



# THE BROMELIAD BLADE

Newsletter of the San Diego Bromeliad Society

Volume L, Number 2

February 2015

## Editor's Notes

Our February speaker will be George Allaria, a long-time bromeliad collector and grower. See details about his talk on page 2 and meeting details on page 6.

Included this month are articles by Andrew Wilson on Winter Color and by Scott Sandel on his recent trip to Mexico's Yucatan area. The companion plants this month are oncidium orchids. Andy Siekkinen has a report on his research project on page 11. □

## March Meeting

The March talk will deal with plants of the Huntington Botanic Garden. It will include showing the wide range of large terrestrial bromeliads, puyas, deuterocohnias and dyckias grown there and describing the history of the Desert Garden, where the plantings began almost a century ago. □

**SPRING IS HERE.  
I'M SO EXCITED  
I WET MY PLANTS.**

## The President's Corner

by Robert Kopfstein

Consider This:

Numerous studies by universities have demonstrated that being involved in gardening and the plant world is good for your health; furthermore gardening increases your life span significantly.

What exactly does potting, weeding, and arranging your plants do for you? Some of the advantages are apparent. By being in the garden you receive healthy doses of vitamin D. Obviously the bending, stooping, lifting is good exercise. Gardening is also a creative act that stimulates the brain and sometimes challenges the intellect. (What is wrong with this plant? Why can other people grow cryptanthus and I am a miserable failure?)

But there are other proven benefits to gardening which have been uncovered by researchers.

Contact with dirt is good for your immune system. The bacteria in soil stimulates your natural defenses against disease. So get rid of the gloves. Just don't lick your fingers after fertilizing.

Gardening reduces stress. When you focus on your plants you tend to clear your mind of all the trivial problems that you probably should not have allowed in your life in the first place.

According to Earthing: The Most Important Discovery Ever, touching the earth with your bare hands "grounds" your body so that the positive electrons that you accumulate in your daily life from exposure to low level radiation can be dissipated. (On this one my eyebrows went up on the title alone. But who can say?)

University of Arkansas researchers have discovered that regular gardening tasks help reduce diabetes—exercise processes blood sugar—heart disease, osteoporosis, stress, and weight gain.

A Texas A & M study found that gardeners had more optimism, resolution and joie de vivre. (Apparently some of the gardeners I know need to get out in the garden more often.)

## January Meeting

The program at our January meeting was on Professor Werner Rauh given by Pam Koide Hyatt. We learned about the, as Pam says, godfather of bromeliads. This prolific explorer and plant collector certainly kept busy: published 300 articles (100 for BSI Journal); discovered or described some 1200 genera, species, and varieties of plants; gathered a library of field and travel notes, and photographs, that are now housed at the University of Heidelberg in an incredible database that can be accessed at: <http://wrhp.hip.uni-heidelberg.de> then click on "read more" to access the information..Some knowledge of the German Language is helpful. See photos from the meeting on page 12. □

## February Meeting

by George Allaria

My wife Jean and her girlfriend attended a Bromeliad Show in the early 80's and signed us up for a membership in the South Bay Bromeliad Associates. We have been active members ever since.

I will be trying to tie together an assortment of bromeliad topics including suggestions and helpful hints on obtaining, hybridizing, growing, and caring for bromeliads based on my 30+ year addiction to them.

I will also be revealing for the first time the secret of the peculiar growth habit of *Dyckia estevesii*. A sample of which will be on the opportunity table along with the plants use in my talk to make a wide variety of plants to please almost everyone. □

In sum, it is a real plus when you discover that what you really enjoy doing is not deleterious to your health.

Our program for February should be a good one. George has been a bromeliophile for many years, and his plant collection is stunning: the plant table is bound to be interesting.

