



S.F.V.B.S. NEWSLETTER AUGUST 2016

SAN FERNANDO VALLEY BROMELIAD SOCIETY

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

sfvbromeliad.homestead.com

[sanfernandovalleybs@groups.facebook.com](https://www.facebook.com/sanfernandovalleybs/groups)

Elected OFFICERS & Volunteers

Pres: **Mike Wisnev** V.P.: **John Martinez** Secretary: **Leni Koska** Treasurer: **Mary Chan**
Membership: **Joyce Schumann** Advisors/Directors: **Steve Ball, Bryan Chan, Richard Kaz -fp, Mary K. Carroll**
Sunshine Chair: **Georgia Roiz**, Refreshments: **Gisela Miller**, Web: **Mike Wisnev**, FaceBook: **Roger Cohen**
Editors: **Mike Wisnev & Mary K.**, Snail Mail: **Nancy P-Hapke**

next meeting: **Sat. Aug 8, 2016 @ 10:00 am**

Sepulveda Garden Center (SGC) 16633 Magnolia Blvd. Encino, California 91316

AGENDA

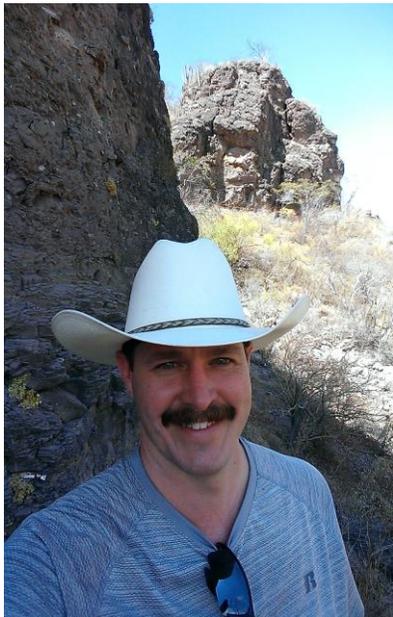
9:30 – SET UP & SOCIALIZE

10:00 - Door Prize – arrive before 10:00

10:05 - Welcome Visitors

10:15 - Introduce *Speaker*: Andy Siekkinen

***Program*: Tillandsias of Mexico: habitats and habits**



The most numerous and diverse group of bromeliads in Mexico are the Tillandsias. They occupy a wide range of habitats and climates and have many curious ways to survive in harsh conditions. This talk will look at some of these plants in the context of where they grow and how they are adapted to their unique circumstances. Elevation, rainfall, suitable substrates, orientation of exposure, all are important and

influence where a species can grow and what are its challenges. There is much to think about and learn from plants that are both rare and common, and some explanations why (both in cultivation and in habitat) they are either rare or common.

Andy has been traveling and studying the bromeliads (especially the Hechtia) of Mexico for nearly 7 years—including just finishing a trip to study the Hechtias of the Baja California Peninsula.

He has been doing his research at San Diego State University and will be starting a graduate degree in Botany at Rancho Santa Ana Botanic Garden /Claremont Graduate University. Within the next few weeks before college he will squeeze in a talk in Florida and another whirlwind trip back down to Baja California. He is currently working on the descriptions of over a dozen new species of Hechtia, Tillandsia, and Pitcairnia (with dozens more new species that he needs to wait for flowers in order to publish) and has been studying the evolutionary relationships using some of the newest genetic techniques.

11:15 - Refreshment Break - Will the following members please provide refreshments this month:

Colleen Baida, Mary k., Wesley Batera, Dave Bassani, Kaz Benadom 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 - For Show and Tell: please bring a plant

11:45 – Mini Auction: members contribute

12:00 – Raffle: We need each member to donate

12:15 - Pick Up around your area

12:30 – Meeting is over—Drive Safely <>

Extreme heat – Mist your Tillandsias frequently

To the right:

Tillandsia rhodocephala ASB78

photo by: Andy Siekkinen



Photo by: maryk

Billbergia (spectacular color)

'robert-readii' X euphemiae var. rubra

Very large plant, Leaves are about 30" tall and the pendent extends over 12"

Announcements

- **Happy August Birthday to:** *Bob Friedman Aug 5th – John Martinez Aug 16th – Steve Ball Aug 29th and Mary Chan*

Let Joyce know your DOB so we can say Happy Happy to you when the time comes.

