

BROMELIANA

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OUR SPRING ORDER

by Herb Plever

After some unseasonable warm weather with daffodils prematurely up, we've had two snow storms in the past week, but in New York City we wound up with an accumulation of only a few inches while other areas north and west of here were got hit. So it cheers me up to be able to write about and anticipate our annual Spring plant order.

There are about 100 plants on the order list - some old favorites and many new broms to savor. Three of the six Aechmeas are new. After a long absence we're bringing back the beautiful *Billbergia* 'Cold Fusion' (See photo opposite. It will be a happy day when scientists can produce cold fusion to end fossil fuel use and reduce the greenhouse gasses which are heating the planet and creating destructive climate change.)

We're repeating 3 *Canistropsis* for those members who have not tried these easy to grow, lovely plants. *Catopsis* is even easier to grow indoors, but unfortunately we can only get *Catopsis morreniana*. I'd really like to find some *C. compacta* and *C. subulata* (Michael Kiehl, please take note). Of the six *Cryptanthus* on the list, three are new to us: *C. 'Absolute Zero'*, *C. 'McDreamy'* and *C. 'Red Rover'*.

We have three beautiful *Dyckias* on the list, and I urge you try *Dyckia* 'Cherry Coke', *D. 'Icicle'* or *D. 'Michael Andreas'*. These plants thrive on the relative dryness of your apartments.



Billbergia 'Cold Fusion'

Guzmanias always do well indoors, and we have 6 new Guzmes out of 10 on the list. You really should try a bunch of them. I'm especially eager to grow the beautiful *Guzmania* 'Marcella' and *G. 'Deseo White'* (to replace *G. 'Snowball'* which no longer can be found).

We have three tried-and-true Neoregelias, two Orthophytums and four Sincoraeas (formerly Orthophytums). Of course we have a long list of Tillandsias - this time I have chosen medium to mature plants so that you have a better chance to establish them without losing them. I have added a new Tillandsia that must be grown in a pot - *Tillandsia 'Mora'*.

The list has eleven great *Vrieseas*, small to medium in size and with many-branched spikes of multiple colors. Included are *Vriesea 'Intenso'* in its yellow, orange and pink forms and *Vr. 'Evita'*. We will discuss potting media supplies and how to get them at our April meeting so you will be ready to pot up your plants after you pick them up. They will be coming bare-root, and to avoid the shock that plants undergo when they are removed from the medium by the nursery it is best that you repot them quickly, in not more than 2 or 3 days.

Treat yourself to a Spring present by buying some new bromeliads at very affordable prices.

NEXT MEETING - Tuesday, April 4th, 2017 **promptly** at 7:00 pm at the Ripley-Grier Studios, 520 - 8th Avenue (betw. 36th & 37th Ave) **Room 16M**.

PLEASE COME EARLY AS WE WILL START ON TIME

VIDEO OF PLANT ORDER - Photos of the bromeliads on the spring order including closeups of their inflorescences and tips on light requirements to help you make your choices and buy great plants at bargain prices. Please bring in plants for sale and for Show and Tell.

The Extensive and Overlapping Habitats of the Cactus and Bromeliad Families

by Paul Wingert

(Reprinted from the Jan.-Feb. 2017 newsletter of SEMBS, the Southeast Michigan Bromeliad Society edited by Penrith Goff. Paul Wingert is a talented grower, hybridist, cellist and current President of SEMBS.)

The Cactus family with more than 10,000 species and the Bromeliad family with approximately 3,500 species, are two of the largest New World plant families which are almost entirely endemic to the American continents. The cactus family has a more extensive range due to the great number of species which have adapted to winter cold. In the American tropical and subtropical regions, the two plant families share an incredible range of habitats, and are frequently to be found growing side by side.



Dyckia hebdingii and cactus sp., Brazil

Best known to most cactus and succulent growers are the succulent-leaved bromeliads. These include the genus *Hechtia* - a Mexican and Guatemalan endemic consisting of 75 species; the genera *Dyckia* (169 spp.), *Encholirium* (33 spp.), *Deuterocohnia* (17 spp.) and *Orthophytum* with the



Columnar cactus, *Mammillaria nizandensis* (small, white cactus), *Hechtia isthmusiana* in Oaxaca, Mexico in dry season. Photo by Andy Siekkinen

new genus, *Sincoraea* (68 spp., up significantly from the 2 known species in 1939!). They range from Brazil and Bolivia, Paraguay, Uruguay and northern Argentina.

Many are quite hardy, and survive in habitats that experience winter temperatures as low as 20 F. and even occasional accumulating snow! Most of them experience seasonal rains, as well as extended dry seasons.

There is a great diversity of these plants found in sunny niches throughout a number of ecosystems--they are found from southern Texas through Mexico and Guatemala in North America, and in the Caatinga, Pampa, Restinga, and more often Campos Rupestres ("rocky fields") and Cerrado vegetation of South America. In southwest-central Brazil (primarily Mato Grosso and Minas Gerais), the rocky outcroppings of the Cerrado biome shelter numerous species of *Dyckias* and *Encholiriums*.

