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## SOME RANDOM FLASHES, THOUGHTS AND INSIGHTS

by Herb Plever

As I inspect my collection while watering, looking at plants in flower or checking on the condition of the plants, I get occasional flashes that provoke and occupy my thoughts. Here are some recent ones:

**PLANT PLACEMENT** - If you have more than one light source in your apartment or home, you have made a choice of where to place various broms. Some of us even

make placement changes according to the season when there is less or more light and when very cold temperatures in the winter may affect window sill plants. Now that spring weather is near, this is a good time to evaluate how different plants have fared in the places where they are growing, and to consider making changes when they soon will be receiving more light (and sun if you are lucky to have such exposures) and warmer and more humid temperatures.

BILLBERGIAS - One piece in a pot of the hybrid *Billbergia* 'Strawberry' recently flowered on one of my east-south-east window sills. The view is unobstructed and they get lots of morning sun the year round,

but they failed to color up red the way they do when grown under fluorescent lights; there is something in the red/blue spectrum of the fluorescent phosphers that turns leaves red that even my south facing sun windows can't do. I conclude that *B*. 'Strawberry' is not really light sensitive and needs a lot of open sun to acquire the strawberry color for which it is named.

I was also disappointed to note that the red bracts of the inflorescence had turned to straw **before** the flowers opened. I don't know if this is a genetic flaw in the cross or is due to lack of water and/or humidity

which may have occurred at this time. If any readers have bloomed *B*. 'Strawberry' without this premature browning of the bracts, I would appreciate being advised.

If this plant were a species, the issue would be important in an evolutionary context for the survival of the species. Colorful bracts attract pollinators, but the attraction would only be useful if the flowers were open to be pollinated.

I should have photographed the inflorescence but it came up at the time I was very occupied, getting ready for surgery. This condition of the bracts turning brown before the flowers open is seen in a few other billbergia hybrids such as the recent cultivar *Billbergia* 'Strawberry

Sling', by Vic Przetocki of Australia. Vic grows in greenhouses so perhaps the browning is due to a genetic flaw. See his photo on this page.



*Billbergia* 'Strawberry Sling' showing brown bracts. Photo by Vic Przetocki.

**NEXT MEETING** - Tuesday, March 6th, 2012 promptly at 7:00 P.M. at the Ripley-Grier Studios 520 8th Ave. (between 36th & 37th St) Room 16N

- 1. Herb Plever will demonstrate the removal of an upper pup from Les Graifman's *Guzmania sanguinea*, and Les will offer the removed pup for sale.
- 2. Member survey of the plants you are growing and where in your apartment you are growing them. A discussion and exchange of views we hope will inform members of the plants that are best fit for their environments and where to place those plants.
- 3. Please bring in plants for show and tell and for our sale table. Don't miss the plant sale. We'll have 4 well-marked pups of *Nidularium innocentii v. lineatum*, an *Orthophytum navioides*, pups of *Aechmea farinosa var. discolor*, (*Neoregelia carolinae* x N. 'Royal Burgundy') x (N. 'Royal Burgundy'), *Cryptanthus* 'Circuit Breaker', *Cr.* 'Arrogance', *Cr.* 'Strawberries Flambe', 2 *Tillandsia argentina*, 2 *T. caput medusae*, 3 or 4 *T. ionantha var. vanhyningii* and many more at throwaway prices.

ATTRACTIONS AND LIMITATIONS- In the bromeliad family there are thousands of species and many more thousands of hybrids and other cultivars you can choose to grow. You will be attracted to certain shapes, colors, markings etc. according to your esthetic tastes, but your choices will be limited by available space and the sizes of plants your setup can accom-modate. As you learn the cultural art of growing bromeliads, you will likely limit your choices to the plants you can grow successfully.

If you grow plants on narrow window sills (usually between 4½ - 6 inches) you are restricted to growing pretty small plants. Plastic, fiber or other synthetic plant trays are usually about 7 inches wide and they will fit on the window sill. By placing the pots against the room side of the tray you can grow some medium sized broms.

The window trays also make watering easy, because you can water the pots and the trays will catch the runoff. Of course you have to keep the pots from sitting in the water. Some trays have a narrow 1½" trough below the bottom surface. Or you can sit your plant on top of a small pot to keep the pot out of the water.

You can improve on the space and extend the

depth of your window sill by mounting a board on the wall flush with the sill with right angle brackets. A 12" board will extend your sill so can grow even large plants in the window.



