

Watermark *Aechmea fendlerii* Photo by Desiree Meyer Boxes are *Billbergia pyramidalis* flanking *Billbergia Hallelujah* Photos by Desiree Meyer



BromeliAdvisory

October 2020 WEBPAGE: http://www.bssf-miami.org/

http://www.facebook.com/groups/BromeliadSSF/?b ookmark t=group http://www.facebook.com/pages/Bromeliad-Society

http://www.facebook.com/pages/Bromeliad-Society -of-South-Florida/84661684279

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What	Who
Sales Table	Open to All We welcome members to sell plants at the monthly meetings. However, if you are planning to sell please call Alex Bello (239-223-6155 or bellotropicals@yahoo.com) to make arrangements.
Silent Auction	NONE

Stop and Smell the Bromeliads

OCTOBER 20-27, 2020 SPEAKER: NONE This is our first Autumn ONLINE AUCTION FOOD: Pour yourself a pineapple drink while looking at the plants and bidding.

President's Message

Another month has passed and still Covid is with us. But there is a light at the end of the tunnel. Numbers and the infection rate are down in Miami-Dade and Fairchild has given the plant societies the green light to meet in person starting in January. The Board will be discussing the pros and cons of this news. We have had a Covid meeting plan in place for months. Of course that will require the cooperation of the members in wearing masks and keeping social distance. Do you think we can do it? I would do just about anything to meet in person again. More on that in future newsletters.

This month we will not be having a zoom meeting. Instead we are hosting our annual auction which will be online instead of in person. The auction begins at 7:30 pm on Tuesday, October 20, and ends one week later. We are busy uploading plant photos and accepting donations from growers, sellers and prize winning members. We should have about 100 plants to choose from. You will have a week to bid and study the plants and pickup is at my house noon to 4 pm on Halloween. I will be the one in the witch's hat.

The link for the auction is <u>https://www.32auctions.com/bssfauction2020</u>.



See you at the AUCTION.

Maureen Adelman

BromeliAdvisory Page 2

In Case You Missed It

by Leonard Goldstein

Our latest remote meeting program, on September 15, was presented by a familiar face. Alan Herndon, a rare southern Florida native and co-owner of Tradewinds Tropicals, shared 20 years of observations in a program entitled "Ins and Outs of Variegation: Bromeliad Edition."

leaf. Variegation will always be manifested in lines or bands that run the entire length of the leaf. That's a consequence of the way bromeliad leaves grow. Hohenbergia 'Carla' helps illustrate the phenomenon, because, unlike many bromeliads, it shows almost all of its leaf base.

The topic hints at the fact that the term 'variegation' is used in a very specialized way with bromeliads. Alan posed the question, "Why do we care about variegated plants?" Most people, he explained, like the looks. Variegation brings out contrasts; Neoregelia 'Picasso' is but one example. N. 'Zoe' and N. 'Sunita' are smaller attractive cultivars. N. 'First Neoregelia Bossa Nova Prize' is dominated by red,

and N. 'Sweet Vibrations' is full of colors on a pink background. Planting in bunches makes an even better impression, adding to the interest.

N. 'Bossa Nova' is one of southern Florida's standard landscape plants. Albomargination makes its leaves stand out. N. 'Sheba' planted in a grouping shows plants in different stages of development, including new pups.

The unique colors found in bromeliads are due to the interaction of different color systems, and chlorophyll plays a key role. Reddish coloration in bromeliads is normally produced by pigments known as anthocyanins. A white spot overlaying a site that contains no chlorophyll will truly be white. Where the spot overlays a site that still has some chlorophyll, it will be green. Those two bits of information provide the key to understanding variegation in bromeliads. Trichomes also influence the range of colors.

Variegation in bromeliads is really a matter of areas where chlorophyll is not produced in the



Alan summarized the prerequisites for variegation in bromeliads: (1) Lines that (2) go all the way from the top to the bottom of leaves. He then described what does not constitute variegation i n bromeliads: (1) White dots, such as those commonly seen in Billbergias. The dots can even fuse, but since

they are not lines, they do not qualify as variegation. (2) White splotches, such as those seen in *N*. 'Marble Throat', are not formed by lines, so do not qualify as variegation. (3) Red lines are not considered variegation, but may deserve to be. They affect a different layer of the leaf than the cells which contain chlorophyll. They are in the layer of red pigments—the anthocyanins.