Remember to bring a friend to the meeting. See you there. □

## Wintertime Color

by Andrew Wilson

photos by Andrew Wilson

We had a long, hot summer last year with fewer cooling breezes from the ocean to keep the humidity levels in a range acceptable for our plants, not to speak of ourselves. Later, in October and November, flowering was been reduced below what we normally expect for that time of year. Fall color was muted with a few tillandsias (such as *T. stricta*, *T. cyanea* or *T. purpurea*) in bloom but not much else. Fortunately, some gentle rains came in December without strong winds or chilling temperatures. They refreshed the neoregelias, vrieseas, hohlenbergias, aechmeas and billbergias and it is the foliage colors of those plants that now dominate the garden and the plant benches. So, on these darker days of winter it seems appropriate to avert attention from the inflorescence features that usually get featured on these pages and focus on the foliage instead.

With the sun lower in the sky, light can strike plants growing under trees to expose shades not often seen in summer. An example of this is the low-growing *Nidularium atalaiensis*.



In summer it needs some shade as it will not tolerate our direct summer sun but in winter its colors are best displayed when exposed to full sun.

Some aechmeas make great winter plants. Here is *Ae. penduliflora* x *blanchetiana* with a surprising color range in its foliage.

## Show and Tell

### Plant

### Brought by

*Aechmea* 'Aeres'

Bob Wright

*Aechmea orlandiana*

Scott Sandal

*Aechmea recurvata* 'Candy Corn'

Pam Peters

*Aechmea tayoensis*

David Kennedy

*Billbergia* 'Catherine Wilson'

Scott Sandal

*Billbergia* (unknown species)

Lucia Velazquez

*Deutercobnia abstrusa x longipetala*

Andy Siekkinen

*Orthophytum sanctum*

Robert Kopfstein

*Orthophytum* 'Iron Ore'

Robert Kopfstein

*Orthophytum lemei*

Robert Kopfstein

*Tillandsia abriza*

David Kennedy

*Tillandsia exserta*

Jim Wright

*Tillandsia fasciculata*

Monica Mroz

*xCryptbergia* [now *xBiltanthus*]  
*rubra* 'Red Burst'

Tim Panzl

Please fill out an information Form for each plant and leave it on the display table after the meeting. A little research could reveal interesting facts to share about your plant and also will indicate the correct spelling of the name.



Another aechmea, unnamed but with some similarity to *Ae. rubrolilacina* when in bloom, is shown below. It should not be grown in full sun in summer as the sun will bleach its colors but at this time of year the sun heightens them. So you must find a way to realize this arrangement.



We cannot leave out some mention of tillandsias. They are mostly quiescent at this time of year but a few, such as *Tillandsia* 'Eric Knobloch', began the spring blooming session with strong coloration around the inflorescence sites. This behavior comes from one of its parents, *T. concolor*.



Our flower shows do not occur at this time of year and the public never sees these off-season appearances. In this climate that is a pity. □

## Library Notes

by Eloise Lau

We have two new additions to the library:

**Flora of the Venezuelan Guayana, volume 1 Introduction** and **volume 3 Araliaceae-Cactaceae** from the 9 volume set.

Those of you who were fortunate enough to be present at our July 2014 meeting will remember the talk Cristy Brenner gave last summer on her adventures hiking to the top of Roraima Tepui in Venezuela. These books will give you a better understanding of the area and the bromeliads that grow there.

Volume 1 of the set gives an overview of the area known as the Guayana Shield which include the table mountains known as tepuis. Volume 3, pages 548-678, contain the section on Bromeliaceae. Twenty two genera are described with numerous species in each genera found in the area. There are taxonomic descriptions for each family and genus. For species habit, habitat, elevation range and locality data are given. Numerous beautifully rendered black and white botanical drawings are included. A scientific treatise that will appeal to the serious student of the Bromeliaceae--especially one planning a trip to the area.

Additionally, a set of **Tilli Cards** from Bird Rock Tropicals is now available for checkout. Per Bird Rock Tropicals: ***Cards are color coded by basic type of care instructions-Intermediate, Mesic or Xeric. Each card contains a brief description of the plant and tips on growing and cultivating. They are designed to help you learn about tillandsias, where they grow and how to take care of them.*** ☐

## John Arden

With great reluctance John Arden has decided that he can no longer maintain his extensive bromeliad collection. He is looking for someone who would be willing to purchase the collection in its entirety. He hopes to find someone who is willing to carry on his work by growing out his seedlings and caring for the collection as a whole. There will be no sale of individual plants.