Deuterocohnia mezziana in October

### **VERY SPINY**

**BROMS** - About 15 years ago I started growing some dyckias that I had bought from the late Bill Baker who had made some wonderful dyckia crosses. After a while I become interested in other bromeliad genera and the dyckias ultimately moved out of my collection. However, my interest in the "spinies" was renewed upon seeing the wonderful inflorescence on *Deuterocohnia mezziana* at the 2010 World Bromeliad Conference.

As I reported in the November 2011 BROMELIANA, I bought *D. mezziana* and *Dyckia fosteriana* 'Silver Queen' in our last spring plant order. They both have prominent spines. In that issue I showed photos of both plants taken at the beginning of

October, 5 months after I received them. I reported that they had grown rapidly - the *D. mezziana* had almost doubled in size to about 18" across and 10" high. Contrary to what you might expect of spiny saxicoles that grow dry on rocks, these plants are thriving grown wick-watered and receiving high-strength, frequent fertilizer. Four months later at the beginning of February, *Deuterocohnia mezziana* has had an incredible growth spurt during the fall and winter; it has a diameter of 23", is 18" high and the lower blades are now 1" wide.

This seemed to me to be very anomalous and inexplicable behavior until I checked habitat data. First, deuterocohnias grow in the lower Andes at altitudes of from 3,000 to 5,000 feet, where it can get quite cold in the winter. Perhaps that is why my *D. mezziana* is happy with its leaves pressed against the very cold window panes at the window sill.

I also note from Lyman Smith's Monograph that this plant is sometimes found on river banks. Though it is saxicolous, the plant no doubt roots in the detritus that collects between the rocks, and this can at times be quite wet on river banks. Finally, I recall that while many cryptanthus also grow saxicolous, they prefer and need quite a moist medium as terrestrials.



Deuterocohnia mezziana in February

In any event, this plant with its arched over, spiny leaves is (to me) an attractive rosette. The sole drawback is its very large vicious spines which can do damage to

your hands when handling the plant. I now use gloves whenever I have to move or lift it. It will all be worthwhile if I can get it to flower.

Also, the *Dyckia* 'Silver Queen' has now doubled in size and has added another tier of leaves. I plan to put these plants out on my terrace sometime near the end of April, and I'm hopeful that the increased light and often strong moving air that hits the terrace 8 stories up will induce flowering before the first frost comes in the late fall. Now that I have gotten the dyckia bug, again I plan to buy *Dyckia* 'Cherry Coke' and *D*. 'Brittle Star' F2 in our Spring plant order.

the two pieces of *Vriesea poenulata* I had bought in the spring plant sale. I mounted one on cork and put the other in a pot of shredded cedar bark. I reported that

the mounted plant dried out despite the decent humidity in my apartment while the potted plant was thriving. Its leaves are covered with trichome scales, but they are minute in size and very flatappressed on the leaf surface so the leaves are green and not grey.



Vriesea poenulata - photo by Bromelario Imperialis, court. fcbs.org

In habitat *V riesea poenulata* grows epiphytically at relatively low altitudes in moist, very humid forests. I manage keep the relative humidity in my apartment between 40% and 50% the year round with the use of cold water humidifiers. It is higher in the summer, and my humidifiers are off from May to September. That humidity is good enough to grow hundreds of tillandsias epiphytically very well.

Perhaps those minute, flat trichomes can't do a good enough job of absorbing moisture in my apartment to allow *V. poenulata* to be grown mounted on cork despite being soaked about every 10 days for an hour or more.

V. poenulata is classified as a Vriesea because each petal has two appendages (nectar scales) on its inside base, but that character is no longer recognized as valid for identification purposes. We'll have to await the results of the DNA sequencing work presently being done in European labs to find out if it is a vriesea

or a tillandsia.

## NEW POTTING MIX - Our discussion on potting



Vriesea poenulata flower-photo by Bromelario Imperialis, court. fcbs.org

mixes concluded that the shredded cedar mulch we have been using needed the addition of both water retentive and friable material. To make a new mix I got out a bag of peat moss pieces and a bag of coconut fibre

chunks I had been saving. I also bought a small bag of potting soil; I will add a small amount of soil to a new mix for cyptanthus and maybe dyckias.

