



May 2006

**CALOOSAHATCHEE
BROMELIAD
SOCIETYs
CALOOSAHATCHEE
MERISTEM**

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Tillandsia cyanea

This photo was taken by and submitted by Bev Smith. It demonstrates the inflorescence and flower of *Tillandsia cyanea*. Don't miss the article "*Tillandsia cyanea* and Her Big Sister - *Tillandsia lindenii*".

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THE CALOOSAHATCHEE BROMELIAD SOCIETY

MEETING TIME AND PLACE:

May Meeting: SUNDAY May 21st, 2006

ST. JOHN the APOSTLE CHURCH 3049 MCGREGOR Ave. FORT MYERS.
DOORS WILL BE OPEN AT 12:30 FOR SETUP. Please bring FRIENDSHIP
plants to share with our members.

OUR SPEAKER WILL NOT BE BRINGING ANY PLANTS FOR
SALE. SO...MEMBERSHIP SALES ARE ENCOURAGED AT THIS
MEETING.

May Program

(Starting following the refreshment break)

“Mexican Bromeliad Weevil:

The Scourge of Airplants in Florida”

Our Speaker will be: Dr. Ronald D. Cave.

Ronald D. Cave is an Assistant Professor of Entomology at the
University of Florida’s Indian River Research & Education Center
in Ft. Pierce. Please read his enclosed “bio”.

May Workshop

(Starting at 1:15PM)

Pre-Summer Q & A

This is an important time of the year for bromeliads. Although many of
the aechmeas and neoregelias are blooming, many others are starting to
develop their offsets. Careful preparations such as repotting, fertilizing and
removing pups are essential duties prior to the Summer growing season.
Our expert panel will have the answers to your questions about seasonal
care of your plants.

The Caloosahatchee Bromeliad Society is an active Affiliate of:



FM-LCGC



Cryptanthus
Society



Bromeliad Society
International



FCBS

SOCIETY NOTES

The CBS Birthday Party

Again we were blessed with perfect weather, great hosts and site, tasty foods, select raffle items and great memories. Special thanks to Betsy and Bill for opening their home for our celebration. The winners of the contest are -

1. Best Lady's Pin-on Corsage - Donna Schneider
2. Best Lady's Wrist Corsage - Holly Eash
3. Best Man's Boutiniere - Tom Foley
4. Best Man's Belt Buckle - Larry Giroux

Color pictures are on the back cover.

FCBS Quarterly Meeting

Larry Giroux and Stephen Hoppin hosted the Florida Council of Bromeliad Societies' quarterly meeting at their home in North Fort Myers on April 8th. CBS members and FCBS Representatives, Deb Booker and Vicky Chirnside along with other members, Dianne Molnar, Betty Ann Prevatt, Stephen Hoppin and Larry Giroux assisted with lunch provided for the approximately 25 attendees. Vicky Chirnside is the current FCBS Chairman; Vicky conducted this well attended meeting. Each member society is asked to host a quarterly meeting on a rotational basis.

If anyone has pictures and information about the Fakahatchee walk, please send an article to me for publication.

Beautification at Bob Mason Park

By Donna Meister

If you are not familiar with it, the spacious Bob Mason Park is just west of the city boat docks, with a wonderful view overlooking the Caloosahatchee River. Thanks to the joint efforts from members of the Greater LaBelle Garden Club, Hendry-Glades Audubon Society, LaBelle Heritage Museum, Firehouse Cultural Center and the Coalition for Eco-Recreation the park has gotten some extra tender loving care.

This group of industrious folks decided the Park needed some extra help. They volunteered their time, provided the manpower, tools and even the plants. Many different varieties of bromeliads plants were donated by David and Gail Prall of Cape Coral and Vicky Chirnside from Venice who are all members of the Caloosahatchee Bromeliad Society. These 'friendship plants' as they are called, provide a beautiful addition to the park.

This energetic group of volunteers seem like modern day Johnny Appleseeds. They have taken it on themselves to beautify many areas in our lovely town with native foliage that require only a little care and water for the enjoyment of us all.

The park has a beautiful view of the river, many oak and pine trees for welcome shade and even a fenced kiddie section with playground equipment for the little ones.

Check out this little peace of paradise during your next leisure time.