Please contact John, by email only, if you are seriously interested in the project. His email address is: [JArden3881@aol.com](mailto:JArden3881@aol.com) ☐

## Companion Plants

by Andrew Wilson

photos by Andrew Wilson

Bromeliads are companions not only for us, but for insects, birds and other plants where they grow, from the sea-level Everglades of Florida to mountain peaks of Peru. Except in rare places they are not found growing alone and in our gardens their beauty is enhanced if grown with compatible companions. This month we pick the *Oncidium* orchids as suitable companions.

*Oncidiums* occur all through central America from southern Mexico to Nicaragua and in South America, from Brazil to Ecuador. With that enormous range in countries with varied climates it is not surprising to find some that grow well in San Diego. They occur in nature often in the neighborhood of epiphytic bromeliads, usually in forest regions in conditions of light to moderate shade. It's little wonder then that they make good companion plants for tillandsias, many of which accept similar growing conditions.



Full view of plant growing together with a young *T. incarnata*

There are dozens of species that could fit the bill but here is one that is well known and not difficult to grow, *Oncidium* 'Gower Ramsey'. This winter it came into bloom in mid-December, following the rains we finally got earlier in the month. It should continue to hold its bloom for several months, typically from late December to as late as March.

In the photos it is shown under a light tree canopy together with tillandsias, *T. x nidus*, *T.*

## SDBS 2015

### Meetings

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

### Officers

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'Eric Knobloch', *T. incarnata* and Spanish moss [*T. usneoides*]. It remains there all year, under the same conditions of shade and watering (once or twice per week in midsummer, little or none in midwinter except when Santa Ana winds blow). Unlike the tillandsias it gets an annual feeding of slow-release fertilizer. For both tillandsias and orchids, faster growth would result from more watering and more feeding. Of course, that would result in the need for more frequent splitting of the clump. That's what happens with companions - take your pick! ☐



*Oncidium 'Gower Ramsey' with T. 'Eric Knobloch'*

### Last Minute Item - Nat DeLeon

Nat DeLeon passed on January 28, 2014. Nat started in bromeliads in the 1950s and was an Honorary Trustee of the Bromeliad Society International. He will be missed. There is an article in the Journal of the Bromeliad Society International, Vol 59(3), 126-131 that can be accessed through [bsi.org](http://bsi.org) through Recent Journals. ☐

### Time to renew your membership for 2015

It's that time again. Please give the Treasurer your renewal at the January meeting or mail it to: Al Evans, 2601 Palace Drive, San Diego, Ca 92123.

Renewal amounts:	1 year	2 years
single email	13.00	22.00
dual email	17.00	30.00
single USPS	28.00	52.00
dual USPS	32.00	60.00

Please receive your newsletter by email, if at all possible. The email version will have additional information and photos than the printed one.

## SDBS 2015

### Board Members

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**Nancy Groves (2014-2015)**

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### Web Page

[www.bsi.org/webpages/  
san\\_diego.html](http://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.

### UPCOMING EVENTS

WHEN	WHAT, WHERE
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#### HIGHLIGHTED MEETINGS

February 14, 2015 at 10:00 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 Program: George Allaria on Building a Bromeliad Collection <a href="http://www.bsi.org/webpages/san_diego.html">www.bsi.org/webpages/san_diego.html</a>
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March 14, 2015 at 10:00 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 Program: Bromeliads at the Huntington <a href="http://www.bsi.org/webpages/san_diego.html">www.bsi.org/webpages/san_diego.html</a>
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April 11, 2015 at 10:00 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 Program: Betty Patterson on Bromeliads in Ecuador <a href="http://www.bsi.org/webpages/san_diego.html">www.bsi.org/webpages/san_diego.html</a>
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April 16-19, 2015	BROMSMATTA 18 <sup>th</sup> Australian Bromeliad Conference at The Novotel Parramatta, Sydney, Australia <a href="http://www.bromeliad.org.au">www.bromeliad.org.au</a>
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June 13-19, 2016	Bromeliad Society International World Conference Houston, Texas
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#### MONTHLY MEETINGS