- **Saturday & Sunday, August 6 & 7** - South Bay Bromeliad Society Sale [Directions to Show & Sale](#) at Rainforest Flora Inc., (RFI) 19121 Hawthorne Blvd. in Torrance. Directions from Sepulveda Garden Center: (approx. 25.5 miles & 30 min.) East on 101 Fwy. / South on 405 Fwy. towards Santa Monica / Exit # 42A at Hawthorne Blvd. It is a very good show and RFI is always worth seeing. Many of SFVBS members will go to that show after our meeting.
- **Saturday & Sunday, August 13 & 14** - 9am-5pm both days - Annual Intercity Show And Sale at the LA County Arboretum, Cactus & Succulents. 301 North Baldwin Ave., Arcadia, CA.
- **Saturday & Sunday August 20-21** - Open 9am – 3:00pm Saturday and 10:00 -3:00 pm Sunday **Gregg DeChirico** is holding his close-out Bromeliad and Succulent Plant Sale. The location is Island View Nursery, 3376 Foothill Rd., Carpinteria CA 93013. If you haven't been there before, Enter thru the huge Nursery in the front, exit the rear and turn right. Gregg's nursery is one of many located in the rear. After the sale he will also be open by appointment for a few weeks. As they say "everything must go!" For additional information contact Gregg at u4banut@yahoo.com,
- **Saturday August 20** - 11am - 3pm - **Donna Marie Baker** is having a one day sale of Bill Baker's Plants. Bromeliads and Succulents. The address is 18552 Erwin Street, Reseda, CA 91335. For additional info 1-818-344-4856
- [Bromeliad Bus Trip – see page 19 & 20 for reservation details](#)
- **Mosquitoes** – At 80 degrees water becomes stagnant in about 4 days. Stagnant water means Mosquitos breeding. They live in the same tropical environments as the outdoor growth of bromeliads and die odd when temperatures drop below 50. Flush bromeliads or add fresh water every 3 or 4 days.
WOW !! – Is it really time to think about the [December Holiday Party ?](#) I remember when I first joined the club in the mid 90s, the pot luck was very simple but it served the purpose without any fan-fare. This is not rocket science; the club will provide the basic supplies, meats and beverages. The main thing the coordinator does is to make suggestions and keep track of who is bringing what pot luck dish so that we don't end up with a dozen cakes and cream pies. The members determine if they want decorations, there are several people willing to help. Keep it simple. **Think about it.** Bryan will order the holiday gift plants.
- **Attendance Book** – Two good reasons to sign in.... 1. Attendance is very important for a small club like ours to remain viable. 2. That's how you are noted for Participation Rewards.
- [Ramblings about Better Growing](#) The editor is looking for information from other members for this column. I'm sure some of you have some growing tips to share about what to do or what not to do; it can be 1 or 2 sentences or 3 or 4 paragraphs. Member contributions are vital to keep the newsletter interesting and our SFVBS thriving. Submit a bromeliad photo of a plant in your collection. I'm sure some of you have some growing tips to share about what to do or what not to do; it can be 1 or 2 sentences or 3 or 4 paragraphs <>

CALENDAR

Saturday Sept 3, 2016	Speaker – <i>Steve Freize</i>
Saturday Oct 1, 2016	Speaker – <i>Guillermo Rivera</i>
Saturday Nov 5, 2016	Speaker – <i>Woody Minnich</i>
Saturday Dec 3, 2016	<i>Holiday Party</i>
Saturday Jan 7, 2017	First Meeting of the New Year - STBA

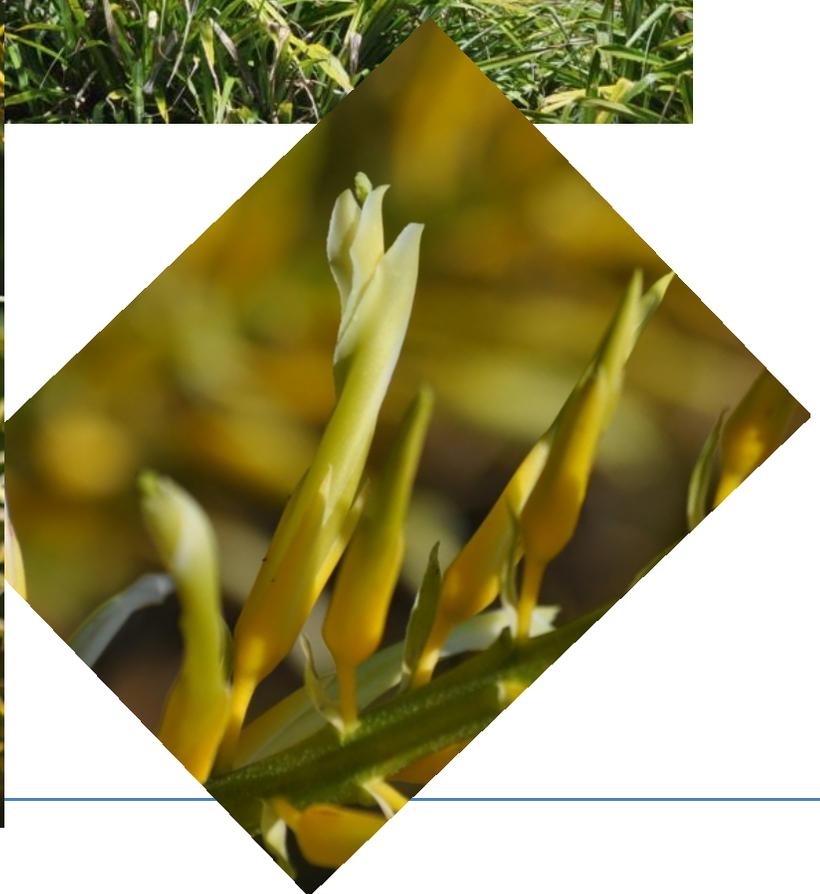
STBA = Speaker To Be Announced Speakers - Let us know if you have any ideas for Speakers about Bromeliads or any similar topics? We are always looking for an interesting speaker. If you hear of someone, please notify John Martinez