Front left: Nikki Yeager, Imma Baumlisberger, Jackie and John Krystyniak, second row, Marilyn Troxel, Terri Lazar, Sherry King, Marie Hoffman, back, Collin Blecker, Jeff Lazar, Oscar Hoffman and Ruth Callin.



Correction !!!!!!!

I reported in the April issue of the Meristem, based on information from the book - Bromeliads by F. Oliva-Esteve that Billbergia eloiseae (pictured here to the left) belongs to the subgenus Billbergia. I have been informed that my source was incorrect. This beautiful plant named for a member of our Society, Eloise Beach, actually belongs to the subgenus Helicodea. Sorry for reporting the mis-information. Photo by E. Beach.

Our May Speaker

“Dr. Ronald D. Cave is an Assistant Professor of Entomology at the University of Florida’s Indian River Research & Education Center in Ft. Pierce. He received his PhD degree from Auburn University. He was a Peace Corps volunteer in El Salvador and Paraguay, and worked for 15 years at the Panamerican School of Agriculture in Honduras.

Currently, his research focuses on the biological control of invasive arthropods, specifically the importation of exotic insects as candidate biological control agents. Evaluation of resident natural enemies and assessment of commercial natural enemies are also conducted, along with studies on the biology of parasitoids and predators. Current projects target the cycad aulacaspis scale, the Mexican bromeliad weevil, and the Sri Lankan weevil. He also teaches undergraduate entomology and pest management courses.”

Ron will be discussing the ongoing efforts in Florida to import, propagate and raise a fly found to be a natural enemy of the Mexican weevil in the habitat of Central America. After several years, this approach to eradication of this weevil decimating both native and cultivated collections of bromeliads in Florida, has reached a critical phase in its implementation. Ron will bring us up to date on its progress and where our donations are being used.

BROMELIAD EXPOSE By Larry Giroux

Tillandsia cyanea and Her Big Sister - Tillandsia lindenii

I have a large basket of *Tillandsia cyanea* and a pot of *Tillandsia lindenii* and I do not have any problem distinguishing between them. Apparently though, from the time Linden first described *T. cyanea* in 1867 and Regel published his description of *T. lindenii* in 1868, taxonomists, the like of Morren, Duval, Dombrain, Mez, as well as Linden and Regel themselves have vacillated about which is which.

There is no doubt, that part of the confusion lies in the similarity of these two plants. Another factor, which may add to our misunderstanding of these two species is whether the identifications were based on living or herbarium specimens. Soon after Regel named *Tillandsia lindenii* (there's even confusion about whether or not the spelling is *lindenii*, *lindeniana*

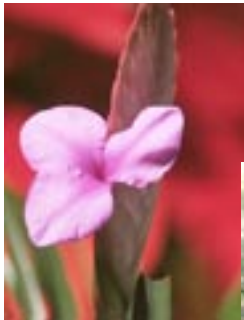
or *lindenii*), Morren acquired a collection of plants resembling *T. lindenii*, but with short scapes. Whether or not he knew about the description of *Tillandsia cyanea* by Linden in 1867 is unclear; nevertheless, he named these plants *Tillandsia lindenii*. Regel, possibly unfamiliar with the plant that Linden first described as *Tillandsia cyanea*, noted a significant difference between the plant he, Regel, had described and the one that Morren was giving the same name to, and he immediately re-named these plants *Tillandsia morreniana*.



Drawing by Morris Henry Hobbs of *Tillandsia lindenii* made for the cover of the BSI Journal. In the late 50's and early 60's, M.H. Hobbs provided nearly 20 drawings for the bi-monthly BSI publication.



Only 50 laser copies of this print were made for distribution and I do not recall any colored greeting cards made of this drawing. The detail and adherence to reality in this picture of *Tillandsia cyanea* epitomizes the great talents of its artist, Kiti Wenzel. The drawing demonstrates the differentiating characteristics between *C. cyanea* and *T. lindenii*, namely the lack of stripes in the distal portions of the leaves, the lack of a white throat of the flower, the elliptical inflorescence and the shorter scape.



