

Scurf

Bromeliad Society of Broward County

October 2004



NEXT MEETING: MONDAY, OCTOBER 18TH, 2003, 7:30 P.M.

BROMELIAD SOCIETY OF BROWARD COUNTY'S

ANNUAL BROMELIAD AUCTION

CONDUCTED BY OUR OWN AUCTIONEER

MR. BILL FRAZEL

Plant sales will be **Closed** to members

NO PLANT RAFFLE this meeting!

We meet the third Monday of every month (except January)
at 7:30 p.m. in the Broward Agricultural Extension Building
3245 College Avenue, Davie, Florida

Calendar of Events for 2004-2005

October 18th, 2004 - Annual Bromeliad Auction

Bromeliad Society of Broward County's Annual Bromeliad auction conducted by auctioneer Bill Frazel held at the Broward Agricultural Extension Building. Preview plants at 7:00pm, auction begins promptly at 7:30pm.

October 23, 2004 - Extravaganza

Florida West Coast Bromeliad Society

PLANT SALE

The plant sale will be held at the Florida Botanical Gardens, located at 12175 125th Street North, Largo, Florida 33774. The sale hours are 9:00 am. - 4:00 pm., a holding area is available for purchased plants. There will be guided tours of the Gardens at 10:00 am, 12:00 pm, and 2:00 pm, for a fee of \$1.00 per person. Food vendors will be on site from 11:30 am, until 4:00 pm. For vendor/sales information contact Gary Lund 727-586-5865 or glund@tampabay.com

October 14-17 2005 - Bromeliads XIII - Australasian

Conference - The Bromeliad Society of Queensland Inc. is to host the next Australasian Conference for Bromeliads XIII in Brisbane in 2005. The Conference will be held over four days from Friday 14th October, to Monday 17th October, 2005, inclusive.

See <http://www.bsq.org.au/conference.html>



**The Presidents
Message**

Hello Bromeliad FANS,

It was great to see everyone at the last meeting. Time is moving very quickly. Our holiday party will soon be here and this year is going to be the best ever. You do not want to miss the good time at this one. Bromeliads and a ocean view.....it doesn't get any better than that. If you have any questions see Colleen at the meeting for details.

The next meeting is our annual plant auction with Bill Frazel as our auctioneer. Great deals, beautiful plants and a great way to increase your collection. Don't be late we will get started at 7:30.

Thanks to everyone who brought food to the last meeting. It was delicious. See you at the next meeting.

Tim

Holiday Party

December 11th, 2004

1:00pm Hors d' Oeuvres

1:30 Lunch and 1:31 Fun!!!!

This year our annual Holiday Party will be held at the Sea Watch, 6002 North Ocean Blvd, Ft Lauderdale, 954-781-2200.

We will be having a luncheon holiday party that will begin at 1:00 pm with hors d'oeuvres and lunch will follow promptly at 1:30pm.

For those of you who have not experienced the Sea Watch; it is a quaint ocean side restaurant with a nautical theme and a fantastic 2nd floor bar overlooking the Atlantic. We will also have the plant exchange (the rules are on the next page)we will start with Hors D' Oeuvres and you will have the choice of the following.....

Entrees

Fresh Florida Red Snapper (Hot)

Grilled Orange Roughy (Hot)

Breast of Chicken (Hot)

Fresh Blackened Dolphin Salad (Cold)

Dessert

Warm Godiva Chocolate Torte

Tickets for the luncheon will be \$20.00, however if you donate 5 plants to the auction you will receive a \$2.00 discount, your ticket will then be \$18.00.

Bill Frzel will be collecting the money and the

Deadline is December 1st

Rules for the Holiday Plant Exchange

To participate your plant must be clean and free of scale, one that you would like to receive yourself as a gift. Put it in a paper bag so that it cannot be seen and bring it to the party. When you arrive at the party you will be given a number (only if you have brought a plant) so you can participate in the drawing, which works like this....

- 1) The numbers are drawn one at a time, randomly.
- 2) The first number drawn selects from **ALL** plants on the table removed from the bag and shown to the group.
- 3) The next number drawn has the option of selecting an unopened bag from the table **OR "TAKING"** the plant previously selected. If the previously selected plant is **"TAKEN"** then that person then selects another **UNOPENED** plant from the table.
- 4) The last number called gets to pick from **ALL** previously selected plants **except** from anyone that has had their plant taken twice. **The EXCEPTION:** No one can have more than **2** plants taken from them, you get to keep the **3rd**.

Happy Exchange



Name TRG Winner - Chuck Nicholls-
Billbergia Tres" bien



Bonus Plant Winner - Ed Layton
Orthophytum VRGRMS

Mr. Bill Frazel thankfully filling in and giving us
an in prompt to program. Lee Moore, who was suppose
to speak, was unable to make it due to the hurricanes.



Bill will be our auctioneer for our annual
bromeliad plant auction.
It can be quite a buying frenzy, it's a lot of
fun !! If you've never attended one of these
meetings, don't miss the auction!!!!!!!
Donate 5 plants and get a discount on your
Holiday Party ticket.