johnwm6425@gmail.com

Really?! - What is a bromeliad?

Having finished a couple articles on that topic recently, I was surprised to find this in the Jungle Garden. I probably have walked by it at least 20 times, without giving it a glance. But then it bloomed in June, and it is a bromeliad – *Pitcairnia xanthocarpa*!

That is *Puya coerulea* on the left.



Taxonomic Tidbits – *Aechmea*, its subgenera and history - how does taxonomy work? – Part 2 -

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

San Fernando Valley Bromeliad Society Newsletter –August 2016

Repeated from last month, here is the beginning of the description of *Aechmea* from the Smith and Downs Monograph.

“*Aechmea* Ruiz & Pavon, Fl. Peruv. Prodr. 47. 1793; nomen conservandum.

Hoiriri Adanson, Fam. 2: 67, 584. 1763. (Type. *Bromelia nudicaulis* Linnaeus.)

Oechmea J. St. Hilaire, Exp. Fam. 1: 103. 1805; orthographic variant of *Aechmea*.

Aechmaea Brongniart, Ann. Sci. Nat. Bot. II. 15: 371. 1841; orthographic variant of *Aechmea*.

Chevalieria Gaudichaud, Ad. Voy. Bonite pl. 61, 62. 1843; nomen illegitimum.

Pothuava Gaudichaud, Ad. Voy. Bonite pl. 116, 117. 1852; nomen illegitimum.

Macrochordion De Vriese, Jaarb. Nederl. Maatsch. Tuinb. for 1853: 14. 1853. (Type. *Bromelia tinctoria* Martius.)

Hoplphytum Beer, Flora 37: 348. 1854. (Type. *Billbergia rhodocyanea* Lemaire).

Echinostachys Brongniart ex Planchon, Hort. Donat. 25. 1854-58, non Brongniart 1828; nomen illegitimum. (Type. *E. pineliana* Brongniart.)

Lamprococcus Beer, Bromel. 21, 103. 1856. (Lectotype. *Aechmea fulgens* Brongniart.) *Macrochordium*

Beer, Bromel. 22, 145. 1856; orthographic variant of *Macrochordion*. *Chevaliera* Gaudichaud ex Beer, Bromel. 22, 257. 1856. (Type. *C. sphaerocephala*

Gaudichaud, Ad. Voy. Bonite pl. 61. 1843.)

Ortgiesia Regel, Gartenflora 16: 193, pl. 547. 1867. (Type. *O. tillandsioides* Regel.) *Wittmackia* Mez, Mart.

Fl. Bras. 3(3): 179, 274. 1891. (Type. *Bromelia lingulata* Linnaeus.)

Gravisia Mez, Mart. Fl. Bras. 3(3): 179. 1891; 299. 1892. (Type. *Bromelia exsudans*

Loddiges.)” [Emphasis in red added].

Early Genera later combined into *Aechmea*. There are lots of strange names, such as *Chevalieria*, *Pothuava*, *Macrochordion*, *Lamprococcus* and *Ortgiesia*. I listed the five above in particular, since they are now names for five of the eight *Aechmea* subgenera. They were described from 1843-67 by Gaudichaud, Beer or Regel. Each of these, and others in italics, is a genus described earlier that has now been referred to *Aechmea*.

Given all that one can find on the internet, I suspect these publications are available online somewhere. I did find the Beer publication, but it is in German. I didn't look for

the others publications since they are probably in French or German - they may be available on the web, or perhaps at the Huntington.

