



THE BROMELIAD BLADE

Newsletter of the San Diego Bromeliad Society

Volume L, Number 12

December 2015

December Meeting

The December meeting will be our annual holiday gathering of members featuring a pot-luck luncheon and gift exchange (see article). Bring a dish to share. As usual, SDBS will furnish the main course and drinks. The gift exchange is always interesting. We can purchase a gift or, in wanting to keep out of the commercialism of the season, we can always bring a nice plant from our collection. Wrap gifts to ensure a surprise.

After the meeting would be a great opportunity to drop by the Balboa Park Botanical Building (lath house) to see it all decked out for the holidays. I dropped by last week to try and shoot a photo or two for the newsletter only to find:



I guess we'll have to drop by again to see the filled pots that will create the magic of the season! ☐

The President's Corner

by Robert Kopfstein

The year 2015 marked the San Diego Bromeliad Society's fiftieth year as an organization. When we were founded, BSI had been in existence for only fifteen years.

In the half century that the SDBS has been around there have been many changes in the world of bromeliads. Early on, one of our major hurdles was educating the public in general about the plants themselves; most people had little to no exposure to the bromeliad family. All too often you could hear someone ask "What is a bromel-aid?" There were several bromeliad nurseries in the San Diego region, but for the most part they were small, and they catered to a limited clientele.

Today there are even fewer bromeliad nurseries. The ones that do, thrive: Olive Hill, Kent's, Rainforest generally cater to the wholesale trade. Birdrock Tropicals supplements the bromeliad offerings with orchids. Overall, making a living selling only bromeliads is a challenge and in general the smaller retail outlets have to diversify if they are going to survive financially.

Over the years the SDBS has strived to pique the public's interest in bromeliads. There are no hard data in general, but it appears that bromeliads are becoming more visible and popular. Along with the orchids and house plants they are now common in supermarkets and big box stores; hotels and malls are using bromeliads as part of their interiorscapes, and last year's SD County Fair's horticultural exhibits used more bromeliads than ever in the displays—and we too entered an exhibit for the first time, winning several awards.

All of this is good news for the SDBS, but we still have much to do.

Twice before (in 1994 and again in 2004) the SDBS hosted a BSI world conference in San Diego. We have committed again to host the 2018 conference. This presents us with a big challenge; world conferences require a lot of work. But with many volun-

Holiday Tree

By Al Evans

Dave Kennedy, Pam Peters, Bob Vitacco, Robert Walters and myself were the participants in the tree decorating party. Thanks to Kent's Bromeliad nursery for their donation of plants and continued support.



The results:



See it at the Holiday Gathering and get an opportunity to take it home with you. ☐

teers the tasks are not great. And a world conference will give us a chance to promote bromeliads to the people of San Diego and the environs.

In 2016 we again will enter an exhibit at the county fair. This year our entry will be both larger and more visible—we were assigned a premium spot because the fair administration was so pleased with our 2015 entry. More than 1.2 million people pass through the horticultural exhibits at the fair, the most visited spot on the fairgrounds (perhaps it helps that the wine bar is nearby . . .).

And again in 2016 we will stage our annual show and sale in Balboa Park. We put on the only standard BSI show in California, a fact that we all should be proud of. Our shows have done much to raise the awareness of the public for bromeliads, and the shows ought to be one of our best devices to attract new members.

It is membership that keeps the SDBS vibrant. No matter what we do, be it sales, shows, world conferences, our ultimate goal should be to attract more bromeliad enthusiasts to the club.

We have got a good thing going, so why not share the joy?

☐

Gift Exchange

By Robert Kopfstein

As you all know already, the month of December is the gift buying and giving season. The buying of course is designed to keep the U. S. economy afloat, and if it is successful, it often gives the buyers a chance to purchase something completely unneeded by the recipient. (Remember when you were a kid and your great-aunt Clara always bought you socks? Bummer.)

So our annual SDBS gift exchange gives you a chance both to give and receive.