Another common plant association is that of Cacti and numerous species of the genus *Tillandsia* (a recent count shows 774 spp.). Many varieties of *Tillandsia* can be found growing epiphytically upon cacti. Each family has evolved to take advantage of the limited water resources, and while rain may be in short supply, many of the ecosystems are visited by periodic fog.

It is well known that most cacti have abandoned



Recently described *Dyckia delicata* from southern Brazil. Photo by Constantine Gastaldo



Tillandsia circinnatoides x concolor, natural hybrid on *Pachycereus weberi*, Oaxaca, Mexico. Photo courtesy of Andy Siekkinen.



Mammillaria sp growing epiphytically on a clump of *Tillandsia ionantha*. Photo by Andy Siekkinen

the typical leaves as a means of water conservation. The spines (areoles/modified leaves) have developed not only as a means of protection, but also can act as “condensers” of the fog, directing tiny rivulets of precious moisture to the base of the plant. Tillandsias have taken a significantly different approach. Foliar trichomes have evolved to become very efficient atmospheric “sponges”. They also serve to protect the leaf surfaces from intense solar radiation.

All cacti, and most Tillandsias, share the evolutionary strategy of Crassulacean Acid Metabolism (CAM). This is a strategy adapted by many arid dwelling plant species, where the leaf stomata are closed during the day in order to reduce moisture loss from transpiration, and then open during the night-time hours (basically the reverse of what students learn about plants in elementary school biology classes). □

(Editor’s note: Only nine photos of cacti and bromeliads closely sharing a habitat are shown here, but there are many other examples of this



Undescribed *Encholirium* species, Minas Gerais Brazil. Photo by Eddie Esteves.



Tillandsia tenuifolia and cactus spp. growing on a granite inselberg, Pernambuco, Brazil, Photo by Andy Siekkinen.

relationship that can be found on the internet.

Of particular interest to me is the *Tillandsia tenuifolia* in the photo below, closely sharing a habitat on a granite hill with an unknown cactus, and it is strongly reminiscent of *Tillandsia tenuifolia* var. *suraminensis*.

The physical characters of these plants precisely coincide with Lyman Smith’s description in the Monograph of *T. tenuifolia* var. *suraminensis*: as having stout leaves that are secund (they all lean in one direction) but are separate from each other, and a polystichous inflorescence that exceeds the leaves. Harry Luther recognized var. *suraminensis* in the 2012 List of Bromeliad Binomials as did Bruce Holst in the 2014 List, published by Selby Gardens.

However, in 2010 Eric Gouda synonymized var. *suraminensis* with var. *tenuifolia* and it appeared so merged when TAXON was created. It is certainly



Planting of *Dyckia* 'Cherry Coke' and *Echinocactus grusonii* at Huntington Botanical Gardens, California. *Dyckia* clumps can get huge! Photo by Louis Raymond



Garden planting of Hechtias and other bromeliads, Aloe and Astrophytum near San Diego, California. Photo courtesy of Andy Siekkinen.

true that *T. tenuifolia* is very variable and that there is some character overlapping of its 6 varieties. Such overlapping, if it existed in natural habitats, should affect the recognition of all the varieties, but only *var. suranimensis* and *var. strobiliformis* were synonymized into *var. tenuifolia*. (*Var. strobiliformis* became a cultivar in 2011 as *T. 'Strobiliform'*.)

Readers know that I am an enthusiastic supporter of TAXON, but on the issue of recognizing *var. suranimensis*, I respectfully disagree. I think *var. surinamensis* is significantly distinguishable from *var. tenuifolia*. Smith describes the latter as having an “inflorescence shorter than the slender leaves; leaves scarcely or not at all secund.”

This is not a question of variability of individual specimens in collections or herbariums - it is what exists or existed in populations in habitat. On that point, Derek Butcher, who has an enormous catalog of photos, advised me that he had no habitat photos of *T. tenuifolia* and was not aware of habitat photos elsewhere. I would like to know how large a percentage of plants in an actual population are variable and different from the majority of plants. In my view, if it is a small percentage, then that population represents a valid variety for identification purposes. To me that is the significance of this habitat photo of *T. tenuifolia* with the key characters of *var. suranimensis*, because there is only minimal variation among the plants - a few are merely secund while most are strongly secund.

In the next column I offer photos to compare three varieties of plants I have grown. I have included

a photo of a blue flowered form of *Tillandsia tenuifolia*. It is generally classified as a form of *var. tenuifolia*, but the leaves are secund and the inflorescence does exceed the leaves. It appears to me to be intermediate between *var. tenuifolia* and *var. suranamensis*.



var. tenuifolia



var. suranamensis



Blue flowered form of *T. tenuifolia*

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