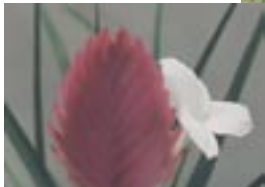
Tillandsia cyanea 'Pink'
Photo by Dorothy Berg



Tillandsia 'Tricolor'
Photo by Dorothy Berg



T. cyanea 'Variegata'
Photo by Shigeko Matsuse



Tillandsia cyanea 'White'
Photo by D. Berg



Tillandsia 'Sandy'
Photo by Herb Plever



Tillandsia 'Creation'
(*T. cyanea* Hyb.)
Photo by Moyna Prince



Tillandsia 'Triflor'
Photo by Moyna Prince



Tillandsia lindenii var. *caeca* (?)
Photo by Larry Giroux

It was sometime later that this mistake was noted, but by that time the name had been established in cultivation. Although you are unlikely to see this name used today, in literature the names *Tillandsia cyanea* and *Tillandsia morreniana* remain synonymous.

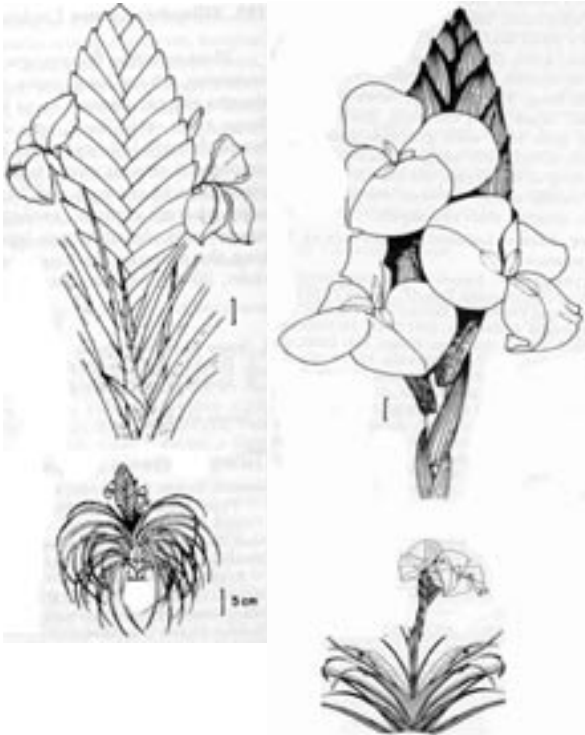
In the mid 20th century, a hybrid of *Tillandsia cyanea* and *Tillandsia lindenii*, called *T. 'Emilie'* was created by D. Barry. This new cross reportedly had the advantage of being a more robust and a more easily grown plant. How widely distributed in cultivation this plant became is unknown. Fortunately the majority of *Tillandsia cyanea* being raised for mass sale was occurring in Europe, where this hybrid presumably had not been established. In 1982, Cornelius Bak, the largest commercial grower of bromeliads in the world, added *Tillandsia cyanea* to their list of bromeliads they were mass producing for sale. It is likely that the "Bak stock" has infiltrated the U.S. market sufficiently to assure a relative pure line of the original *Tillandsia cyanea*. The next time that you go to a flea market, a grocery store or fruit stand where they're selling plants, check out the label on that tiny *Tillandsia cyanea* in bloom and see where it comes from.

Although these two plants are two distinct species, their similarities outweigh their differentiating characteristics. Both species are stemless with *T. cyanea* reaching a height of 25 to 30 cm (10-12 in.) and *T. lindenii* can exceed 40 cm (16 in.), each with their inflorescence. Other than the additional length for *Tillandsia lindenii*, the leaf blades for both are narrowly triangular, long tapered, about 1.5 cm wide at the base, dark green with red or brown stripes more prominent on the upper side at the base of each leaf, which tends to persist for the length of the leaf blade in *Tillandsia lindenii*



The BSI Journal cover drawing by M.H. Hobbs of the hybrid of *T. cyanea* and *T. lindenii* named *Tillandsia 'Emilie'*.

and solid on the undersides toward the proximal portion of the plant in both species. The scape bracts are nearly identical. They are similar to the



Pictured to the left are horticultural drawings, which demonstrate some of the more obvious differences between these two tillandsias. *T. cyanea* (left) has a more blunted, elliptical “paddle” shaped inflorescence and a shorter scape than *T. lindenii* (right). If you look closely, the artist has delineated the white throat of the flowers of *T. lindenii* var. *lindenii*. (From Smith and Downs, 1977.)