There are three major patterns of variegation, but Alan cautioned against taking the subject literally: (1) Central, where the area whose cells lack chlorophyll is either a dark band or a bunch of narrow bands or lines that are clustered around the midrib. (2) Marginal, where the area without chlorophyll is close to the edge of the leaf. That doesn't mean that there can't be lesser bands near the midrib. (3) Striated, a trait rare in cultivation. It consists of a random pattern of lines and bands.

(1) Examples of centrally-located variegation include N. 'Picasso', a proven standby in our region. Aechmea chantinii 'Samurai' has lots of green in some leaves and white bands in

others, but overall it is centrally-variegated. A. lueddemanniana 'Alvarez' differs from its

species of origin through its striking colors. Vriesea bituminosa X saundersii, despite green bands, is c e n t r a 1 1 y variegated. The old classic, N. carolinae 'Tricolor', is also differentiated from its species of origin by color. N. carolinae is dark green, but pink shows up in the 'Tricolor' cultivar.

Not many variegated bromeliads are grown by large-scale nursery operations. They are generally harder to raise and consequently hold down production. But one

exception is *N*. 'Orange Crush'. It has good color and grows well under large growers' conditions. Bands of lighter color are seen as yellow instead of white. Red is created by a separate layer of cells containing—as you might suspect by now—anthocyanins.

Tillandsia 'Leiboldiana Median' features pure white variegation. *N. johannis* has a strong connection to the BSSF, via Larry Girault, who was a member mainly in the 1980s. His job took him to Brazil, where he found this species growing in the wild. Over the years, it has become more variegated through selection.

Guzmania 'Tricolor', a cultivar of *G.* sanguinea, is not easy to keep variegated over the generations. It can be improved through selection, but the problem is that plants of this cultivar produce only 1-2 pups per generation, and luck is necessary for good variegation. *G. musaica* is a species that has an albomarginate form which isn't easy to keep. Part of the problem is water quality; that can be ameliorated through use of a reverse-osmosis watering system. Cross-banding is common in the species.

(2) Marginally-located variegation is light in color—often white, but sometimes yellow. The white form tends to be called

albomarginate; the yellow form, flavomarginate. Albomarginate cultivar N.

'Bossa Nova', a standard landscape plant in southern Florida, can take a lot of sun, and will climb trees to create a tropical look. Alan considers N. 'Sheba' probably the most undeservedly neglected bromeliad in southern Florida: he believes it should be used more. Grown fast-that is, pushed by fertilizer-it is albomarginate. Grown slowly, i.e., with little or no

fertilizer, and in adequate light, it expresses red.

Orthophytum vagans is also albomarginate if grown fast, but it has a fairly dark leaf because of an anthocyanin layer of cells. If the plant is grown slowly, the red layer will show through as pink. N. 'Pink Powder' is an albomarginate miniature. It's not suitable for commercial growing, because it is a little slow, less vigorous, and less stable than is desirable. A. orlandiana 'Gold Tone' is a marginate form with weird bands that show up as red forms in areas without chlorophyll. Like others in the Α. orlandiana group, this one has characteristics that set it apart from other Aechmeas, and the variegation adds more emphasis to the color.

N. correia-araujoi is a fast-growing albomarginate clone from Brazil, likely wild-collected. There is some reddish color in the plant, and once a fertilizer application is used up, the red will become more evident in the leaf, and the albomarginated portion will turn very pink.

Aechmea lueddemanniana 'Mend' (a/k/a A. 'Mend') is an old cultivar dating back to the early days of the BSI. It was developed by Alberts & Merkel, a Loxahatchee-area nursery that was among the earliest in the U.S. to have



a large selection of bromeliads. Its catalogue provided a big boost to identification among collectors in the 1960s. *A.* 'Mend' is a very nice-looking plant. As it approaches full size, when its growth rate slows, its color becomes more intensified.

Quesnelia testudo, perhaps a hybrid, is albomargina

te, with no trace of red. Its spines, relatively speaking, are small, and it's another nice-looking plant.

