



**September 2008**  
**BSSF OFFICERS 2008**

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**Moyna Prince**  
**Robert C Meyer**

**Door Prize: Alan Herndon**  
**Education: Nat DeLeon**  
**Hospitality: Elaine Mills**  
**Library: Juan Espinosa**  
**Membership: Moyna Prince**  
**Member Plant Sales: Antonio Arbelaez**  
**Raffle: Peter & Clara Kouchalakos**  
**Refreshments: Patty Gonzalez**  
**Photos: Michael Schmale**

What	Who
Sales Table	Antonio Arbelaez

**SEPTEMBER 2, 2008 , 7:30 PM**

**SPEAKER:** Lynne Fieber and Michael Schmale with annual photo review of the Annual Show.

**RAFFLE:** Bob and Elaine Mills

**FOOD TABLE:** TBA



#### **EDITOR'S NOTE:**

This is a special BromeliAdvisory. Included in the pages are many unique items which deserve more attention than usually delivered by the BSSF's kind and conscientious readers. They are:

1. An account of the **Nat DeLeon** lecture
2. Insightful review of 2008 World Bromeliad Conference by our very own **Jose Donayre**.
3. Review of the Bus trip to three venues on the west coast on August 9, 2008 by **Moyna Prince** – together with photo.
4. Article about names by **Alan Herndon**.
5. **Moyna Prince** article about water rot
6. Repeat VA Project article.

## In Case You Missed It

by Robert Meyer

On August 5, 2008, when the society named longtime member Steve Correale as a Life Member, another longtime member, Nat DeLeon, delivered a lecture about the unquities of mass production in the bromeliad world, and how the mass producing world has affected hybrids – something to which Nat is a premier expert.

For background, Nat elicited how until 1980, planting bromeliads was basically a small farm business operated in warm temperate regions. Two events thereafter emerged that changed the small cultivation world: (1) chemical use which controlled the blooming's timing; and (2) tissue culture which allowed mass production. "These two things could make it [bromeliad growing] go in another direction." Bromeliad retail establishments blossomed to become wholesale factories.

Nat's little acreage became a larger plot which included a hot house. As inventory grew, Nat had his sons cultivate knowledge among nongrowers – interior decorators were taught how to replace other indoor foliage with more colorful and perhaps equally durable plants of the bromeliad genera.

And, with the advent of tissue culture in the hybridizing world, learning curves were allowed to be met in shorter time. Instead of limiting hybrids from two species, hybrids could be made from parental hybrids. Before tissue culture, crossing hybrids would often lead to diverse results in the pups; but, tissue culture of the "ordained master hybrid" could better establish more wanted and similar results of the hybrid offspring on a mass scale – hence making hybridizing much more diverse and interesting.

But, mass production stunts hybridizing's adventure. Many issues exist in the commercial world which do not exist for the small farmer or local owner. Nat mentioned the following concerns: (1) crossing cold tolerant species with warm tolerant species could create a plant which

favorable the cold or warmth when the opposite was sought; (2) plants that are otherwise heat tolerant, are subject to "box burn" when shipped en masse; (3) horizontal inflorescence would be crushed or stripped in shipping; (4) foliage could be disproportionate to inflorescence (hiding the color) and make otherwise attractive plant not wanted for commercial setting; and (5) plants with great foliage grow or sucker too slowly or rarely and thereby making commercial price too high for unique plant value.

To illustrate these issues, Nat brought numerous plants to the lecture. Most plants ended being warm tolerant – thereby ending the first issue. The plants which suffered "box burn" had to be scratched from production. The horizontal inflorescence were replaced with vertical-growing inflorescence which displayed equal beauty and delivered the advantage of withstanding shipping. The disproportionately long leaves on certain hybrids would be tampered with by further hybridizing – until a shorter-leaved plant emerged, thereby delivering the master shorter-leaved plant to tissue culture for mass replication. And, the uncommonly slow or rare-to-sucker plants just end their lives in the labs, as the cost of production prohibits such plants from becoming involved in the bitter world of Keynesian-economic's bottom line.

Nat ended the lecture with an insightful paradoxical conclusion: hybridization leads to less diversity. The world of mass production, after employing many of the above-referenced restrictions, has made the commercial market – or at least the market held by the large box gardening centers of Home Depot and like stores – develop homogeneity of plant style. These stores often shelve bromeliads where all look the same in structure, and the exception or distinction is that one plant's inflorescence delivers more vibrant or different color than that of the plant sitting to its side. Bromeliad diversity interestingly may have been reduced by hybridization (something engineered predominantly by mass production since the 1980's) as opposed to the foretold belief that hybridization would deliver a world of stranger-looking or more awkward plants that we could admire in pots and elsewhere. \*

*Aechmea fasciata* – The plant which Nat DeLeon calls, "the ultimate hybrid."