leaves, pointed, upright, slightly scaled and green with pencil like red stripes only seen in *Tillandsia lindenii*. The floral bracts are also much the same being tightly overlapping, elliptical, pointed, and longer than the sepals. The distinction here is again size with *T. cyanea* having 4-5 cm (1.6-2in.) long floral bracts with *T. lindenii* 's floral bracts approximately 5 cm (2in.) or greater. The floral bracts have the same width, but because of the shorter length the overall simple-spiked, sword-shaped inflorescence of *T. cyanea* appears to be more elliptical than that of *T. lindenii* , which is slightly lanceolate. Although the original descriptions given for the bracts of these two plants state they can be pink or green, it is my experience these color variations are sensitive to cultural differences with high light producing the more intense pink or rosy color.

The piece de resistance for both plants are their very unique and showy flowers. Unusually large for the their genus, the flowers are composed of three 2-3 cm long by 2-3 cm wide petals with stems 3-4 cms long. during the nearly 140 years since their description, the original dark blue assigned to the color of the petals is open for discussion. Today dark blue, purple, lavender, pink, white and many other shades of rose, purple and blue can

be found in both species. Although the distinct white throat of the flower is noted only in the description of *T. lindenii*, variations were soon found in nature of *T. cyanea* (var. *tricolor*) with a white throat and *T. lindenii* (var. *caeca*) with a solid blue flower.

Although it is agreed that these plants were first discovered growing as epiphytes in Ecuador and northern Peru from about 2000 to 3,500 ft. altitude, some reports indicate that plants in their habitat were very happy growing in the treetops exposed to high light as well as in the lower portions of humid tropical jungles. They have been found growing on rocks, in sandy soils and tolerating both low and high temperatures. Needless to say they have become well adapted to the myriad of growing conditions found in cultivation.

These tillandsias are unique in that they seem to prefer to be grown in a well-draining medium rather than epiphytically. Under these conditions they develop a significant root system, which appears to produce a more robust and prolific plant. My plants do very well in wooden slatted or open wire baskets lined with sphagnum moss and filled with an epiphytic mix. In this loose medium, they can tolerate frequent watering and extend their roots. Both time release and soluble fertilizer is appreciated. Remember to give your plants enough space to expand; it is not unusual for a single *Tillandsia cyanea* to produce 10 to 12 offsets. Even with the grocery store bought plants, there is still a chance by cutting off the spent inflorescence, providing a well-drained medium, moisture and fertilizer, you can continue to enjoy generations of these plants for years to come.

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Tillandsia by Paul T. Isley III. Botanical Press, Gardena, CA, 1987.

Blooming Bromeliads by Ulrich and Ursula Baensch. Tropic Beauty Publishers, Nassau, Bahamas, 1994.

Bromeliads by Andrew Steens, Timber Press, Portland, Oregon, 2003.

The Bromeliad Lexicon by Werner Rauh. Blandford, London, England, 1990.

Cultural Tips- Pup Removal

By Odean Head

(Editor's note: For as long as I can remember, Odean Head has been the Guru of bromeliad growing. His articles for decades have been reprinted from his home Society newsletter in the JBSI and local newsletters throughout the World. In preparation for our May Workshop, I encourage you to read this article reprinted from the Houston Bromeliad Society Newsletter, March 2005 (taken from the Newsletter of the BSGC, May 2006.)

All living plants have an estimated life, which can vary from less than one year to over 100 years. Most of the Bromeliads that we grow will live from three or four years up to about 10 years or more and includes, in most cases, blooming only one time (some are stubborn about blooming even one time). One of the neat qualities of bromeliads is that most of them will propagate themselves, through vegetative offsets (pups). This makes it easy for us to accumulate surpluses of our favorite plants for sharing, trading, selling, keeping or whatever pleases us the most. When the plants begin to pup we need to make some decisions about whether we want to remove them or not. If so, we need to know the best time to do it and how to do it.

DECISIONS NOT TO REMOVE PUPS

If you're not particularly interested in getting as many pups as we can from a mother plant we may want to consider the possibility of leaving the pups and allowing them to form a clump. Stoloniferous plants that have stolons long enough to allow the pups to form their normal shape can create a pleasing display. Most tillandsias form pleasing clumps even when the pups are not stoloniferous. I will usually wait about splitting mounted tillandsias until they get really crowded.

