

# BROMELIANA

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(visit our website [www.nybromeliadsociety.org](http://www.nybromeliadsociety.org))

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## More Unfamiliar Genera - L to N - Plus 9 Bigenerics

by Herb Plever

At the March meeting we will continue with our survey of more of the species and cultivars of the 57 bromeliad genera. Over the years we have covered all of the genera but there have been changes, new species and cultivars and we have many new members who have little knowledge of this material.

This month we are starting with letter "L" up to letter "N", and we will show 5 genera which will not be familiar to most of our members, plus *Nidularium* and 9 bigeneric groups. (You will recall that we presented *Neoregelia* at our February meeting.) Many of the bromeliads shown in our programs are or can be made available in our Spring plant order. It is a good idea to make notes of the plants that strike your fancy and ask questions about their size and culture and whether they can be ordered.

The 6 genera that will be shown at our March 6<sup>th</sup> meeting are as follows: in subfamily *Pitcairnioideae* - *Lindmania* (with 38 species) and *Navia* (92 species); in subfamily *Bromelioideae* - *Lymania* (8 species), *Neoglazjovia* (3 species) and *Nidularium* (45 species); in subfamily *Tillandsioideae* - *Mezobromelia* (9

species) The 9 bigenerics will be discussed below after the material on the 6 genera.

*Lindmania* and *Navia* are found exclusively on the tops and flanks of the **tepui**s, the table-topped

Venezuelan tepuis in the Chimanta massif - BSI Journal, Vol. 50, 2000



mountains in southeastern Venezuela and in Guayana. Tepuis range in altitude from about 2,500 ft. to 7,500 ft. The surface summit of large tepuis have an average area of about 270 square miles. They are covered with fog for many hours and are cool. The average temperature of high tepuis such as Auyan Tepui is 57°F. but it can go as low as 39°F.

These mountains have cores of igneous and granitic rock and are covered with deep layers of reddish sandstone. The top mesas are divided by canyons and crevices, creeks and streams and are covered with moist, acidic bogs. In ancient times it was this habitat that spawned *Brocchinia*, the first bromeliad. Many plants other than *Lindmanias* and *Navias* grow on the tepuis. The carnivorous bromeliad, *Brocchinia reducta*, and a number of carnivorous pitcher plants are found there.

*Lindmanias* are found at the cooler, higher altitudes on the top mesas or on cliff faces near the

**NEXT MEETING** - Tuesday, March 6<sup>th</sup>, 2007 promptly at 7:00 P.M. at the SLC Center, 352 Seventh Avenue, between 29<sup>th</sup> & 30<sup>th</sup> Streets, 16<sup>th</sup> floor in the large room D4.

**LINDMANIA to X NIDUREGELIA** - a video of the species and many cultivars of 6 genera and 9 bigenerics with habitat descriptions and cultural needs. If weather permits, please bring in plants for Show & Tell and for our plant sale table.

summits. They grow saxicolous on rocks or in their crevices and cracks, or terrestrially on river banks or in bogs.

*Navia* species are found mostly at the lower altitudes on the forest or rock slopes of the tepuis, growing epiphytically, saxicolous or terrestrially.



*Lindmania holstii* (BSIJ, 1988)



*Navia igneosicola*

when it is warm, and the winter temperatures near the window panes range from about 64°F. down to 56°F. at night when it is really cold. One of these days...

No *Lindmanias* are available for sale anywhere, and only one *Navia*, *Navia igneosicola*, will be on our plant

order. (See photo above.) That is unfortunate, because we know we can grow *Navia*s; the plant shown was grown from a seedling I got as a table prize at a World Bromeliad Conference some years ago.

Genus *Lymania* was created by Dr. Robert Read (Lyman Smith's close associate) in 1984 with four species transferred from *Aechmea*, *Ronnbergia* and *Araeococcus*. Since then four new species have been added to the genus. *Lymanias* are attractive, small forest epiphytes from Bahia, Brazil, and they are good indoor plants in size and culture. Available on the plant order are *Lymania alvimii*, *L. corallina* (see photo below) and *L. smithii*.

Genus *Neoglaziovia*'s three species grow epiphytically or saxicolous in open, dry thorn forests in Brazil. *Neoglaziovia variegata* (shown below) is the only species available.

