



**S.F.V.B.S.**

**SAN FERNANDO VALLEY BROMELIAD SOCIETY**

**NOVEMBER 2020**

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### **Elected OFFICERS & Volunteers**

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

Refreshments: **Steffanie Delgado**, Web **Mike Wisnev**, Editor: **Mike Wisnev & Felipe Delgado**, Snail Mail:

**Nancy P-Hapke**, Instagram, Twitter & Facebook: **Felipe Delgado**

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**Saturday, November 7, 2020 ZOOM Meeting at NOON**

<https://tinyurl.com/SFVBS>

**We will have our third ZOOM meeting, and for the first time will have a speaker presentation. Please join us: Woody Minnich is a great speaker.**

### **Presentation - Bromeliads of the Americas by Wendell S. (Woody) Minnich**

The bromeliads are a fantastic group of many genera. My focus over the last 50 years has been to study and try and understand the cacti and other succulents. These studies have included going to the wild places throughout most all of the Americas, north and south. During these observations of the succulent plants, it is amazing just how many bromeliads are growing side by side with the cacti and other succulents. I must admit, I have often been overtaken with their beauty, sometimes to the extent that I forget to focus on the cacti I was originally looking for.

In this presentation I will try and show you many of the species I have encountered in the wild regions of many north and south American countries. We will travel in the United States, Mexico, Columbia, Venezuela, Ecuador, Peru, Bolivia, Chile, Argentina, and Brazil. We will see: the epiphytic tree and cactus dwellers, the cliff and rock growers and the geophytic sand and soil inhabitants. I will share some of my observations as to their general cultivation, light and moisture needs.

I wish I could say I am an expert on the bromeliads, but am not! Actually, I appreciate them all and my studies have often been really embellished by the addition of these wonderful and beautiful plants. Many of the Broms are so interesting and colorful, thus I often don't care what their scientific names are, I just like them. Much of my education regarding these popular plants has come from David Cathcart, Brian Chan, Paul Isley, Tom Knapik, Mike Wisnev and many of the members of the southern California Brom societies. Come join me in the natural habitats where our bromeliads grow.

Woody, as he is commonly known, grew up in the Mojave Desert and has had an attraction to desert plants and animals since the early 1950's. He has been involved with the cactus and succulent world as a grower, field explorer, club and organization leader, writer, photographer, lecturer and presenter.

Having been a speaker all over the world, Woody is most often associated with giving presentations on his field work from the places he has traveled, such as: Argentina, Australia, Bolivia, Brazil, Chile, Madagascar, Mexico, Namibia, New Zealand, Peru, Socotra, South Africa, the United

States and Yemen. He is also recognized for having operated the nursery Cactus Data Plants since 1975. Woody's show quality plants were often considered one of the standards for staging and horticultural achievement. His favorite genera include: Adenium, Ariocarpus, Astrophytum, Copiapoa, Cyphostemma, Fouquieria, Gymnocalycium, Lithops, Mammillaria, Melocactus, Pachypodium, Turbinicarpus, Uebelmannia, and Pachycauls in general.

He has published numerous articles and reviews in various journals (CSSA) and his photography is featured in many books including; "The Copiapoa" by Schulz, "The Mammillaria Handbook" by Pilbeam, "The Cactus Lexicon" By Hunt and Charles, as well as many others. As of November 2017, he is featured as the primary photographer in the new, sold out book "The Xerophile." This book specializes in what the authors call, The Obsessed Field workers from around the world. He is also featured in electronic articles about conservation from "MNN Mother Nature Network" and "The Guardian Newspaper."

Woody and his wife, Kathy, live in Cedar Grove, New Mexico. He is a retired secondary school teacher of 32 years where he taught Graphics, Art and Architecture. In the cactus and succulent hobby, Woody is recognized for his high energy and creative spirit. As an educator, he has become an important part of the hobby and thus is an honorary life member of twelve C&S societies. With 51 years in the hobby and 64 years in the field (old fart), he has many experiences to share and numerous photos to show.