I started with a mix of 55% cedar mulch, 45% pre-soaked peat moss and handfuls of coconut husk fibre and a some perlite. I potted up a number of plants with this mix and I think it will do well for my broms. The *G. sanguinea* upper pup has rooted in 4½ weeks.

<u>But</u> we have a serious problem: we simply cannot find more chunky, fibrous peat moss. It is absolutely not available anywhere. I have searched the internet and made dozens of telephone calls, and I have been told that there was no supply of this valuable product.

I plan to substitute both small and medium sized coconut husk chips for the peat. The coconut chips swell, absorb and retain water so the mix will be kept moist and still aerated by the chips. These seem to be available. If any members know where we can obtain this peat, please let me know.

## FERTILIZATION OF NEOREGELIAS

John Catlan, writing in Bromeliads Under the Mango Tree'

(Reprinted from the Nov. 2011 issue of BROMELIAD, published by New Zealand Bromeliad Society. John Catlan is an expert grower from Queensland, Australia; he is well known for his cultural experiments with all kinds of plants, especially bromeliads.)

The following observations of variegation in neoregelias could very well be swept aside by growers as an inverted pyramid of fancy balanced on a needlepoint of fact. But over the years of close observation of the effects of fertilizer on variegation, I

believe I am right.

The indicators of over-fertilization are 'the pup has bolted' as the leaves of the pups that are typically rounded will have pointed tips. Leaves will be deeper green than normal. Leaves may develop longitudinal corrugations. The growing tip may completely abort or suffer from premature flowering, which subsequently aborts. (Here Catlan makes a broader use of the term bolting which usually refers only to premature flowering. Ed.)

The cause of this is too much nitrogen fertilizer. A too heavy application will result in the initial breakdown being excessive, or a very hot spell will cause an increase in the breakdown of fertilizer.

When the pup bolts it has a dramatic effect on the variegation. The variegation in some bromeliads is more stable than in others. Bolting albomarginated plants can have the variegation reduced to such an extent that it cannot be observed to exist. If it is a fine marginated line, the growth of the plant slows down and it may gradually return in subsequent leaves. However, with variegated bromeliads it is much more likely to disappear forever.

The consequence of a bolting pup shows at maturity if the variegation has returned, and it begins to throw more pups. These naturally come from the base of the plant and they very well be green or their variegation will be distorted. We then say the variegations are unstable.

## Neoregelias - no fertilizer

I carried out experiments on neoregelias by growing them in a mix that did not break down and supply fertilizer by decomposition, and I added no fertilizer. The potting mix was lacking in nutrient to the best of my ability.

The plants lacked color and leaves and grew very slowly. By feeling the texture of the leaf you got the impression that they were very thin. The big problem I found with a plant in this stage of growth was that any adverse conditions resulted in damage to the leaves.

### Other points:

- Fertilizer affects the intensity of the red pigment. Low fertilizer uptake makes short leaves, white margin and many gaps.
- High fertilizer uptake makes long strap-like leaves, dark green, often with yellow margins.
- With adequate levels of fertilizer, the red pigment appears more intense, with fewer gaps and a resistance to bleaching. Fertilizer darkens the green and the red pigment of neoregelias, but when the fertilizer available runs out, the red pigment glows.

(**Editor's Note** - Every generalization must be tested. Catlan in effect repeals the old maxim that you should never fertilize neos. I fertilize infrequently the few light

sensitive neoregelias that I grow. They don't get leggy from this because the proportion of nitrogen to potassium in our fertilizer is only 50%.)

#### A NOTE FROM HARRY LUTHER

**re:** the photo of *Guzmania sibundoyorum* printed in the February BROMELIANA in Part 3 of the article 'Benevolent Bromeliads' by Racine Foster.

Harry says that the photo (taken from fcbs.org) is incorrectly identified as *G. sibundoyorum*. It likely is *Guzmania zahnii* or related to it. *G. sibundoyorum* is not known to be in cultivation.

Harry was kind enough to provide BROMELIANA with the true *Guzmania sibundoyorum*, and it is printed below. (The former Bromeliad Identification Center, nominally sited at Selby Gardens possesses an important living collection which should be preserved. However, bromeliad identification still depends in large part on Harry Luther in Singapore on the other side of the world. Harry will be one of the speakers at the World Bromeliad Conference in Orlando, Fl. this coming September. Ed.)



Guzmania sibundoyorum - photo by S. Dalstrom

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