*Nidularium* with 45 species and 31 registered cultivars is a well known genus. The species are all found in mid and south coastal Brazil, growing terrestrially on the forest floors or as epiphytes, low on tree trunks. The genus name comes from the latin *nidus* or nest, describing the inflorescence that sits low in the center like a nest. In *Neoregelia* the cup ends of the leaves turn bright colors at blooming time to attract pollinators. In *Nidularium* the primary bracts of the inflorescence are bright red, orange, yellow etc. Judging from the scarcity of *Nidularium* entries in WBC shows, they are much less popular now than a few decades ago. 10 species and var-

The steep, vertical sides of a tepui makes it a very arduous and dangerous climb for collectors to reach the top. (Modern collectors with financial resources can use helicopters to get there.) 18<sup>th</sup> & 19<sup>th</sup> century botanists and adventurers who made the climb came back with stories about this fabulous, isolated world. Those stories prompted A. Conan Doyle to make the trip which stimulated his science fiction novel: "The Lost World". Don't miss seeing the video; you will be fascinated by the many closeup photos of these plants **in habitat**.

*Lindmania* species are adapted to high altitude, cool temperature and fog-laden humidity; thus they are rarely found in cultivation. Perhaps collectors have been unable to provide a sufficiently cool environment for the plants when they are brought down as they have rarely survived. This is a pity because there are absolutely wonderful plants among the 38 species, including the small *Lindmania holstii* (pictured above) and *L. huberi*, and the tall *L. oliva-estevae* with many white blooms clustered on the branched inflorescence like large roses. Bruce Holst found *L. holstii* on a sandstone floor at the mouth of a bat cave on a cliff face near the top of a tepui. It has a diameter of 6 inches and would make a good window sill plant if we could ever get a few pieces of it and managed to grow it. I have a pipe-dream that I could grow one on a window sill directly in front of a humidifier, because my apartment is air-conditioned



*Lymania corallina*



*Neoglaziovia variegata* - Inflorescence in inset



*Nidularium fulgens*

ieties and 9 cultivars can be made available on our plant order.

Except for *Nidularium innocentii* var. *innocentii* cv. 'Nana' (unfortunately not presently available) all of these very attractive plants are of medium to medium-large size. Worth growing are *Nidularium fulgens* (shown on page 2), *N. innocentii* var. *lineatum* (shown on this page), *N. innocentii* var. *innocentii*, *N. rutilans*, *N. antioineanum*, *N. scheremetievii* and *N. 'Leprosa'*.

Although they grow low in the forests, that tropical light still may be higher than good available light indoors. You will have to differentiate the cultural needs of different species and cultivars. *Nidularium fulgens* gets the best markings and leaf color in a full sun south window, whereas *N. innocentii* var. *lineatum* will do better in diffuse light, and you should not permit its medium or the leaf axils to dry out. Var. *lineatum* grows best for me under fluorescent lights where its lines are white rather than cream colored.

Most of the cultivars from the 9 bi-generic crosses will be shown in the video. *X Neobergia* (*Neoregelia* x *Billbergia*) has but one cultivar. *X Neobergiopsis* (*Hohenbergiopsis* x *Neoregelia*) also has only one cultivar.

*X Neomea* (*Neoregelia* x *Aechmea*) evidently is an easy cross to make as it has 34 registered cultivars; many that you'll see in the video have striking leaf colors, but most are unavailable except *X Neomea* 'Strawberry'. *Neoregelia* is dominant for size of the blooms in Neomeas. These resemble miniature *Aechmea* inflorescences with very small or no scapes, and they are low in the cup like the Neos. Because it has dramatic color and tight conformation, my favorite is Nat DeLeon's beautiful cross of *Neoregelia* 'Royal Flush' x *Aechmea fasciata* (see photo below). I regret that it was never even registered and is not available.



*X Niduregelia* 'Penumbra' from fcbs.org

There are 13 beautiful bi-generic crosses from *X Neophytum* (*Neoregelia* x *Orthophytum*), and most seem to have been made using *Orthophytum navioides* as one of the parents. Outstanding and available are the variegated *X Neophytum* 'Galactic Warrior', *X Neophytum* 'Burgundy Hill' (Herb Hill) and *X Neophytum* 'Lisane Kiehl' (by Michael Kiehl). From the somewhat over-saturated photos of *X Neophytum*

'Aurora' and 'Ecstasy' on fcbs.org (not yet available) I would say that these cultivars should be prized additions to your collection. Of course, you must take into account that Neophytums are medium-large to large and need strong light.

*X Neorockia* (*Neoregelia* x *Wittrockia*) and *X Neostropsis* (*Canistropsis* x *Neoregelia*) each have but two cultivars, and none of them are available.