### President's message

I hope that our club members are doing well through these trying times. I have one announcement to make. The 2020 membership dues will be continued into 2021. Our club operational costs have been minimal and there has been no reason to consider collecting membership dues for the upcoming 2021 year.

Warm weather is still with us so keep up on watering your plants although, slow down on fertilizing so that you do not create a lot of soft new growth as we start to go into the winter months. As the weather cools many of the plants we grow can be given more light to increase or hold their color.

## 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. **As noted earlier, future meetings may be cancelled.**

Saturday November 7	Woody Minnich
Saturday December 5	STBA
Saturday January 2	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 **Joyce Schumann** at 818-416-5585 or [ropojo@pacbell.net](mailto:ropojo@pacbell.net)

## *Member-contributions of photos or articles*

Woody Minnich, our speaker for this month, has graciously shared some photographs of bromeliads he has seen. All three photographs courtesy of Woody, and taken in habitat.



*Puya* species, Bolivia





Above - *Hechtia* species, with *Echinocereus dasycanthus*, Mexico.  
[Editor's note- mostly like *Hechtia texensis* (or *glomerata*).]

Below - *Puya* species, Bolivia.

[Editor's note- mostly like *Puya prosanae*; other possibilities are *P. tunarensis* and *humilis*.]





# Taxonomic Tidbits: *Disteganthus*: a case study in changing names.

Mike Wisnev, SFVBS Editor

([mwisnev@gmail.com](mailto:mwisnev@gmail.com)) San Fernando Valley Bromeliad Society Newsletter – November 2020

Believe it or not, it appears there are no *Disteganthus* hybrids or cultivars. This may be one of the few bromeliad genera that can make such a claim. Since there are only four species, and two of these were described in 2015, the likelihood of someone making a hybrid is pretty small.

The real question is whether any of you have heard of the genus, let alone seen one. I am pretty sure I have never seen one, and only have heard about by virtue of doing these articles. The genus is fairly unusual for Bromelioideae since all of its species have lateral inflorescences.



*Disteganthus basi-lateralis*. Lemaire, Fl. Serres 3: pl. 227. 1847.

This is the first illustration of a *Disteganthus* species, published when the genus was first described in 1847. The illustration shows a plant brought from French Guiana to Paris and described by Charles Lemaire. If the actual plants looked this magnificent when in flower, I imagine it would be a lot more popular, even though it may well be very hard to grow in our climate.

That leads to another question: is why I am doing an article about this genus? One reason is a desire to do an article about every bromeliad genus, and this is actually one of the few that

haven't been the subject of at least part of a newsletter (although pictures of *Disteganthus* species have appeared in two Newsletters!) Since the genus appears to be rather closely related to *Ananas*, which have been the subject of the most of the recent newsletters, it seemed like a good time to write it up. Finally, it shows how new research reveals plant characteristics that result in changes in genera or species.



W.J. Kress



W.J. Kress

Fig. 1 and 2  
*Disteganthus basi-lateralis* in French Guiana habitat. This species grows in large colonies as a terrestrial in dense, wet forests. Note in the lower photograph the depth of the base and the presence of two offsets on stolons.

## *D. basi-*

*lateralis*. Photos by Dr. Kress. J. Brom. Soc. 40(3) at 100. 1990.

These don't look like any bromeliads I am familiar with! In fact, pictures of this species were in the "What is a bromeliad?" newsletter years ago, since they don't look like most bromeliads.

Since there are only four species, this article will go off on a few tangents.

Charles Antoine Lemaire described the genus and the first known species, *D. basi-lateralis*. He was a French botanist who described many other species of all sorts, including *Nidularium innocenti* and *fulgens* and *Aechmea distachantha*. For those into cacti, he also described the genus

*Astrophytum*, including; *A. asterias* and *myriostigma*, and *Coryphantha elephantidens*. For

those into succulents, he described the genus *Adromischus* (and five species), four *Agave* species, 3 *Beaucarnea* species and the very well-known *Echeveria agavoides*. He was the editor of *Jardin Fleuriste*, *Flore des Serres et des Jardins de l'Europe*, and *L'Illustration Horticole* (numerous illustrations from the latter have been shown in this newsletter.)