This year we are printing the guidelines in our Newsletter in order to avoid having to do it at the meeting (when—after eating—no one is listening anyway).

Here's how it works:

You buy a plant-related gift that costs between \$10 and \$15.

Important! You wrap it so that what is inside is concealed.

You bring it to the meeting and, after dinner, all the gifts are put in the center of a circle of chairs upon which we all will sit, staring at the pile of goodies.

Each person will receive a ticket with a number on it followed by a random drawing of the other half of the tickets with the corre-

Editor's Notes

This is my last edition of the Blade. I have enjoyed putting the newsletter together for the last year and certainly appreciate all the contributions both text and photographic that came across my desk. Contributions by members are the major portion of making an interesting newsletter with many points of view.

To me, one of the major parts of a society is the newsletter. It is the glue that helps hold the society together by keeping us informed about the happenings in the society, interesting bits about our plants, information about members' gardens, and an occasional bit of humor.

The digital age has allowed us to include almost unlimited color photos at good resolution that have been taken by members. Now we can easily see what others have in bloom even if they can't bring the plant in to the meeting. We can also have better illustrated articles to help with getting the message across to the reader. We may be better at reading the pictures than the text.

The position of editor will be taken over by Juliana Reposo. Let's support her with our contributions of information and photos that will fit into her (undoubtable) new format and content. Best of luck to Juliana and her new endeavor.

sponding numbers, the same procedure as in our opportunity table drawings.

When your number is called you may choose any gift in the pile—except of course if your number is the last one called, at which point it is a case of Hobson's Choice. Do not open the gift.

Ah, but despair not . . .

When everyone has a gift, the numbers will be called one last time.

At this point when your number is called you may choose to keep the gift you already have or you may exchange your gift with the gift of anyone else in the circle. Now is not the time for reticence or shyness. Now is your chance to be a grinch.

After all the numbers are called, then everyone can open their presents—and hope that great Aunt Clara has not attended the meeting.

And as a quick reminder, if you don't like eating with plastic utensils, feel free to bring your own forks, spoons and knives. You might also consider bringing your own plate, and perhaps we can reduce the mountain of garbage that we seem to generate every year.

November Meeting

MEMBERSHIP MEETING MINUTES

November 14, 2015

The meeting was called to order at 10:10 a.m. in Balboa Park, Casa del Prado Botanical Library, Room 104.

Election of Officers

Andy Siekkinen acted as Elections Chair in Andrew Wilson's absence. He asked for nominations from the floor for President, Vice President, Secretary, and Treasurer. Since there were no other nominations, the following were elected unanimously by membership vote:

President:	Robert Kopfstein
Vice President:	David Kennedy
Secretary:	Ruth Contino
Treasurer:	Al Evans, Jr.

There is an open seat for one director position. Dave Kennedy moved and Robert Vitacco seconded the nomination of Mary Whittemore for Director. The motion passed.

BSI World Conference

The following was received from Martha Goode, BSI Affiliates Chair.

Please share this letter with your Society's members.

TO: All BSI Affiliates;

If you have not registered for WBC 2016, time is running out to take advantage of the current registration fee. There is a form on the web site and in the journal, please join us in Houston for Bromeliads Texas Style. In addition, take a look at the revised Schedule of Events and make your travel plans to attend all the functions.

It's time to consider making a donation to WBC 2016. The success of a conference relies on the generosity of both affiliates and members. Consider sponsoring an event or donating to the general fund, all donations are appreciated. Please advise Allyn Pearlman, treasurer, at deliboys@comcast.net of your intent to donate. All donations will be recognized in the conference program.

The BSI Speakers Fund is a permanent part of our organizational endeavors to bring quality speakers to BSI events. Donations to the Speakers Fund should be sent to Ben Klugh, BSI treasurer. Requests for funding from the Speakers Fund must be made to the BSI Board of Directors.

The Houston Bromeliad Society is working to plan an entertaining and educational conference. Please show them that you appreciate all that they are doing.

If your society is interested in hosting WBC 2018, please put your intentions in writing as soon as possible.