PHOTO by Graham Alderson

## Can you Identify this Plant?



Photo by Moyna Prince

## The 18<sup>th</sup> WBC Down Under by Jose Donayre

Cairns, Australia in North Queensland was the perfect setting for the 2008 WBC last June. A lovely seaside resort in a balmy June when the big summer crowds are partly gone, played host to the first ever WBC to be staged outside the US. People ask why was Australia selected as its site and the answer is simple. Australia is a power house when it comes to bromeliads. It has 12 Bromeliad Societies affiliated to the BSI, some larger or older or with more members than the others but all sizable by our standards and very active. It has several annual shows hosted by the various societies whose show reports get people salivating confronting the almost impossibility of acquiring plants and bringing them home. Plus Australia sports many native species and stupendous locally made hybrids. It has produced many excellent books of international fame and is home to one of the foremost authorities on bromeliads: "Uncle" Derek is in fact the famous International Bromeliad Registrar, Derek Butcher. To have seen his collection and his Registrar set up at home is an experience in itself.

Out of the 372 people registered, there were 67 from the US out of which 11 were from Florida. While the large majority of participants were from Australia there were people from New Zealand, Bahamas, Germany, Costa Rica, the



Netherlands, Japan, and South Africa.

Apart from the official meeting of the BSI Board and a Judges School both taking place before the Show, the Cairns International Hotel was decorated by not one but five commercial exhibits in an explosion of color and variety serving as an introduction to the spectacular Show and Sale. The opening ceremony with Joyce Broom, BSI President, honored Grace Goode with the Wally Berg Award of Excellence. Derek Butcher was also named Honorary Trustee.



The Show was a combined regular BSI and Cryptanthus Society event. It brought together about 250 plants from hobbyists and commercial outfits to be judged by a mix of Australian and US judges helped by a score of local clerks. Five mixed judging teams did the job attesting for the knowledge, experience and quality of the local judges. The real heroes of the Show were our Floridians Steve Hoppin and Larry Giroux who had to organize the reception, classification and placing of the plants plus orchestrating the work of the judges and clerks. There were spectacular plants of almost all of the common genera. Particularly attractive were a variety of very compact, wide leaved colorful *Vriesias* like 'Moctezumas Gem' as well as the *Neo.* hybrids like 'Jaws' or 'Leopard'. Best of show for Hybridists was a *Guzmania* 'Gisela Don Pepe' whose parentage escapes me. Best of show for Commercial was *Guzmania* 'Georgia' a cv. of 'Rana' (*wittmackii* x *lingulata* v. *cardinalis*). The plant that caused the most stir was in one of the exhibits, a *Neo.* 'Shell Dancer' presenting with all narrow leaves curled in as if just out of the beauty parlor. Having seen pictures of this plant, its shape remains a mystery. Of course, the Sale was the typically brisk, overwhelming event where plants passed quickly from vendors to happy shoppers.

There were 13 seminars spread over two days, nine of them by international speakers, who presented subjects from entertaining to technical and erudite. From *Tillandsias* (Paul Isley), *Cryptanthus* (Larry Giroux), growing bromeliads indoor (Herb Plover), the biography of Ed Hummel, the eccentric hybridist (Robert Kopfstein), the importance of water (Andrew Flower), Chester Skotak's colorful world, to studies on color in *neoregelias* (John Catlan),

microclimates (David Liddle), the weevil (Jay Thurrott), and *Diaphorantemas*, the minitillandsias (Derek Butcher).

The final banquet attended by about 400 people was an occasion to thank the hosts in particular Lynn Hudson, the Chair of the Conference which she had organized and run most efficiently. Next, back to the US, the Louisiana delegation also presented the 2010 WBC to be staged in New Orleans. Registration is open!

### **SARASOTA BUS TRIP** by Moyna Prince

Twenty-eight BSSF members and guests were up before dawn on Saturday, August 9th, to meet at Dadeland. The bus departed shortly after six and off we went in comfort and good company.

First stop was Tropiflora Nursery, just north of Sarasota, where we were greeted by **Dennis** and **Linda Cathcart**. The Cathcarts had just shipped several large boxes of bromeliads to Singapore Botanic Gardens, but you wouldn't have noticed any gaps in their greenhouses, which were crammed with Tillandsias, Neoregelias and everything a bromeliad aficionado could desire. I even saw some non-bromeliad plants coming on board the bus!