1 <sup>st</sup> Tuesday, 6:30 PM	San Diego Orchid Society Balboa Park, Casa del Prado, Room 101 <a href="http://www.sdorchids.com">www.sdorchids.com</a>
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2 <sup>nd</sup> Saturday, 10 AM	San Diego Bromeliad Society Balboa Park, Casa del Prado, Room 104 <a href="http://www.bsi.org/webpages/san_diego.html">www.bsi.org/webpages/san_diego.html</a>
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2 <sup>nd</sup> Saturday, 1PM	San Diego Cactus and Succulent Society Balboa Park, Casa del Prado, Room 101 <a href="http://www.sdcss.net">www.sdcss.net</a>
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2 <sup>nd</sup> Monday, 5 PM	San Diego Horticultural Society Surfside Race Place at the Del Mar Fairgrounds <a href="http://www.sandiegohorticulturalsociety.org">www.sandiegohorticulturalsociety.org</a>
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## Couldn't Show and Tell

### *Tillandsia viridiflora* variegated

by David Kennedy photos by David Kennedy

I wasn't sure if this plant would flower because it's mid-winter but lo and behold, the first stunning yellow elongated flower appeared Jan.15th! I bought it 1 1/2 years ago at the Bromeliad Bash at Quail Gardens



### *Billbergia kautskyana*

by Dan Kinnard; photos by Dan Kinnard

This is the first time we have bloomed *Billbergia kautskyana*. Of course it was only in bloom for a couple of days when there was no meeting. At least we can all enjoy the photos of it.



## Bromeliads in the Yucatan

by Scott Sandel

photos by Scott Sandel

We traveled to the Mexico's Yucatan on Thanksgiving and spent 11 days visiting Mayan sites and checking out the western side of the peninsula. We started in Merida and traveled south, nearly to the border with Guatemala. Then we went west to Campeche on the Gulf Coast before returning to Merida. The main focus of the trip was to see the great city/site of Uxmal and to see the Puuc and Rio Bec styles of Mayan architecture at smaller sites nearby. And along the way of course, we enjoyed seeing several species of Tillandsias and a few other bromeliads.

November is the beginning of the dry season, so it was not so humid. On the downside, the Tillandsias weren't generally in bloom. An exception was *Tillandsia fasciculata*, which has second bloom season in fall, which I read in Ivón Ramírez-Morillo's book on Yucatan bromeliads. This website has helpful information and photos: [http://www.cicy.mx/sitios/Flora%20Digital/indice\\_tax\\_especies.php?genero=Tillandsia](http://www.cicy.mx/sitios/Flora%20Digital/indice_tax_especies.php?genero=Tillandsia)

Other species that we saw in the tillandsia genus were *T. balbisiana*, *T. brachycaulos*, *T. bulbosa*, *T. juncea*, *T. schiedeana* and *T. utriculata*. As is always the case, many of the plants were observed both in the trees and fallen along the trail. How many fallen Tillandsias will fit in a carry-on, one wonders.



Aside from the Tillandsias, we saw *Aechmea bracteata* at many of the sites we visited. With their prominent spines, they are intimidating plants. At many of the archaeological sites, the staff plant *A. bracteata* as ornaments. An interested study of the relationship between *A. bracteata* and the tree frogs in Yucatan is



*Tillandsia brachycaulos*

from the journal Contemporary Herpetology is at: <http://www.cnah.org/ch/ch/2003/1/>. More climatic information influences may be found at: [http://tropicalconservationscience.mongabay.com/content/v6/TCS-2013\\_Vol\\_6\(2\)\\_283-302\\_Cach-Perez\\_et\\_al.pdf](http://tropicalconservationscience.mongabay.com/content/v6/TCS-2013_Vol_6(2)_283-302_Cach-Perez_et_al.pdf)