Below is *A orlandiana*. It is in subgenus *Aechmea*. It is one of my favorite species, along with its many cultivars.



So I don't know what caused these individuals to describe these new genera, or how they got these names. However, based on later descriptions of the respective subgenera, one can make an educated guess, although it is possible that later botanists focused on different features than described in the original descriptions.

Bromeliad Monographs. Some of these genera were first described by J. G. Beer. Beer was the Director of the Berlin Botanical Garden and wrote the first bromeliad monograph in 1856. Called *Die Familie der Bromeliaceen*, it describes about 275 species and is 271 pages long. It is actually on the web, but is in German.

<http://www.biodiversitylibrary.org/item/52630#page/15/mode/1up>.

I also found what seems to be the second monograph on Bromeliads, which is in English, and lists most of the current *Aechmea* subgenera. John Gilbert Baker at the Kew Gardens wrote the Handbook of the Bromeliaceae – it was published in 1889. Only 243 pages long, it describes 31 genera and about 800 species, more than double of the estimated species only six years earlier. In the preface, Baker correctly said “No doubt this is far short of the number that will ultimately be found.” Baker was a prolific author - he also wrote at least four other handbooks for plant families – those named after irises, amaryllis, ferns and lilies.

Another major monograph of Bromeliads was started around the same time by Dr Carl Mez, a German botanist. Apparently, numerous editions were published between 1891 and 1935. His first complete one, in 1896, listed 45 genera, and was a mere 990 pages. <http://babel.hathitrust.org/cgi/pt?id=hvd.32044106471550;view=1up;seq=101> His final one, in 1935 with 49 genera, was much shorter, only 667 pages, but it has much smaller print. <http://bibdigital.rjb.csic.es/ing/Libro.php?Libro=592> But both are in Latin! So, I won't be discussing his work except to the extent other papers address them.

It seems Mez's works have been much more accepted than Baker's. The sheer length of it reveals it has a lot more information than Baker's. I have seen lots of papers mentioning Mez, yet until doing this article don't recall Baker. Smith and Down's Monograph is quite revealing here. The list of literature cited in the Introduction doesn't mention Baker's Handbook or Beer's 1856 monograph. However, the very first three sentences of the Introduction to the S&D Monograph state:

“Carl Mez monographed the Bromeliaceae twice in full (1896, 1934-35)... He brought order out of near taxonomic chaos and his system was basically so sound that the changes embodied here are largely quantitative. Even the few changes that I have made to in his system are largely due to the flood of material that was unavailable or subsequent to him.”

Below is *A seideliana*. While its leaves look nothing those of *A orlandiana*, pictured above, the form of its inflorescence seems quite similar. Is it in the same subgenus? No, it belongs in subg. *Orgiesia*, which is known for its connate sepals.



Of course, Smith and Downs is the most recent Monograph, mentioned in virtually every Taxonomic Tidbits article in our Newsletter. This three volume Monograph was published from 1974 -79 and consists of a 64 page introduction followed by roughly 2300 pages botanical descriptions of genera and species with virtually no narrative.

Combining earlier genera. Before continuing with the subgenera descriptions, used as a proxy to guesstimate why the original genera were created, it is worth focusing on a more important feature of Baker's Handbook. Specifically, he combined these earlier other genera into *Aechmea*. What caused him to do this?

Baker had in fact combined these genera into *Aechmea* in 1879 when he published "A Synopsis of the Genus *Aechmea*, R.&P."¹ But he didn't provide much information in this Synopsis, and had even less in his Handbook a decade later.

¹ See Journal Botany, British and Foreign. Vol VIII. Note he did use the term *Aechmea* – the A and E were actually one connected letter.

<https://books.google.com/books?id=ufwWAAAAYAAJ&pg=PA166&lpg=PA166&dq=synopsis+of+the+genus+Aechmea,+Brown&source=bl&ots=iYClSh16nR&sig=f0I49hiN2L9wNU55w-yXIMyv47Q&hl=en&sa=X&ved=0CB0Q6AEwAGoVChMI3K3C-ID-yAIVF-NjCh2yygpn#v=onepage&q=synopsis%20of%20the%20genus%20Aechmea%2C%20Brown&f=false>

His long one paragraph introduction to the Synopsis was instructive as to the state of Bromeliads in 1879. He says”

“Although Bromeliaceae are so much cultivated, there is no order of Endogens that has been so much neglected.[A] great many ... have never been named or described. There is no recent synopsis of the genera, and a considerable number have been founded of late years in the horticultural journals and elsewhere upon one or two species alone. [I]t became a question for consideration ... which genera should be adopted. [D]oubts on this head had regard mainly to the limits to be assigned to the genus *Aechmea* ... I have thought it best to define the genus in the sense in which I have understood it in the Kew catalogue, and at the same time to attempt a classification and synoptical description of the species that range under it... A good many of these are now described for the first time from specimens in the London herbaria. ... The species mount up to nearly sixty... There are several others species known by garden names, but these remain to be verified as to genus, and described by some competent botanist who gets an opportunity of seeing them in a flowering state.” Id. At 129.