Then on to Selby Gardens, with a picnic lunch aboard the bus. At Selby we were met by **Harry Luther**, Director of the Bromeliad Identification Center, and given a tour of the greenhouses which are generally off-limits to the public. Of particular interest was the greenhouse devoted to bromeliads, which included some very rare and stunning plants. The temperature can be regulated in these greenhouses so plants requiring cooler temperatures flourish. The Display House at Selby always has an excellent number of orchid and bromeliad species and cultivars and other epiphytes. The garden, while much smaller than Fairchild, has a lovely location on the bay close to downtown Sarasota. It's well worth a visit.

After Selby we continued south to Venice where we stopped by **Michael Kiehl's**

nursery. He has an impressive supply of *Neoregelia* hybrids and species in addition to other genera. It's impossible to come away empty-handed.

Then back across the state to Dadeland where we arrived at 8:00 p.m., tired but happy after a memorable day. And a very big THANK-YOU to **Lori Weyrick** who organized the trip!



Looks like a hanging basket (really not hanging) of *Aechmea nudicaulis* surrounded by numerous other bromeliads at Harry Luther's hot house at Selby Garden  
Photo by Moyna Prince

### **Missed Out?**

**Another project is underway. Details are at the end of this BromeliAdvisory.**

## VA PROJECT a SUCCESS

What do **Robert Meyer, Desiree Meyer, Sandy Roth, Jeremy Roth, Juan Espinosa Almodovar, Alan Herndon, Rhonda Herndon, Doris Boiesen, Elizabeth McQuale,, George \_\_, and Lori Weyrick** have in common? If you answered: members of the BSSF (wrong), or good hearted kind spirited, or good looking – you would be right on the latter, but have given the wrong answer.

The answer is that they are the people who ventured to the VA on Saturday July 26, 2008 to plant the garden. And, what a feat it was.

Arriving at 10:00 AM they went to the median where arrangements had been made to plant the material, And then, in 90+ degree temperature, they witnessed that it had been

Soon thereafter, the army of volunteers followed orders of leader and designer Sandy Roth to put certain beautiful plants in certain proclaimed areas.



The once plain sight of sod, within hours, became a wonderful sight of bromeliad's kaleidoscope of wonder.

sod – leaving nothing for the plants.

But, negotiations ensued, and the parties were permitted to remove the sod.



Then they had to work on “another area.” Directly under the sun for every minute of every day the sun shine, the dirt was sand, and the plants had to be drought tolerant and sun loving.



The end result was a miracle in the sun.



At the end the group got together and somehow showed a smile after the 4 hours in the sun.



Digging began, and the sun’s heat started to tire the souls.



Alan Herndon digs the first dirt on the Project

## What's in a name?

Alan Herndon

Taxonomy is the science of identifying organisms and studying the evolutionary relationships between these organisms. As part of the identification process, a scientific name is attached to each distinct group of organisms following a formal process governed by large books of rules.

Why, you may well ask, is it necessary to go through all of this effort just to name something? After all, an informal name, for instance, *Neoregelia* 'Bob Read' unambiguously identifies a specific plant (a miniature, highly stoloniferous *Neoregelia* with an urn-shaped rosette and small brown spots on the leaves that was introduced to growers in southern Florida by Robert Read) when used in Miami. (Not having a better label available, I use this name myself, but I look forward to finding a taxonomically correct name.) Unfortunately, the clarity of such labels quickly fades as you get further from Miami. For instance, the plant mentioned above has also been called *Neoregelia* 'Smithsonian' by some people, so you need to remember both names, or be able to look up a list of synonyms (different names applied to the same plant) to avoid confusion. Worse yet, the plant called *Neoregelia* 'Bob Read' is likely to be passed from person to person over many years without a name attached. When someone finally tries to attach a name, a systematic method of finding previous names applied to this plant is needed or there is a high likelihood that a superfluous new name will be provided. Finally, different groups of people may use *Neoregelia* 'Bob Read' to refer to different plants. If you want to have any hope of identifying a plant consistently by its name, you are forced to create lists of the names applied to each plant and rules to determine what application of the name is 'correct'. In other words, you have to create the same formalized naming process already in use by taxonomists.

Plant taxonomists follow the International Code of Botanical Nomenclature. Names must be published in widely-distributed, 'permanent' media to ensure they are accessible to all interested students (in current

practice, journals must be registered with the International Association of Plant Taxonomists). All new plant names proposed within these journals according to the rules are indexed. Indices are updated frequently, so you can find all relevant names in any group of interest. In particular, the indices help plant describers avoid proposing the same name for different plants (although mistakes of this sort still occur given the inevitable delays in publication).