Two other spiny plants we saw in southern Campeche State were *Bromelia pinguin* and *Hechtia schotii* – both terrestrials. The bromelia was growing in semi-open forest, while the hechtia was growing in the open, on rocky soil that had quite a lot of limestone exposed. Finding the hechteas was a highlight of the trip, as they didn't seem to be very widespread. □



*Tillandsia balbisiana*



*Tillandsia juncea*



*Aechmea bracteata*



*Aechmea bracteata*



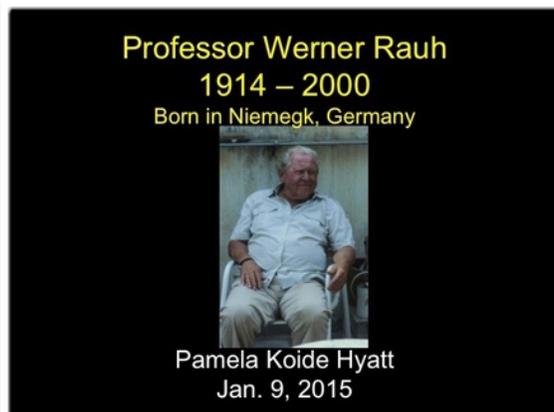
*Bromelia pinguin*



*Hechtia schotii*

## Professor Werner Rauh

photos from Pam Koide Hyatt



## Expeditions



Argentina – 1983, 1986 (324 collections)	Israel – 1973 (1000 collections)
Brazil – 1973, 1975, 1981, 1986, 1989 (1,914 coll.)	Mexico – 1966, 1967, 1971, 1974, 1979, 1980 (3,081 collections)
Chile – 1976, 1984 (355 collections)	Namibia – 1979, 1982 (778 collections)
Colombia – 1975 (514 collections)	Panama - 1977, 1982, 1984 (776 collections )
Guatemala – 1975, 1977, 1989 (511 collections)	Peru- 1954, 1956, 1967, 1970, 1971, 1973, 1975, 1976, 1980, 1983, 1984, 1988 (8,890 collections)
Ecuador- 1954, 1973, 1975, 1980, 1983 (3,353 collections)	Switzerland – 1994
Kenya- 1960, 1963, 1969 (1203 collections)	South Africa – 1961, 1963, 1979, 1982 (5235 coll)
Madagascar- 1959, 1960, 1961, 1963, 1969, 1987, 1990, 1992, 1993, 1994 (7,262 collections)	Yemen - 1964

## Hechtia Genetic Research Update

by Andy Siekkinen

Over the past several years I have been researching the genus *Hechtia*. Around two years ago I started research in the lab of Dr. Michael Simpson at SDSU. While developing this project, a proposal submitted to the SDDBS Board was approved. A smaller amount was received from the SD C&SS and two private donors. DNA extraction began in the summer of 2014 and the samples were sent out for analysis in the fall. The raw data were received in early November. Since then, I have been working long hours at the computers with that data: sorting, doing quality control, and running many different analyses.

The preliminary results have been very good and I submitted an abstract to give an oral presentation at the First World Congress on Bromeliaceae Evolution ([www.bromeyo.net](http://www.bromeyo.net)), nicknamed BromEvo. This is a very exciting event where nearly all academic researchers around the world studying any aspect of the bromeliads will meet, present, and discuss the research. It includes genetic research in figuring out evolutionary history (like my project), population genetics, conservation, reproductive biology, new species, and much more. The abstract was accepted and, at the March Congress in Brazil, both my results and a presentation for the Bromeliad Society International will be given. The research will probably be completed and submitted for publication this summer. Descriptions of the results can then be written for the newsletter. I would like to thank SDDBS for supporting research. □

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# January Meeting Photos

photos by: Dan Kinnard, Dave Kennedy,  
Pam Koide Hyatt