Hope to see all of you in Houston -

Bonnie Boutwell, Vice President
Bromeliad Society International

The 2016 officers and board are:

President: Robert Kopfstein
Vice President: David Kennedy
Secretary: Ruth Contino
Treasurer: Al Evans, Jr.
Newsletter Editor: Juliana Raposo
Director: Lucia Velazquez
Director: Robert Walters
Director: Scott Sandel
Director: Mary Whittemore

Bylaws

It was moved and seconded to approve the changes to the Bylaws as attached to the October and November 2015 newsletters. The motion passed.

Ruth Contino
2015 Secretary

Show and Tell Plants:

Aechmea ramosa 'Festiva'Bob Wright
Billbergia hybridAndy Siekkinen
Pitcairnia 'Kim Wright'Bob Wright
Portea 'Candy'Robert Kopfstein
Tillandsia ?Lorraine Cypher
Tillandsia chiapensis hybridDavid Kennedy
Tillandsia heteromorpha 'rope type'Nancy Groves
Tillandsia raackiiDavid Kennedy
Vriesea rauhiiSteve Salley
xNeomea 'San Diego'Robert Kopfstein

The Program

Bruce Holst, Director of Botany at Selby Botanical Gardens in Sarasota, FL, enlightened us with his presentation on one of the cenotes in Belize. The trip into the sink hole (cenote) revealed the plants life found there. The photos were amazing as was the presentation itself. ☐

Meetings

Meetings are held at 10 AM on the second Saturday of each month at Balboa Park, Casa Del Prado, Room 104.

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Bromeliads and Aquariums

by Al Evans, 2009

What do bromeliads and aquariums have in common?



The need for quality water!!

I have been involved with bromeliads for only a few years now, but I have maintained aquariums since I was 9 years old. Over the preceding 15 years or so, I have become much more interested in the planted aquarium than the fish usually associated with tropical aquariums. Although this trend towards planted tanks has been slow in the US, planted aquariums have been important in Europe for many years. The problem in San Diego is our tap water is not well suited for planted aquariums. The answer, ...a reverse osmosis system that produces high quality, soft water from tap water with a slightly acidic PH. This lower PH along with the waste from tropical fish can cause a very low PH in the aquarium over time (RO water is not well buffered) which can be detrimental to the plants and deadly to the fish. The solution is to change a portion of the water regularly. But what to do with the discarded aquarium water with a PH sometimes lower than 6.0 (pretty acidic!)? On a visit to an orchid nursery in Thailand where all the orchids are grown hydroponically, I found that the water they use has a PH around 5.0. I also found in reading that many bromeliads appreciate a soft water with low PH. It turns out the two interests, bromeliads and tropical fish aquariums, are complimentary. I no longer miss aquarium water changes which has sometimes had bad results in the past (loss of fish!) because I need a steady supply of the discarded water for the bromeliads and orchids. Since discovering that I could use my discarded

SDBS 2015

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Web Page

www.bsi.org/webpages/san_diego.html

The Bromeliad Blade

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Items for publication are welcomed and should be received by the editor by the 25th of the preceding month.

aquarium water as a source of water for bromeliads, my aquarium maintenance has improved dramatically, with aquarium water changes being much more consistent. Both the aquarium plants/fish and the bromeliads seem to be benefitting. I use the low PH water almost daily (during the warm summer months) on most of my potted bromeliads (except Crypts) and Tillandsias in particular. I use a 3 gallon sprayer to dispense the water. Sometimes, I also add a dilute (1/4 strength) fertilizer to the water. I use urea free orchid food (20-10-20) or "epiphyte delight". So far, the results have been encouraging and the Neoregelias and Tillandsias appear to be thriving. ☐

UPCOMING EVENTS

WHEN	WHAT, WHERE
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HIGHLIGHTED MEETINGS

December 12, 2015 at 10:00 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 Holiday Party, details in the December Blade www.bsi.org/webpages/san_diego.html
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January 9, 2016 at 10:00 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 Our own Pam Peterson on Brazil www.bsi.org/webpages/san_diego.html
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June 13-19, 2016	Bromeliad Society International World Conference Houston, Texas
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MONTHLY MEETINGS