Vampires, Tillandsias... Things That Go Suck in The Night

By Andrew Flower (Anwyl Bromeliads)

[This description of bromeliad biology (and in particular Crassulacean Acid Metabolism - CAM) resulted from a discussion of the pros and cons of watering Tillandsias at night. --ED]

One school of thought suggests that it does no harm to water Tillandsias at night. This gives them many hours to absorb the water before the demands of the hot sunny days begin. Ostensibly, this 'suggestion' is contrary to the oft-quoted advice to water Tillandsias in the early morning, or late afternoon provided they are dry by nightfall. So I think it is worthwhile commenting on this a bit further, since taken at face value such contrary advice can be confusing. As it happens, both pieces of advice are correct in particular circumstances.

The question of watering xeric Tillandsias involves considering two of the primary requirements of plant life: carbon dioxide and water. The CAM business relates to the different way Tillandsias (and some other plants) actively take up carbon dioxide. A 'standard' plant model, like most of your terrestrial types, takes in carbon dioxide through its leaves during the daylight and uses energy from sunlight to convert the carbon dioxide into a solid form of stored energy, mainly starches.

The huge problem with this process is the fact that as soon as a plant opens up the pores (stomata) in its leaves to pull in carbon dioxide from the air, during the day, water vapor rushes out through the pores. This is bad news if you are a little Tillandsia sitting on a twig with no way to replenish the lost water through your roots, and on a hot day you would lose so much moisture you would just burn up and die. So 'air' Tillandsias were only able to evolve because of a different carbon dioxide-absorbing system, namely 'CAM' respiration. The CAM plants do not take up carbon dioxide during the day, they wait until night.

At night they lose FAR less moisture when they open their stomata, because the ability of the air to suck moisture out is much less (this is a function of the lower temperature and higher humidity - expressed as 'VPD' or the vapor pressure deficit of the air - which I won't go into here... (sighs of relief...))

So think of your Tillandsia as a little night vampire, sitting there sucking carbon dioxide out of the night air. Throwing water on it at night has a similar affect to throwing sunlight on old Dracula. Because when the water-absorbing scales on the Tillandsia's leaves get wet, they flatten down and cover their stomata and the little chap is effectively suffocated.

Some people have heard (or even read) that bromeliads cannot stay wet for more than 24 hours. I think the real point is that Tillandsias cannot stay wet for 24 hours of the day on a continuing basis, ad-infinitum. Why not? Because they die of carbon dioxide starvation, for one thing. I have an airtight plastic box into which I put Tillandsias, and measure the carbon dioxide content of the air with an analyzer. When you put dry CAM Tillandsias in the box, the carbon dioxide content of the air decreases during the night, as you would expect from the theory that they are absorbing carbon dioxide during the night. And during the day, the carbon dioxide content of the air in the container INCREASES, which you may not expect. What this indicates to me is that the Tillandsia is continually LOSING carbon dioxide, day and night, at a small rate (consistent from what you would expect from osmosis as the concentration of carbon dioxide inside the plant's cells is greater than it is in the atmosphere).

So the Tillandsia as a living form is continually 'leaking' carbon dioxide, but during the night while it is actively taking up carbon dioxide, considerably more carbon dioxide comes in than goes out. In one experiment, I soaked a number of Tillandsias in water for a couple of hours so they were well saturated, then put them in the plastic airtight box. During the night, the carbon dioxide content of the air INCREASED, during the day the carbon dioxide content in the air again increased, and so on for several days.

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So apparently the plants were just losing carbon dioxide continuously, and if left in this state they would presumably reach a point when the carbon dioxide concentration inside the plant cells was the same as the concentration in the air - not enough to sustain the plant. Getting back to cultivation. The standard advice I give is to water your Tillandsias in the early morning, allowing them a couple of hours at least to absorb water before the air temperatures start rising and drying the plants. This avoids the problems you will get if the plants are wet during the night when there are lower temperatures and higher humidity, hence little drying effect. There are going to be times when you have hot night temperatures and lower relative humidity (hence higher VPD) and then you can water the plants at night knowing they will have some time to stay wet, but there is still sufficient drying capacity in the air to get them dry.

This story also tends to accommodate the situation others observed in nature where xeric Tillandsias receive water from a night mist that apparently comes down mid-way through the night. This early-morning wetting is going to still leave a period during the night hours when the plants are dry, thereby able to entrap carbon dioxide.

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Happy
Halloween



Reminders

October Birthdays bring goodies!

Happy Birthday to.....

SARA DONRYE
JOSEFA LEON
STEVE SMITH
DAVID TUTTLE

Thank You

To all those that have been helping clean up our
meeting room

Announcement

Tim and Colleen have a new address & home
phone number
21 Holly Lane Plantation, FL 33317
954-530-0076

On the Cover

Achmea Smithorium

Grown by : Bud Hendrix
Photo by : Tim Hendrix