Below is a plant at the HBG identified as *A dealbata*. Again, its inflorescence shape is similar to *A orlandiana* and *seideliana* shown above. Those two belong to different subgenera. Which do you think this is?



Nope, it is yet a third one, subgenus *Platyaechmea*, known for its floral bracts that form pouches around the flowers.

Baker then had a long 2 paragraph botanical description of *Aechmea* which concludes that the genus is distinguished from similar genera in the Ananasseae group (other than *Billbergia*) by “its free petals, conspicuously spirally-twisted stigmas and sessile leaves.” They differ from *Billbergia* by having much smaller flowers, flower parts and different flower bracts.

He concluded by saying “To *Aechmea*, as thus understood, the following genera, which have been proposed, belong:” *Hohenbergia*, *Pothuava*, *Pironneava*, *Chevalliera*, *Hoplophytum*, *Echinostachys*, *Ortgiesia* and *Canistrum*. I was certainly surprised to see he lumped *Hohenbergia* and *Canistrum* into *Aechmea*; others haven’t followed this approach and these two remain valid genera today.

The key in Baker’s Handbook distinguishes *Aechmea* in a similar fashion – they have free petals that were not usually longer than the sepals, free or nearly free sepals that are generally mucronate, and long twisted stigmas.

Basic Taxonomy. There are two basic taxonomic inquiries. First what plants should be grouped together? Second, what rank do you give each group?

The first question is the more important, at least in my view. As applied to *Aechmea*, the first question is whether botanists before Baker recognized that these other genera were related. It appears they didn’t. In that case, Baker’s combination into *Aechmea* was a real achievement (or disaster, depending on your point of view!)

The second question is even more subjective. Let’s assume that botanists agreed that the five genera that Baker combined were closely related. In that case, it really doesn’t make much difference whether you say there is a group or complex of five closely related genera, or there is a genus with five subgenera. The information conveyed is essentially the same – there is a large group of related plants that can be broken into five smaller groups. What you call each group arguably doesn’t matter, though undoubtedly some would disagree.

Below is yet another Bromeliad with a similar inflorescence to those above. Yet another subgenera?



This is *Quesnelia arvensis*! Of course, there has been some confusion here, you might gather from an article entitled *Quesnelia marmorata* – “The correct name for a well-known *Aechmea*.” Robert Read, 15(2) Bromeliad Society Bulletin p23 (1965). According to that article, the floral bracts of *Quesnelia* and *Billbergia* are never pungent, while those of *Aechmea* are. Pungent means the bracts have a hard sharp point at the end. Also *Aechmea* sepals are pungent while those of *Quesnelia* (and *Billbergia*) are generally unarmed. It is actually a bit more complicated here. Sepals of *Aechmea* are mucronate or pungent (or blunt and small), while those of *Quesnelia* are unarmed or soft-apiculate.

Next month – more on the subgenera.

Taxonomic Tidbits – *Yellow/green petalled* *Billbergia* - Part 7 (*B chlorantha*, *viridiflora*, *laxiflora*, *castelensis*, *decipiens* and *tweedieana*?)

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

San Fernando Valley Bromeliad Society Newsletter – August 2016

Part 1 noted that the title of this series should really be *Billbergia* with partially yellow/green, partially blue petals. So far, every species shown has some blue in the petals, though there have been two varieties with all green petals (*amoena* v *viridis*, and *distachia* v *straussiana*). But there are in fact species with yellow to green petals without any blue in them. Since I haven't seen any of these species, I won't spend much time on them.



B chlorantha is in a group of *Billbergia* with lepidote compound inflorescences with sessile flowers and relatively short floral bracts. It has nice imbricate and lepidote peduncle bracts and “greenish white” petals that look more yellowish in some pictures. Smith said its inflorescence is like that of *B sanderiana*, but it has minute floral bracts and wholly green petals, as well as very unusual ovules and carpels.