1 st Tuesday, 6:30 PM	San Diego Orchid Society Balboa Park, Casa del Prado, Room 101 www.sdorchids.com
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2 nd Saturday, 10 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 www.bsi.org/webpages/san_diego.html
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2 nd Saturday, 1PM	San Diego Cactus and Succulent Society Balboa Park, Casa del Prado, Room 101 www.sdcss.net
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2 nd Monday, 5 PM	San Diego Horticultural Society Surfside Race Place at the Del Mar Fairgrounds www.sandiegohorticulturalsociety.org
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Cultivation Thoughts

By Dan Kinnard; Photos by Dan Kinnard

Making it though the winter

Although we are fortunate here in Southern California to have a mild and not too wildly fluctuating climate, there comes a time during the year when we have to give special attention to those truly tropical plants. For us, that means bringing the tender and I-will-die-if-I'm-both-cold-and-wet ones in to share our living quarters for a while. Every year we say that we're not going bring them in and they just have to fend for themselves but, in the end, they wind up occupying a three or four foot strip around three sides of the house. Yes, things do get a bit cozy until they are kicked out in the spring when the temperatures are warmer and the rains have mostly gone away for the year.

Usually, we bring in one or two of each of the tender plants and leave the others outside. Surprisingly, most of the time those left outside make it through the winter with just a setback from the cold and rain. Even the ones that are brought in suffer some since we can't keep the humidity in the house up when the heat is on. Spraying them is just not the same as higher humidity.

Those inside a set in "boot trays" that we order from the internet. These are trays to hold snowy, muddy boots that are apparently left inside by the door in less friendly climates for one's outdoor footwear. We maintain about ½ in. water in the trays to help keep the humidity up around the plants but not enough to make the soil wet. Since our soil mix is mainly lava rock, we don't have problems with the water wicking up and keeping the roots too wet. It is surprising how much water one has to add every day or two to maintain the ½ in.

Sometimes we are rewarded by unexpected behavior of the plants while they are indoors. Like the *Aechmea mertensii* (right) that is coming into bloom The cryptanthus always are happy to be warm and add a bit of texture to the crowded scene. Enjoy your winter vacation guys. Spring is coming soon and you'll be back in the shade house where you belong.

□



Contributed by Steve Salley

"Human vanity can best be served by a reminder that whatever his accomplishments, his sophistication, his artistic pretension, man owes his very existence to a six inch layer of topsoil and the fact that it rains." - Anonymous.

Couldn't Show and Tell

From Scott Sandel:

Billbergia 'Pink Champagne'



Guzmania sanguinea (below) and one of Arden's bi-generics *xVrieslandsia* (*Vriesea ensiformis* X *vagans*) X *Tillandsia multicaulis*. (left)



From Robert Kopfstein:

Here is a bromelia from Mexico (no species name) that was too wicked to bring in to show.



Here is a photo of the *Portea* 'Candy' that I brought for show and tell in November. One month later, the inflorescence is still fresh.



From Eloise Lau / Dan Kinnard:

A group of unidentified *Tillandsias* from Oaxaca coming into bloom.



Pitcairnia flammea x *smithbiorum*
Not the easiest of plants for us to bring into bloom.



And from our friends down under:

I haven't verified this, but it sounds legitimate:

A recent study found that women who carry a little extra weight live longer than the men who mention it.

Companions to Our Plants

by Andrew Wilson; photos by Andrew Wilson

After a Rain Shower

Bromeliads, many of them epiphytes, are good companions to a wide range of trees and cacti. However, their companionships are not limited to plants. Some people enjoy the company of dogs as well as that of other people. The same type of preference also occurs with bromeliads. We've all heard about plants that make room for ants to live aboard and provide protection from attack by predators. Both the defending live-in ants and the defended landlord benefit from the association, the term for which is myrmecophily. I was thinking about these friendships recently while cleaning up some vrieseas and neoregelias. There had been a rain shower and the tree frogs were going crazy. Were the bromeliads housing the frogs? Indeed so, for on approaching a noisy specimen the tree frog within would go silent briefly before resuming its contribution to the choral cacophony.