In addition to providing names for groups of organisms, taxonomy also attempts to indicate the degree of evolutionary similarity between groups. The various clones of *Neoregelia johannis*, for instance, are all large plants with broad leaves, an inflorescence that does not fill the cup through much of the flowering period and fruits that are red during development and maturity. These shared characters suggest a shared evolutionary history. Similarly, the multifarious clones of *Neoregelia concentrica* all presumably share taxonomically significant characters that separate them from all other populations of *Neoregelia*.

The requirement that differences be taxonomically significant is not trivial. To be taxonomically significant, a character must be genetically based (so it can be inherited), it must be consistent and it must differ from analogous characters in closely related groups. Unfortunately, it is not always easy to determine whether any given character is significant.

Very striking differences in flower or inflorescence color, for instance, may be completely insignificant. Plants with white versions of highly colored flowers are usually found when a large enough population is examined. In most cases, these occur sporadically with no discernable pattern in the population as a whole and cannot be considered taxonomically significant (although they might be quite significant horticulturally). Variegation is another example of a taxonomically insignificant characteristic that can lead to very striking differences in the appearance of two plants. Finally, whenever you deal with large numbers of plants, there are always a few freaks with unexpected characteristics such as inflorescences appearing to grow from the lateral leaf axils rather than the center of the plant or an elongate stem on a plant that normally is essentially stemless

You can also get drastic differences in the appearance of genetically identical plants simply by the response of individual plants to differences in growing conditions. With bromeliads in general, and *Neoregelia* in particular, we know that less light and more fertilizer produce plants with much longer and narrower leaves. The same degree of difference can be seen in leaf color and/or pattern. You can turn *Neoregelia* 'Fireball' green and keep it that way by simply increasing fertilizer applications. We also know that genetically identical plants of drastically different sizes can bloom simultaneously with corresponding differences in the size, and sometimes, degree of branching in the inflorescence. There are also variations caused by changed growing conditions during inflorescence development. Suppose a bromeliad that normally has erect inflorescence falls over after the inflorescence is half grown. The inflorescence continues to grow, but the tip readjusts so it is again growing straight up, completely altering the shape of the inflorescence.

Within the bromeliads, species of *Orthophytum* (in the *disjunctum* complex) can have especially startling differences in appearance as successive generations of (genetically identical) pups mature. There are differences in the number of inflorescence branches, in the separation of branches, in the numbers of flowers produced per branch and in the timing of pup production at the ends of the branches. Some of these changes are clearly related to plant size (dependent mostly upon the amount of fertilizer applied), but others are unexplained.

Facing all of these problems, taxonomists sometimes assign names to plants that confuse, rather than clarify, the relationships between groups. Other workers might then reinterpret the data in a new way, and propose a new system of names to more accurately reflect natural relationships. This leads to the name changes and lists of synonyms that are so characteristic of formal taxonomy. You don't need to fret over these changes unless you are a working taxonomist. Knowing the name used in a standard reference work (including a picture book such as Baensch) will allow you to find the information

published on almost all plants, and that is the real reason to bother with names in the first place. Knowing the name allows you to talk with other people about a plant, share experiences, etc. without having to be in the same room with the plant in front of you. So, make the effort to learn the names of your plants. It will be paid back in the greater ability to talk to others about shared interests.

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### **TOO MUCH WATER AFFECTING YOUR PLANTS?**

By Moyna Prince

Keep a close eye on bromeliads after the constant heavy rains of the last few days. Potted plants should be dumped frequently. If the mix looks really soggy, bring the plants under cover until they dry out.

Brown, mushy lower leaves indicate rot. Remove those leaves and pull the mix back from the plant, allowing air to get to it. Again, bring it under cover.

If center leaves look unsightly and smell horrible, gently pull out the rotten leaves until you reach healthy-looking ones. You might remove the entire plant from the mix and allow it to dry in an empty, clean pot. This will enable it to harden off and recover.

Plants in the ground are harder to nurse back to health. If it's a valuable one that looks a bit sick you might want to dig it up and bring it under cover. How do you know if it's sick? If the lower leaves are brown and rotting, if the center leaves are discolored and if the general condition has deteriorated.

*Tillandsias* can suffer from an over-abundance of rain if their root systems aren't allowed to dry out. Removing dead plants and leaves can go a long way to allowing good air circulation in your *Tillandsia* clumps.

Fast draining media and good air circulation will go a long way to speeding your plants to recovery.

Ed Prince Garden Sign Up Sheet will be distributed at the Meeting – your chance to engage in community service, adorn Sunset High School, and in the name of one of the society's greatest characters.