(3) The striate pattern's best-known representativ e is probably t h e variegated form of Hohenbergia castellanosii. Quesnelia testudo



One reason

why striate forms aren't seen much in cultivation is that most are pretty weak. Only a small portion of the chlorophyll has stopped producing chlorophyll. What's left is a yellow that doesn't contrast well with the green. This plant may only be for the collector who wants to own *any* variegated bromeliad.

Other striate plants are not very stable. The basic questions for the grower to consider are (1) whether the variegation will be maintained through the generations and (2) how the plant can be treated to maximize the chance that pups will maintain the variegation. N. 'Sheba' answers those questions. It pups freely, and each offset possesses the mother plant's variegation. This cultivar is no worry and requires minimum care. That doesn't mean that 'Sheba' never has instability. Sometimes pups vary from the mom, but it's rare to lose the defining features of a cultivar in a single

generation. There are enough other pups that will grow true to the mom. To maintain the cultivar, the grower can cull oddly-variegated pups to preserve uniformity, or can just leave them until they become unsightly.

N. 'Bossa Nova' presents a whole different story. It looks like *N.* 'Sheba', but is much less stable. The width of the white margins can increase over time, and some pups can come up pure white—a guaranteed death sentence if the pup is separated from the mother, because it can't produce chlorophyll on its own. Sometimes the variegation goes bad on part of the rosette. The problem there is that pups that emanate from the white side of the rosette are almost certain to have no chlorophyll. Those individuals have to be cleaned out to prevent loss of the entire group. However, that problem is not a huge worry over the course of a few years.

In marginally-variegated plants, the breakdown shows up in the widening of the marginal strip. In centrally-variegated plants, it's the opposite. The bands become narrower through the generations. In either case, the variegation is lost. But the instability doesn't keep the successive pups from surviving, because they don't become totally bereft of chlorophyll; they just lose variegation. V. bituminosa X saundersii is an example. And *Edmundoa lindenii* has several clones with central variegation. Most of them have weak, i.e., less prominent, variegation. The loss of variegation shows up especially on one side of the plant. Nevertheless, the pups that come up on the side of the rosette that still has reasonable variegation will be



Edmundoa lindenii

just be dumped.

acceptable. This is something for the grower to look out for every 2-3 years. The desirable pups should be isolated from the others, or the others can

BromeliAdvisory Page 5

Billbergia euphemiae 'Georgia' (a/k/a *B*. 'Georgia') looks problem-free, but the cultivar isn't very stable in terms of variegation. A lot of hybrids are unstable from generation to generation. The grower should simply keep the desirable ones.

Other things that can happen when growing variegated plants are a little less obvious: (1) *A. orlandiana* 'Gold Tone' provides an example of one of those phenomena. When growth slows down and the plant blooms, the variegation can disappear. *A. mexicana* shows stronger contrast of color on the lower, earlier leaves than on the upper, later leaves. The

variegation is not disappearing; it's just becoming less evident. That is guaranteed to happen at some point in the plant's lifetime.

(2) Another thing that can happen is that a plant which has strong red coloration when it blooms may well swamp out the variegation. The anthocyanic layer is so bright that it obscures what's beneath it. But it's ephemeral. Sun and slow growth can have the same effect as blooming. In *N*. 'Morona', the bands of variegation show up in the young plant.

(3) A. lueddemanniana 'Mend'

can throw growers a curve. Offsets at first can appear to be losing variegation entirely, e.g., veins becoming small. But when the pups are planted out, the adults come out with pretty standard albomarginated variegation. So growers should not necessarily give up on pups of certain cultivars. They must know the habits of each of their cultivars and learn which offsets aren't worth dealing with. (4) A lot of plants that have nice variegation are miserably hard to grow. The variegated form of *N. marmorata* is highly unstable. It's necessary to grow multiple clumps to make sure of having a few well-variegated plants each generation. They tend to quill, i.e., leaves tend to stick together as a result of insufficient moisture while the plant is in a period of active growth. Most of the plants that end up dumped will have very poor or no variegation.

Nidularium rutilans is a superb plant if the grower can obtain even variegation all around the rosette, but it's very hard to get a nice pup



Aechmea orlandiana

out of it that meets that standard.