Does the flower look as nice as the one shown in the illustration? I could only find two pictures of them, one of which is shown below.



#### **D. basi-lateralis.** Photo by Eric Gouda.

He is the Curator of Living Collections for the University of Utrecht Botanic Gardens in The Netherlands, a regular contributor to the *BSI Journal* and *Die Bromelie* and has described a number of new bromeliad species. He and his wife, Kees, and Derek Butcher also run the *Encyclopaedia of Bromeliads*. In 2018, he received the Bromeliad Society International's highest award, the Wally Berg Award of Excellence. The genus *Goudaea* was named in his honor – *G. ospinae* used to be *Vriesea ospinae*.

For another picture of the entire plant, check out Eric's other photo on

<http://bromeliad.nl/encyclopedia/>.

Lemaire's description is in French so I don't know what he had to say about the species or the genus. According to Smith & Downs, *D. basi-lateralis* is more or less a stemless plant that propagates by stolons, and has coarsely serrate leaves up to 34 cm long and 7 cm wide. While the illustration shown on the first page shows spectacular bracts on the inflorescence, the Smith's scientific description merely states they are "imbricate, squamiform." The flowers are listed as having a 3.5 cm pedicel, with 1.5 cm sepals exceeded by yellow to red spreading petals.

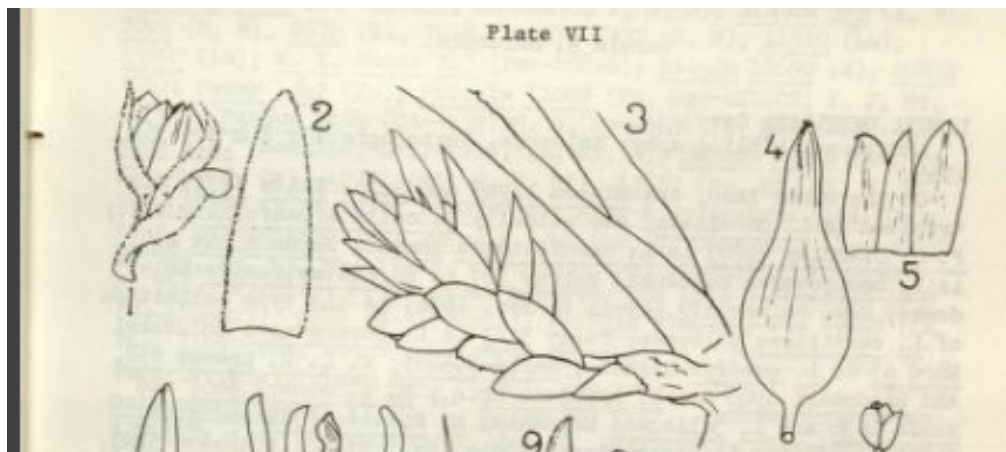
While Luther stated the 1847 Paris plants soon disappeared from cultivation, Baker included a description in his 1889 *Handbook of the Bromeliaceae* based on plants in London in 1877-79 so perhaps a few (like the Kew) grew it afterwards, or more made their way from South America. Baker considered the genus close to *Cryptanthus*, but with a lateral inflorescence, and *Ortgesia*, now a subgenus of *Aechmea*. His description said the petals were bright yellow. I am not sure where S&D came up with yellow to red petals.



In 1960, Smith transferred the species to *Aechmea* with a one sentence explanation. He stated that “[a]lthough Disteganthus does not seem to be separable from Aechmea” the species is “quite distinct” so the new combination was made. Smith, L., Notes on Bromeliaceae XIII. 7 Phytologia 109 (1960).

However, Smith was not dogmatic, and 16 years later he and Read resurrected the genus *Disteganthus*. They noted he had disregarded its pedicellate flowers which were inconsistent with *Aechmea* subg. *Purpurospadix* (which is now considered a synonym of subg. *Chevaliera*) where the species had been placed. While the features were not new to *Aechmea*, “its flowers are not those of *Purpurospadix*, and it would seem best to reconstitute” the genus. Smith, L. & R.Read, Notes on Bromeliaceae XXXVIII. 33 Phytologia 433 (1976).