B. chlorantha.

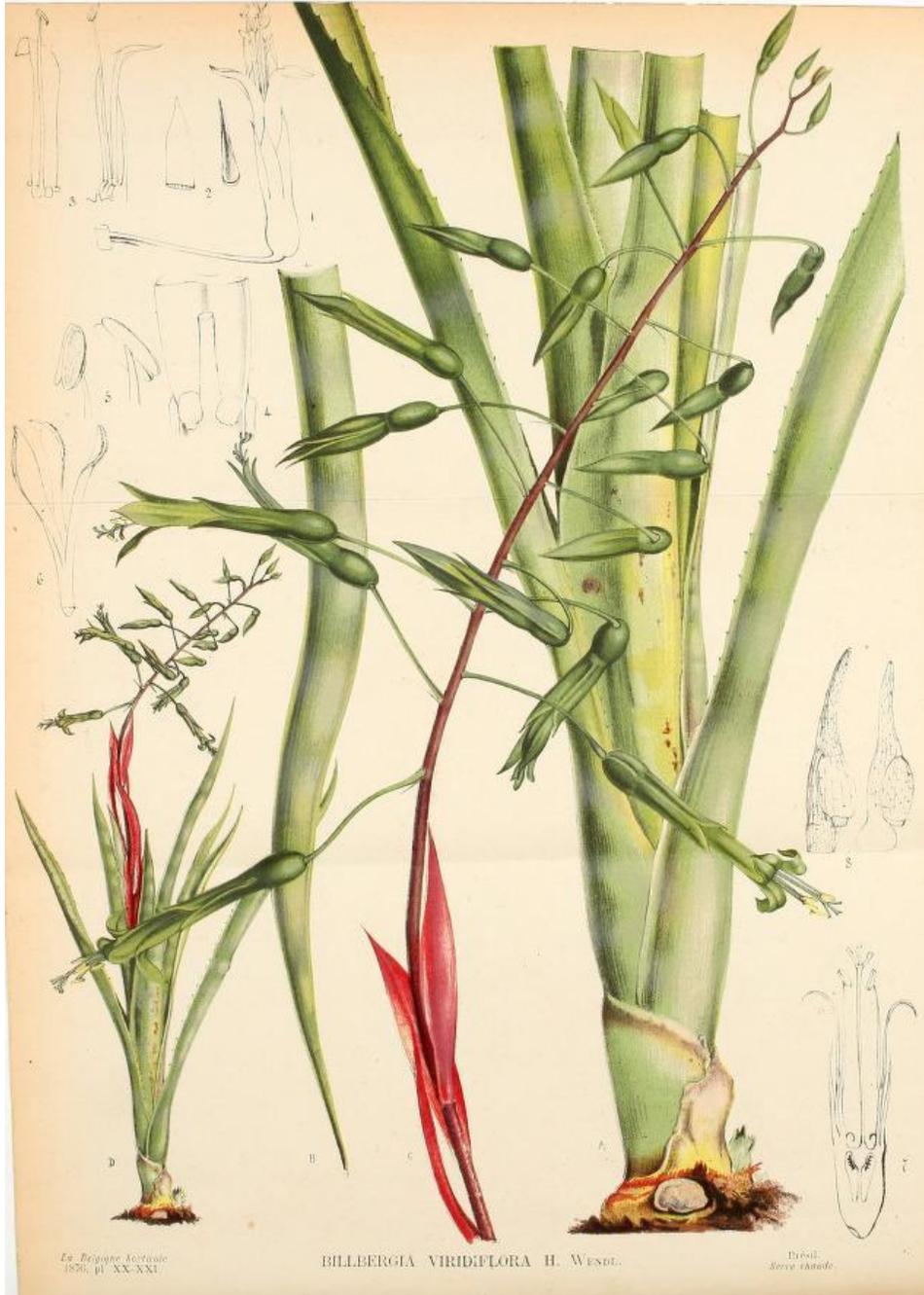
Photo by Ken Woods.

B viridiflora is rather different than most *Billbergia* in various respects. First, its flowers are on long pedicels, up to 5 cm. Second, while most *Billbergia* are found in Brazil, this one is found in southern Mexico, Belize and Guatemala.



B. viridiflora. Photo by D. Butcher.

It also has all green petals, and can have a very long inflorescence as revealed by the 1876 illustration of *B viridiflora* in Belgique Hort. on the next page. The combination of the simple inflorescence and long pedicellate flowers makes it quite unusual, though perhaps not the prettiest species.