It is well known that tree frogs find tank bromeliads very desirable places within which to take up residence. They obtain a reliable source of moisture in the tanks, receive protection from birds within the cavities and, who knows, maybe the walls enhance their vocal output. Do the bromeli-

ads get anything in return? According to researchers in Brazil the answer is affirmative (*Oecologia* 2010 Apr;162(4):941-92009). Frogs enhance the nitrogen uptake of tank bromeliads through their feces and the remains of insects they consumed. One type of bromeliad tree frog, *Bromeliobyla bromeliacia*, shelters in bromeliads during the day and the females lay their eggs in water pools at the base of individual leaves. So, a real benefit for both the tank bromeliad and tree frog does exist.

While considering how excellent it was that bromeliads from Brazil had struck up companionship with our Pacific tree frogs I spotted a reddish one hiding deep inside a vriesea. This is unusual as the normal color is green. However, scientists in Oregon and Washington have seen them change color, usually from green to brown. The transformation there may take months and results from the change of overall background brightness that, in forests, is set by time of year. In San Diego the frog had found an attractive home in the well-lit interior of *Vriesea gigantea* 'Nova'. Its neighbors, when I could locate them in the darker interiors of nearby tall billbergias and deep red neoregelias, were green. It did not show the brilliant orange and yellow of the frogs I had once seen and heard years before in the Monteverde cloud forests of Costa Rica, where many tank bromeliads thrive. However, its appearance proved that similar companionships could be struck up far from the natural range either frog or bromeliad. More significant, the relationship had developed from one of mutual acceptability to one where adaptation was involved.



Normal color of the Pacific tree frog (*Pseudacris regilla*)



Red color of tree frog inhabiting *Vriesea gigantea* 'Nova'. Image by author.

The tank bromeliads, including *Neoregelia*, *Billbergia*, *Vriesea* and *Aechmea* species, make good companion plants for tree frogs in both tropical and temperate climates. From very limited observations, smaller ones such as *Neoregelia ampullacea* and larger ones such as *Aechmea distacantha* do not seem to be favored by our tree frog.

Flushing the tanks is occasionally necessary to remove a heavy buildup of debris but if you want the frogs to hang around, it should not be done frequently. Frogs spawn, in cool winter conditions requires three weeks to take life and longer before tadpoles start jumping. A standing pool at the base of leaves is where spawn is deposited. Allowing time for breakdown of debris also ensures that our alkaline water is neutralized or acidified, which then hastens delivery of nitrogen to the plant.

Strange companions? Perhaps, but do you know who your real friends are?



Patience

A little patience is a good thing. A lot of patience is required sometimes by our bromeliads. The plant below, an unidentified *Tillandsia*, was procured as a nearly full-sized plant and only 14 years later, it rewarded us with this bloom. Patience may not only be a virtue but also necessary when dealing with some bromeliads.



And for the last page:

It's a good thing that we don't have too much of this:

THE DEADLY FACTS ABOUT WATER!

FACT!

WATER CAN BE CHEMICALLY
SYNTHESIZED BY BURNING
ROCKET FUEL!!!

FACT!

OVER CONSUMPTION CAN CAUSE
EXCESSIVE SWEATING, URINATION,
AND EVEN DEATH!!!

FACT!

100%
OF ALL SERIAL KILLERS,
RAPIST AND DRUG DEALERS HAVE
ADMITTED TO DRINKING WATER!!!



FACT!

WATER ONE OF THE PRIMARY INGREDIENTS
IN HERBICIDES AND PESTICIDES!!!

FACT!

WATER IS THE LEADING
CAUSE OF DROWNING!!!

FACT!

**100 PERCENT OF ALL PEOPLE
EXPOSED TO WATER WILL DIE!**