Tangent #1. Recall that the Paris plant was from French Guiana. Another tangent – is it a country? “**French Guiana** ([/ɡiːˈɑːnə/](#) or [/ɡiːˈænə/](#); [French](#): *Guyane* [\[ɡijɑ̃\]](#)) is an [overseas department](#) and [region](#) of [France](#) on the northern [Atlantic](#) coast of [South America](#) in [the Guianas](#). It borders [Brazil](#) to the east and south and [Suriname](#) to the west. French Guiana is the only territory of the mainland [Americas](#) to have [full integration in a European country](#).” [https://en.wikipedia.org/wiki/French\\_Guiana](https://en.wikipedia.org/wiki/French_Guiana). It is about 1/5 the size of California, but only has about 300,000 people. The article notes that there are over 5500 plant species there, but “has some of the poorest soils in the world.” Sadly, perhaps the interesting tidbit about the region is that it used to have a penal colony known as Devil’s Island where up to 75% of the prisoners died. “Henri Charrière’s bestselling book *Papillon* (1969) describes his successful escape from Devil’s Island, with a companion, Sylvain.” [https://en.wikipedia.org/wiki/Devil%27s\\_Island](https://en.wikipedia.org/wiki/Devil%27s_Island)



*Aechmea*

*calatheiodes*, later recognized as a *Disteganthus* species.

Smith, L., Notes on Bromeliaceae XXIII. 13 Phytologia 161 (1966). Items 3 & 4 above are line drawings of *Aechmea calatheiodes*, which Smith described in 1966. [Smith almost never included photographs in his works, and often had no illustrations at all.] In 1976, Smith transferred the species to *Disteganthus* as *D. calatheiodes*. His Latin diagnosis distinguished it from *D. basi-lateralis* based on its serrulate sepals and a longer pedicel. It was found in northern Brazil.



It seems likely that very few collectors were even aware of the genus until 1990 when Harry Luther wrote about it. “The genus *Disteganthus* has for many years remained an almost mythical entity to bromeliad collectors. Even the few who were aware of its existence knew little more than that it flowers from the base of the plant and vaguely resembles a large and spiny *Cryptanthus beuckeri*.” Luther, H. J.B.S. 40(3): 99-100. 1990. Luther noted there were only 4 collections of *D. basi-lateralis*, two of which were by Dr. John Kress at Selby Gardens. It was first auctioned at the 1988 World Bromeliad Conference. Luther noted it grew well in southern Florida, but had not flowered. It should not be grown below 62 degrees, which may well explain why it isn’t grown widely in Southern California, if at all.

Eric Gouda is the next major player in the *Disteganthus* story. It turns out that he did a lot of work on bromeliads in French Guiana. In 1994, he recognized that a few plants he found there

were like *Aechmea lateralis*, which M.B. Foster had found in neighboring Surinam in 1948 and Smith later described in 1954. Smith had noted its similarity to *A. magdalенаe*, *fernandae*, and *rubignosa*, each of which was discussed in recent newsletters.

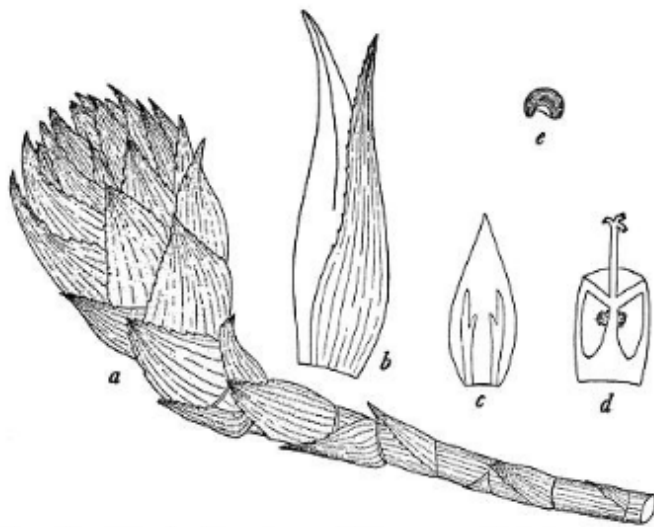







FIGURE 81.—*Aechmea lateralis*: a, Scape and inflorescence,  $\times 1/2$ ; b, flower and floral bract,  $\times 1$ ; c, petal,  $\times 1$ ; d, longitudinal section of ovary,  $\times 1$ ; e, seed,  $\times 1$ . (All after M. B. Foster.)