B. viridiflora. Illustration in *Belgique Horticole* 26: 324 (1876).

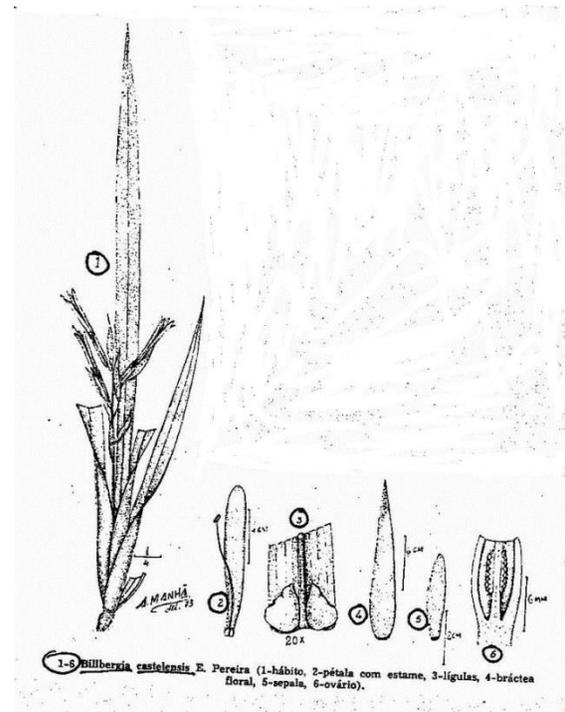
Image from the Biodiversity Heritage Library. Digitized by Harvard University Botanical Libraries. www.biodiversitylibrary.org.

From the perspective of the key, *B laxiflora* falls within the same group as *B chlorantha*. But it differs considerably. It is described as having green linear petals, red margined sepals and a densely lepidote ovary. Unlike most *Billbergia*, its peduncle bracts are fairly unimpressive.



B laxiflora, photo by Baensch.

B castelensis, right. Pereira, Bradea 1: 384-5, 389. 1974. Found in Espírito Santo, Pereria described it as having has pale yellowish petals, and sepals becoming white. He said it is closest to *B amoena* and *B nana*, distinguishing it based on its linear leaf blades and flowers, and the long floral bracts.



B decipiens is a real can of worms. Some treat it as a species, while others, like Smith, treat it as a synonym of *B tweedieana* or a variety thereof. Apparently, it has green petals and green symmetric sepals, which distinguish it from *B tweedieana* with green asymmetric sepals and petals that are blue at the top and green at the base. However, both pictures of *B tweedieana* on FCBS seem to have all green petals. Both taxa have extremely long leaves, over 3 ft.

One might think *B tweedieana* would look a bit different than a lot of others, since it has a subcorymbose inflorescence (as opposed to one longer than broad) and unlike the ones above, has large scape bracts. However, an illustration by Mulford Foster shows a fairly similar inflorescence, as indicated by the one on the right below (the left being *Quesnelia blanda*).



"*Billbergia tweediana*" *Botanical Drawings*. Image 43.

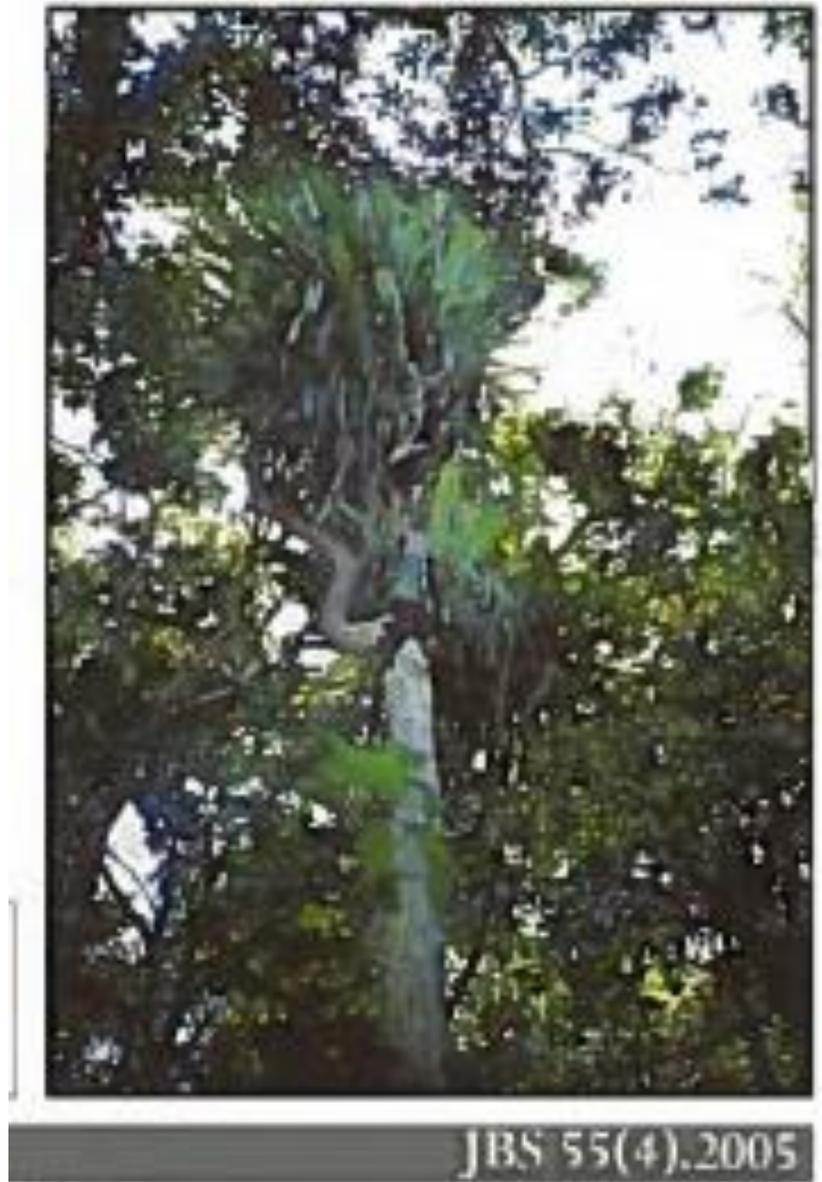
<http://stars.library.ucf.edu/fosterbotanical/43>

