prasinata* in 2014), had a “capituliform” head, which is more like a truncated pine cone without the lower half. All 13 of these had a simple inflorescence, that is, there were no branches.

In contrast, two of them (*A. digitata* and *A. rodriguesiana*) had compound branches with spikes, sometimes referred to as digitate. *A. digitata* only has a few spikes, while *A. rodriguesiana* has many. The latter has an interesting taxonomic history. Eric Gouda stated “Although *A. rodriguesiana* was originally described in the genus *Gravisia* (= *Aechmea*), later it was wrongly placed in the subgenus *Chevaliera* by L.B. Smith (Smith & Downs 1979), likely because of the lack of petals in the known material and because it resembles *Aechmea digitata* L.B. Sm. & R. W. Read.” Selbyana 20(1) 2000. Despite this, many (including the later Sousa article) continued to treat *A. rodriguesiana* as a subg. *Chevaliera* member. Next month’s article will have another twist to its status.



***A rodriguesiana*,**

considered a subgenus *Chevaliera* member by some authors.

Photo by P. Bak 42(5) J. B. S. 215 (1992).

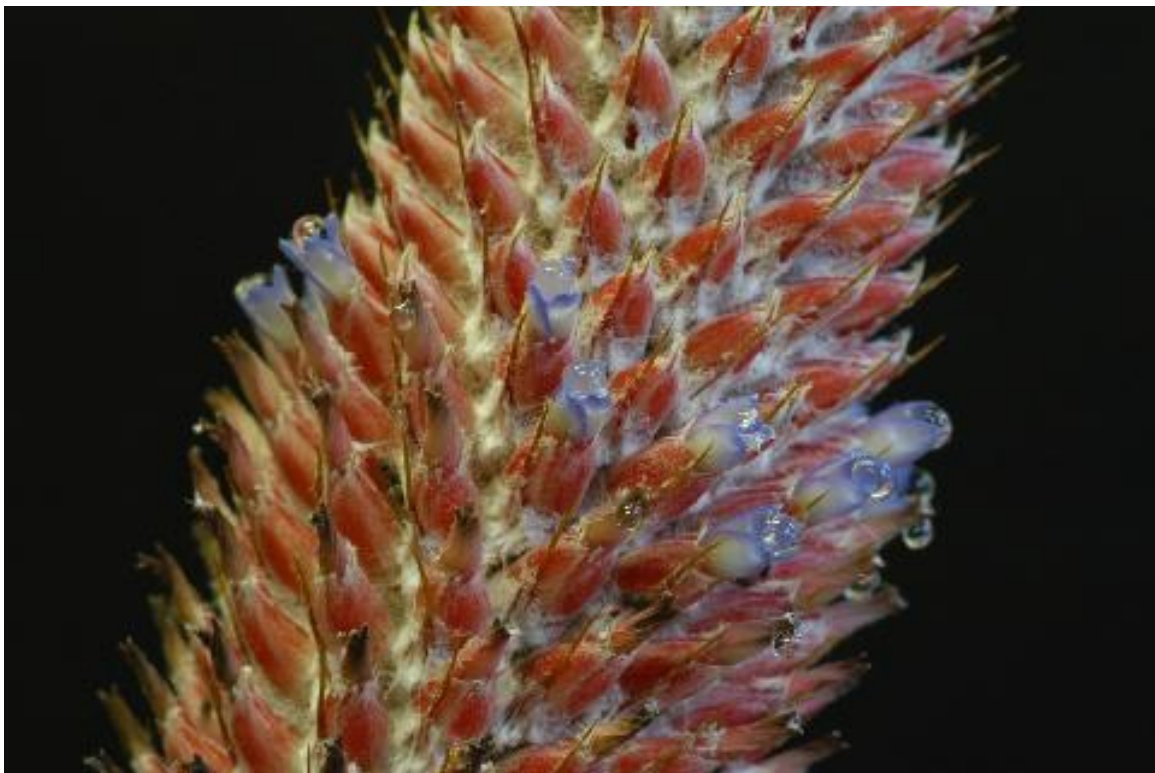
It looks pretty different from those shown above. Has anyone ever seen this species?

As noted above and in other Newsletters, botanists don't always agree with each other. As a fairly major example, Smith and Kress resurrected *Chevaliera* and the other *Aechmea* subgenera to genera in 1989, but few accept the change.

On a more modest level, the lists of subg. *Chevaliera* species in the article by Sousa, Wanderley and Alves included *A. ornata* and *A. alopecurus*, both of which are treated as subgenus *Pothuava* by Smith & Downs. The article doesn't address the reasons for the differences, although the answer may well be in Sousa's 2004 unpublished doctorate thesis. One possibility is the authors have different concepts of the subgenus; another is that more information has been discovered about the species in question that justifies the move.

Another point is that sometimes species in different genera or subgenera can look a lot alike. Sousa et al stated:

"Aechmea bromeliifolia (Rudge) Baker, of the subgenus *Macrochordium*, is easily recognized by the strobiliform spicate inflorescence, covered almost completely in a whitish lanate indument, similar to that found in *A. alopecurus* and *A. perforata*, which are analysed in this work. However, the floral bracts and flower colour are very distinct: the bracts are aristate in *A. alopecurus* and mucronate in *A. perforata*, both with lilac flowers. In *A. bromeliifolia*, the flowers are yellow to greenish and the floral bracts are truncate."
Id at 591.



Aechmea alopecurus, courtesy of Eric Gouda.
Treated as subg. *Pothuava* by some and subg. *Chevaliera* by others.

If *A. alopecurus* is a subg. *Pothuava* member, then three species in different subgenera can look very similar. However, an examination of various floral parts will probably reveal differences sufficient to place them in different subgenera, at least as they are currently circumscribed. Based on key in Smith & Downs, it is because *A. perforata* has no petal appendages, *A. bromelifolia* has petal appendages and unarmed sepals and *A. alopecurus* has petal appendages and mucronate sepals. Compare it to the inflorescences shown above, and that of *A. bromeliifolia* below.



Aechmea bromelifolia at the Huntington Botanical Gardens.
Member of subg. **Macrochordium**. Photo by M. Wisnev.

To be continued next month