(5) A few bromeliads can yield a nicelyvariegated pup from a mom that exhibits sign o f n o variegation. One such plant that Alan knows is the variegated form of A. 'Bert'. He has had a clump go three generations without a sign of variegation, but then it produced fully-variegated а pup. He still doesn't understand why.

Finally, it should be noted that some bromeliads whose variegation becomes less distinct over time can be rejuvenated with fertilizer.

Barbara Partagas Drive-By Plant Sale was a Success!

On Saturday, September 19, 2020, raffle table quality plants were sold, and all proceeds go to BSSF. Hundreds of dollars were raised. Big

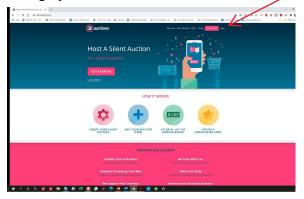
thank you to Barbara and her helpers: Lori Weyrick; Sandy Roth; Maureen Adelman and Rhonda Herndon. Great job on this inaugural COVID-19 inspired idea.

How to Log Into the Auction

1. Need to get an account.

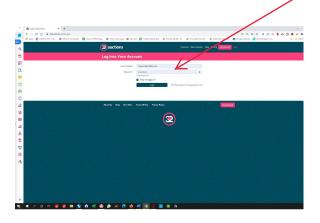
This auction is run by – https://www.32auctions.com

There is a "login" button near the top. Even though you do not have an account, click it

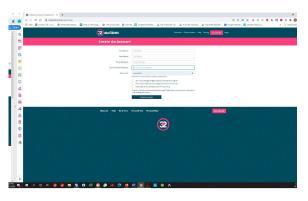


It will then ask you to login or create an account. Do whichever applies to you.

2. In the Create Account Page, you will need to handle the difficult particulars – your name, email address and create a password. That is it. Payment methods may be added.



3. After that, you login and will need to either immediately be taken to the auction or find it.

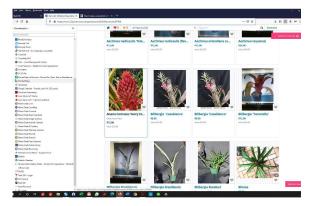


Here is the site for the auction. https://www.32auctions.com/bssfauction2020

4. The auction is pretty self-explanatory. On bottom of the page there is a green button saying, "View All Items." Click it and the pictures are uploaded. You will be at *https://www.32auctions.com/organizations/6892*

https://www.32auctions.com/organizations/6892 9/auctions/87968?r=1&t=all

Plants are listed alphabetically. Here is how one page looks.



Click on the plant you like, and bid. Similar to ebay, it will notify you by email when you were outbid.

Good luck hunting. This auction lasts for ONE WEEK

BromeliAdvisory Page 7

BSSF Slate of Proposed Officers and Board for 2021

President –	Maureen Adelman
Vice President –	Karen Bradley
Secretary –	Leonard Goldstein
Treasurer –	Olivia Martinez
Editor –	Robert Meyer
Director –	Denise Karman
Director –	Richard Coe
Director –	Stephanie LaRusso
Director –	Sandy Roth
Past President –	Barbara Partagas

The election will take place at the November zoom meeting. Anyone else wishing to run for office is encourage to submit their name to Maureen Adelman and we will have a competitive election.

UPCOMING EVENTS

October 2027, 2020

BSSF Annual Plant Sale This will be online RARE plants will be on sale

December 21, 2020 BSSF Holiday Sale

June 9-12, 2021 World Conference Tentative



MESSAGES

TREASURER NEEDED Opening for Treasurer of the

WORLD CONFERENCE SAME PLACE NEXT YEAR

World Conference will be held on June 9, 2021 to June 12, 2021 at same place. Information can be found at: https://www.bsi.org/new/conference-cor ner/

CRYSTAL

Thanks to all who have donated crystal in the past. Donate Your Crystal to our Show which we will return to you when you win awards. Contact Skye Palmer.

BECOME INTERNET SAVY

In the next few months we will have a sale and meetings ONLINE.

ELECTIONS COMING

We need two people to aid the election committee for our upcoming election.

AUCTION October 20-27

https://www.32auctions.com/bssfauction2020.