*X Neotanthus* (*Neoregelia* x *Cryptanthus*) has five registered cultivars. Three of them are lovely crosses and can be available on our plant order: *X Neotanthus* 'Cardboard', 'Firefoam' and 'Waffle'.

*X Nidumea* (*Nidularium* x *Aechmea*) has four registered cultivars, but none are presently available. Outstanding are: *X Nidumea* (*Nidularium innocentii* var. *innocentii* x *Aechmea fasciata*) made by Nat DeLeon and *X Nidumea* 'Penumbra' made by Chester Skotak (see photo above). Since 'Penumbra' was exhibited by Michael's Bromeliads at the 2006 WBC in San Diego, it is to be hoped that plant will soon be available.

Incredibly, there are 17 registered cultivars of *X Niduregelia* (*Nidularium* x *Neoregelia*). Only two of these, *X Niduregelia* 'Garnet' and 'Something Special' are available to be ordered. The exquisite *X Niduregelia* 'Souvenir De Casimir Morobe', 'Heart Afire' and 'Pipe Dream' are worth acquiring when they're available.

Judge for yourself when you see most of the foregoing bi-generic cultivars in the video. □



*Nidularium innocentii* var. *lineatum*



(*Neoregelia* 'Royal Flush' x *Aech. fasciata*)



*X Neophytum* 'Galactic Warrior'



# MEMBERS' CORNER



From George Axiotakis:

## DO WE NEED ALL THESE HYBRIDS?

I am astounded by the human need to value man-made hybrids over natural beauty--as if anything we could make can match an *Aechmea chantinii* or *Vriesea splendens*. I have the same reaction to my fellow aquarists (goldfish with upward-facing eyes, red parrot cichlids;) and herp keepers (the trend to making albino forms--which makes different species look the same!)

Now, I admit that SOME hybrids look good--and some are downright necessary for the terrarium keeper! But over 3,000 Neoregelia hybrids? My own aesthetic objections aside, is there a sound horticultural need for all this hybridization?

In a number of plant families, (*Alocasia*, *Anthurium*, *Begonia*;) the hybrids are in fact often more vigorous houseplants than their parent species. Does this apply to bromeliads as well? My own reading and experience leads me to the working supposition that it does seem to apply to some Tillandsioids (soft-leaved Guzmanias and Vrieseas), but not so much to Bromelioids (the hard-leaf Aechmeas, Billbergias, Neos;) Your thoughts?

Response by the Editor:

Years ago when we started to grow bromeliads (the BSI is only 56 years old) we had many retail nurseries who acquired their stock from collectors or by growing select plants from seed. We've seen an explosive introduction into the commercial market of bromeliad hybrid cultivars in the past few decades. These were made possible by the perfecting of tissue culture techniques by a few commercial experts which enabled them to profitably sell hundreds of thousands of clones of hybrids (made by themselves or other hybridizers) in small cell packs to wholesalers. Large wholesalers are now doing tissue culture and millions of clones are being produced. At the same techniques for reliably forcing bloom were improved and perfected.

There is still a good market for attractive bromeliad species, but the problem is that economic factors have driven all the small retail mail-order nurseries but one out of business.

Some few species like *Aechmea fasciata*, *A. chantinii*, and *Vriesea splendens* are tissue cultured and marketed, but the overwhelming production is in tissue cultured man-made cultivars. Only now are bromeliads becoming popular as house-plants, and that is likely due to their availability at low prices in super-market chains

to whom the cloned hybrids are sold. So like it or not, this development is not in our power to change; in the global economy, money is king. We are very lucky (and thankful) that the dedicated Michael Kiehl, our one remaining retail, mail-order nurseryman, still maintains a large list of species for sale.

Vigor can only be measured from offsets that are grown on over a number of generations. Without a lot of data and experience we can't safely generalize whether species or hybrids are intrinsically more vigorous. (For many years I was able to grow on strong species clones that I bought from Ed Hummel in the 1960s.) Vigor probably varies from plant to plant in both categories. I think George is right that the tissue-cultured hybrids are usually very vigorous. They are carefully tested for cultural problems before being mass-produced for the market. Experts like Reginald Deroose combine science and art and can intuit cultural weaknesses in a plant and reject it for production.

## NEWS and NOTES

**THE EDITOR** asks you to contribute any questions you have about culture or identification in a brief note, paragraph or letter. This is your publication; it will be enriched by your questions or comments as a grower, whether you are experienced or a novice. Such contributions and the responses will certainly be valuable to other readers who have had similar growing problems. I thank George Axiotakis for his submissions. The MEMBERS CORNER needs your input. It would be important for us to read about some growing experience from our new members.

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