*Aechmea* (now  
*Disteganthus*)  
*lateralis*.

Contr. U.S. Natl. Herb. 29: 525  
at 526. 1954.

Foster originally thought he had found a *Disteganthus* species:

“At first, I thought I had found the long lost *Disteganthus basi-lateralis* which was discovered by Melinon in French Guiana in 1846. But the leaves on this new discovery were so entirely different that it seemed that this must be a new species, and so it proved to be. Dr. Lyman Smith named it *Aechmea lateralis* and later he threw the genus *Disteganthus* into synonymy, renaming the old species found by Melinon, *Aechmea basi-lateralis*, (*Phytologia*, Feb. 1960, Vol. 7, No. 3).” Foster, Mulford. LATERAL INFLORESCENCE IN THE BROMELIACEAE — II. XII(5) Brom. Soc. Bull. (1962).

	Main	Description	Synonyms	References
 <p>main - index - synonyms -</p>	<p>← 39-2 →</p> <p>◀ <i>Disteganthus lateralis</i> (L.B.Sm.) Gouda</p> <p>(subfam. Bromelioideae)</p> <p>Publ: <i>Brittonia</i> 46: 134-6. (1994)</p> <p>Type: Foster 2387 (holotype, US), Paramaribo, Suriname, 2 Oct 1948.</p> <p>Search images on  Permanent URL</p>			<p>Distri</p> <p>Habit</p>
<p><b>Disteganthus</b> </p> <ul style="list-style-type: none"> <li>• basilateralis*</li> <li>• gracieae</li> <li>• lateralis*</li> <li>• morii</li> <li>• EXCLUDED TAXA</li> </ul> <p>items: 4</p>				
				<p><i>Disteganthus lateralis</i></p>
				

Photos by unknown photographer, they appear on the Encyclopaedia of Bromeliads. I encourage you to visit this website. <http://bromeliad.nl/encyclopedia/>

Tangent #2: Before continuing, note that Suriname (or Surinam) is a former Dutch colony that is now the smallest country in South America. It is about twice the size of French Guiana (which is on the eastern border), and has about 600,000 people, about half of whom live in the capital, Paramaribo. Major industries included bauxite mining, oil and gold mining, rice, bananas and shrimp.

Returning to *Aechmea lateralis*, Gouda noted that the species had “lateral, strobilate, simple inflorescences” borne below the rosette, which is common to *Disteganthus*, and “very rare in *Aechmea*.” Gouda, Eric. *Disteganthus lateralis* (Bromeliaceae), a new combination for the flora of central French Guiana, *Brittonia* 46: 134-6 at 134. 1994. *Disteganthus* also have “relatively small sheaths that do not form a distinct tank, as in most *Aechmea* species.” Id at 134.





***Aechmea lateralis* L.B. Sm.**, Smith, L. B. 1954.

Contr. U.S. Natl. Herb. 29: 525. Holotype (Bromeliaceae). This is the type plant collected by Mulford Foster in 1948.

**Collection:** Foster, M. B.; 2387; Suriname; Paramaribo; Paramaribo.

**Other Taxonomic Names:** *Disteganthus lateralis* (L.B. Sm.) Gouda

**US Catalog No.:** 1951856 **Barcode:** 00091491

Gouda noted the new species had very different leaf blades than *D. basi-lateralis*. The latter has petiolate leaves that are linear-lanceolate or lance-ovate, while *D. lateralis* has linear leaves that are somewhat narrowed at the base. (More on this later.) It is also a much larger plant with leaves that can be well over 8ft.