THE BEST TIME TO REMOVE PUPS

The most special plants in our collection rank the highest when it comes to propagation. The plant will normally make more pups when they are removed as soon as they can safely be removed. Some slow release fertilizer on the mother during its pupping cycle can also produce more pups and cause the pup to grow faster.

So, when is the best time to remove pups? Pups are large enough to be removed when they have root development or when they become one-third to one-half the size of the mother. If the goal is to mature the pup as fast as possible, leave it on the mother. Be sure that it has enough room to form its normal shape and enough light to prevent leggy growth. When propagation is the main objective, take the pups off as soon as they are of adequate size. The pups will not mature as fast but the mother will produce

many more pups. I prefer to let pup removal slide during the winter because it creates more pots to find a place for. We also experience some dormancy in our winters so by waiting until spring it gives our newly potted pups a faster start in their root development and growth. It also helps our survival rate of pups of marginal size since they will receive more protection from extreme cold while still attached to the mother.

There are a few guzmanias and vrieseas that will only put on one or two pups and they will form and come up through the middle of the mother plant. The small number of pups and the fact that the mother is pretty much destroyed when you harvest, you should allow the pups to be almost full-size before removing them.

PUP REMOVAL

Removing pups can be an easy task unless you have never done it before. I've given plants to many friends over the years who were not familiar with Bromeliads. In most cases they came back to me for instructions when it was time to remove pups. Some would even require that I show them before they had the nerve to try. The pup should be severed somewhere between the pup's roots and the mother plant. Usually it is best to cut as near the mother plant as possible on pups with little or no stolons. The pup may not have roots yet, just be sure that it is of sufficient size. Roots will form at the base of the plants (between the plant and the cortex/stem). Pups root easily when potted properly, which we will discuss another day. I used three different methods for removing pups. Most of the time I will use a pair of hand snippers when they are available and there is plenty of room between the pup and the mother to make the cut. Sometimes when I'm in the yard without the snippers and want to remove a pup I will place the thumb of one hand against the base of the mother plant and apply some side-to-side pressure on the pup with the other hand. Usually the pup will pop right off if the cortex is not too thick or hard. Be careful that you do not apply so much pressure that it breaks too close to the pup plant. When this happens you can increase your chances of saving the pup by dipping the break in a rooting hormone and letting it harden off before planting. There are times when the plant is so close to its mother that you cannot get to it with snippers and it does not respond to the hand method. In these cases you need a good sharp knife to cut it off. A serrated knife is usually more effective when a sawing motion is needed. More care should be given to removing pups that grow up through the center of the plant or up in the axils of upper leaves. Take a long knife with a sharp point and stick it down into the leaves until the point of the knife rests on the spot where the pup connects to the mother. Apply some pressure and with a little twisting motion try to pop the pup off. If it does not pop off after a few tries you may have to use the sawing motion to sever it. This procedure will also apply on many

of the large clumps of tillandsias. Cryptanthus pups that grow between the leaf axils on the top of the mother should be removed when of good size. A little side to side motion will cause these pups to release when they are ready. If they do not release easily, let them grow a little larger before you try again.

EVENTS CALENDER

June 6th - 11th, 2006

Bromeliads on the Border, 17th World Bromeliad Conference.
Town and Country Resort & Convention Center 500
Hotel Circle North, San Diego, California 92108, <http://www.towncountry.com>. You can register on the website
www.BSI.org

September 30, 2006

Florida Council of Bromeliad Societies' Bromeliad
Extravaganza
Presented by the Bromeliad Society of South Florida
Miccosukee Resort and Convention Center, Miami

Got something of interest?

If any of you have special events other members
would be interested in, please submit them to your
editor. Please provide by the 1st of the month,
prior to publication.

To All Our Members: Enjoy your hobby more
Join the Bromeliad Society International
for less than \$0.60 per week
Join the Cryptanthus Society
for less than \$0.40 per week
and as a first time subscriber the CBS will pay for
1/2 of the first year. So for \$0.50 per week you can get 2 great colorful
Journals and be part of the bigger picture.
See Betty Ann Prevatt for more information.

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Photos by Larry Giroux & Betty Ann Prevatt