This species also has some mysteries. Described by Baker in 1889, it apparently can grow to 6 feet long! This would be quite a sight, if true. Like others above, Smith notes the petals “pale blue above the sepals and pale green below,” consistent with Foster’s illustration below and two other

later descriptions by Adda Abendtroth and Talita Fontoura. However, the description in Barros & Costa, for State of Rio de Janeiro, *Acta bot. bras.* 22(4) says the petals are white and the only pictures I can find of the species (on FCBS) show pale green to whitish green petals. So I don’t really have any idea what color the petals are! Smith described the sepals as green, while those in the illustration seem blue tipped.

Three varieties have been described, primarily based on the relatively unimportant length of the sepals and whether they are acute or rounded. The key says variety *minor* is a small plant with the longest (and acute) sepals (24mm), yet Foster says the leaves are 4 ft (which in fairness is fact small compared to 2 meters).

Talita Fontoura decided sepal length was variable and reduced var. *minor* to synonymy with var. *tweedieana*, yet ignored var *latisepala*. Selbyana 15(2): 79-81. 1994. That variety actually seems shorter than the others, and has the smallest sepals (13mm). Some also think *B decipiens*, apparently with all green petals, is the same as var. *latisepala*. Interestingly, Edward McWilliams a horticultural botanist at the University of Michigan said *B tweedieana* was “presently cultivated to a moderate extent” in 1968. See JBS 18(1) (1968). This is surprising since Abendroth said a few years later that “it has nothing to please the eye.” See JBS 22(2) (1972). Other than the picture below in JBS and those on FCBS, there seem to be no pictures of it.



Finally, to be complete ,the description of *B kautskyana* says it has whitish petals, though they appear more yellow-green or light green to me. I'll cover this species later.

NOTE TO the San Fernando Valley Bromeliad Society
If you are a member of SBBA or LBVBS, contact Ted Johnson or Denise Pidd to make your reservation (only if you are a member of that club)

This is an annual Bromeliad Bus Trip
Sponsorship rotates between
South Bay Bromeliad Associates and
LaBallona Valley Bromeliad Society

SFVBS members contact Mary K 818-705-4728 or rango676@aol.com

SFVBS members will be placed on a waiting list.

You will need to contact Mary K. and pay the \$16.00 up front. You can pay at our SFVBS August 6 meeting or mail it to me. We will hold the money until you have confirmation of a seat. **Checks will be made out to SBBA.** People who are on the SFVBS waiting list, your status will be confirmed on **Monday September 5**. We will need to turn over our money right then for the number seats, I won't be able to contact everyone at the last minute. If there is no seat available for you, your money will be refunded in full. The waiting list will be on a first come basis. At anytime before or after September 5 you can choose to remain on the wait list or have your name removed.

People going on the bus trip should give me your cell phone # and you will have mine in case there is a delay on the morning of. I will also ask from which of the three locations you plan to load. The last location at Balboa Park is only a few blocks from our monthly meeting place.

\$16.00 is a real bargain. The actual cost per person is supplemented by the So. Bay group. These trips are fun; if you think you are interested get on my waiting list early.

Thanks,
marykcarroll

818-705-4728
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