A few years later Gouda realized that *D. calatheoides*, discussed above, is the same species as *D. basi-lateralis*. Gouda, E. Studies on the Flora of the Guianas no. 90: Checklist of Bromeliaceae of the Guianas with notes on critical species. Selbyana 20(1): 30-9, 1999. He noted that new finds of *D. basi-lateralis* revealed that some plants had entire sepals and others had serrulate ones, sometimes in the same population. Since this was the primary difference between the two species, they should be considered the same.

Tangent #3. Based on Gouda's Checklist, there were 128 species in the Guianas in 1999. Many are in genera rarely found in cultivation anywhere, like *Brocchinia*, *Bromelia*, *Navia*, and *Connellia*. I was curious how many species in the Guianas are seen in California. There are many *Aechmea*, but except for *A. nudicaulis* and *bromeliifolia*, most aren't commonly seen. Others that are well known are *Billbergia pyramidalis*, *Guzmania lingulata*, *Lutheria* (formerly *Vriesea*) *splendens* and *Vriesea platynema*. There are a lot of *Guzmania* and *Pitcairnia*. Finally, there are numerous *Tillandsia*, including *T. bulbosa*, *fasciculata*, *fendleri*, *geminiflora*, *pruinosa*, *stricta*, *tenuifolia* and *usneoides*.

Thus, as of 1999, there were only two *Disteganthus* species. Since its inception in 1847, the number of *Disteganthus* species has gone from one, to none (1960 - when Smith transferred *Disteganthus* to *Aechmea*), to 2 (1976, when Smith and Read resurrected the genus and included *A. calatheoides*), to 3 (in 1994 when Gouda realized *A. lateralis* belonged in the genus), and back to 2 (in 1999 when Gouda realized *D. calatheoides* was the same as *D. basi-lateralis*). All of these changes resulted from new studies of the plants in question, showing how the taxonomic process is supposed to work.

Tangent #4- who knows anything about Guianas? Guianas is "the large shield landmass north of the Amazon River and east of the Orinoco River known as the "land of many waters". <https://en.wikipedia.org/wiki/Guyana>. It consists of French Guiana, Suriname and Guyana (sometimes parts of Brazil and Venezuela are included). Guyana is the only English speaking country – it is sandwiched between Venezuela and Suriname.

The last major development was in 2015, when two NYBG botanists described two new species. They found one in central Suriname, and also "detected that many specimens assigned to *D. lateralis* differed substantially from the type and corresponded to a completely different, until now undescribed, species." Aguirre-Santoro, J. and F. Michelangeli. 2015. Two new species of *Disteganthus* (Bromeliaceae) from Suriname and French Guiana. 67(3) Brittonia 233-42. Aguirre-Santoro received his doctorate on the bromeliad genus, *Ronnbergia*, discussed at length in the July and August 2017 Newsletters.

The two new species, *D. morii* and *D. gracieae*, were named in honor of Carol Gracie and Scott Mori, a married couple who have studied the flora of the Guianas extensively. She participated in the expedition, and he is a leading authority on the Lecythidaceae family (which includes the Brazil nut tree).





Habit of *Disteganthus morii* Saul, French Guiana, Van Rjin 50.

Photo by Carol Gracie. Many thanks to Julián Aguirre-Santoro for sending this photograph which appeared in the 2015 Article.

It is worth noting that of the four *Disteganthus* species, only *D. basi-lateralis* has a leaf petiole. This is fairly unusual for bromeliads. From what I have found, some other genera with some species with petioles are *Bromelia*, *Pitcairnia* and *Cryptanthus*.

These two new species are discussed in more detail next month. One more tangent on the next page .....



Left -- Guyana may be best known for **Kaieteur Falls**, the largest waterfall in the world by water volume. Photo by Sorenriise at English Wikipedia, CC BY-SA 3.0, <https://tinyurl.com/y2e4tuoy>

Below is a map of the Guyanas (or Guianas). [ArnoldPlaton](#) - Own work, [CC BY-SA 3.0](#) [https://en.wikipedia.org/wiki/The\\_Guianas#/media/File:Guyanas.svg](https://en.wikipedia.org/wiki/The_Guianas#/media/File:Guyanas.svg)

