

BROMELIAD SOCIETY OF

SAN FRANCISCO

JANUARY 2018



Meeting Specifics

When: Thursday, January 18

Time: 07:30 PM

Recreation Room

Where: San Francisco County Fair
Building
9th Avenue at Lincoln Way
San Francisco



Costa Rica with Ben Harink

Ben will be talking about a three-week trip he made to Costa Rica. This was a family vacation, but Ben did get a lot of time to actually spend in nature and look for plants, and also came across many bromeliads. His talk will focus on these, but as there have been many other interesting plant and wildlife encounters, he will include these as well. Costa Rica is an easily accessible country, and seeing plants and animals has been easier than in most countries that Ben has visited so far.

Ben Harink has been fascinated by plants and animals since childhood and had already assembled a good-sized collection of tillandsias while still a youth in Germany. Ben later began rearing insects as a hobby while living there. He has traveled extensively and lived in several other countries in the past, including Switzerland and India. Ben has been a resident of the San Francisco Bay Area for the past four years where he developed an interest in growing bromeliads from seed, especially species of Tillandsia and Pitcairnia.

Roger Lane has signed up for refreshments this month. All other contributions will be appreciated.

Tillandsia monadelpha, *Tillandsia xiphioides*, *Billbergia horrida* v. *tigrina*



Take Time to Smell the Bromeliads

Some of the bromeliads make sure that you know they have a fragrance; others are more subtle. There are those whose aroma is stronger in the daytime – sometimes choosing AM or PM hours – others who prefer to tantalize you in the evening hours. Color of flowers does not seem to be a factor; they can be yellow, white, green or blue.

Tillandsia usneoides has a pale green flower that can be difficult to distinguish among the foliage, but if you are anywhere in the area around the middle of the day, your nose can lead you unerringly to the source. *Tillandsia cyanea* has clones with large cerulean flowers that emit a delightful spicy aroma. It is not a potent odor and you miss it if you don't check with your nose. I have found that not all clones have a fragrance, or else it was so faint that I couldn't detect it.

T. crocata has small yellow flowers that remind me of an expensive perfume. If it is grown in an enclosed area, a few flowers will perfume the air.

T. mallemonitii is amazing! This tiny plant should be allowed to become a clump and the aromatic blue flowers will seem to appear almost throughout the year. The fragrance is much stronger in the late afternoon.

T. caerulea and *T. humilis* must not be forgotten – they won't allow it. They are both delightful. *T. nuptialis* and *T. monadelpha* have white flowers. Their fragrance is only slight, but is more noticeable in the early evening.

T. cacticola is very perverse (I used to think that if there is no fragrance, that was one of the identifying features). There are only random clones with a fragrance. I have five clones and only one has ever had an aroma.

All the *T. xiphioides* I have seen have had white flowers; however in "Flora Neotropica, Monograph No 14", Lyman Smith and Robert Downs, it states the flowers can be either white or violet. This is a great plant. The silvery foliage is pretty and the beautiful white flowers with an aroma are a welcome bonus. This one beckons with its odor from some distance.

T. streptocarpa and *T. duratii* could never be ignored. Their fragrance is strongest during the day, but they will emit an odor in the evening. Their lavender flowers even seem to retain some of the odor after they have wilted.

Billbergia horrida is one of the elite. It does not have an outstanding aroma – not offensive, but rather bland. Some have compared it to the odor of Ivory Soap.

Some of the vrieseas with white flowers that usually flower at night have a fragrance. I haven't found one that really intrigued me, but I would guess it is Mother Nature's way of notifying the proper pollinators that the flower is ready for pollinating.

There is a small *Catopsis* with a yellow flower that has one of the most captivating fragrances I have found. It has absolutely no odor during the day, but it is delightful in the evening. I suspect there may be other *Catopsis* with a fragrance, but I just haven't caught them at the right time.

[This article is reprinted from the September 2012 newsletter of the Houston Bromeliad Society]

xAndrolaechmea

The genus *Androlepis* is a somewhat unique Bromeliad genus. At the current time there are only two species included in this genus. One of these species, *Androlepis skinneri*, which is native to Southern Mexico and the countries of the central portion of Central America, is dioecious. This makes it one of the few Bromeliad species that has the male and female reproductive structures on separate plants. This unusual arrangement therefore requires separate male and female plants blooming at the same time and in close proximity for the natural vectors to pollinate the female flower in order to produce fertile seeds.

Maybe it was the lack of both a male and female plants in the hybridizer's garden that encouraged the creation of the first bigeneric using *Androlepis skinneri*. Dutrie described this cross xAndrolaechmea Crateriformis in the first third of the 20th Century. Although it is described as a large vase shaped plant with an inflorescence resembling its pollen plant *Aechmea fasciata*, but redder, there are no photos or drawings I could find to confirm its appearance.

Chester Skotak recreated the cross using *Aechmea fasciata* as the seed plant and *Androlepis skinneri* as the pollen plant at his Costa Rican nursery about 60 years later (see photo). This hybrid was named by Chester- xAndrolaechmea 'Leonard Skinnard'. (If you get the chance Google or ask Chester about this name, you might get a good laugh about the origin of names.)

During the next twenty years, only about five other bigenerics were registered. Below are photographs of these hybrids with details included within their captions.

Many thanks are given to the Florida Council Bromeliad Societies' and the BSI's Bromeliad Cultivar Registry websites for the information and photographs within this article.



Androlepis skinneri (male)



Androlepis skinneri (female)



Androlaechmea 'Leonard Skinnard'



Androlaechmea 'Dean'



xAndrolaechmea 'Cyclops' photo by M Michalski

□ *Androlaechmea* 'Cyclops'

Androlaechmea 'O'Rourke'



This article by Larry Giroux is reprinted from the May-June newsletter of the Caloosahatchee Bromeliad Society.

What is a World Bromeliad Conference?

Fun for everyone is what it is! Some people have the idea that a World Bromeliad Conference is for officers, directors, judges and “experts”. Wrong. It is a biennial three-day bromeliad extravaganza for anyone who likes bromeliads.

To get the most possible enjoyment from a conference, it is advisable to register, stay at the conference hotel, arrive a day or two early and stay over a day or two. Unfortunately, not everyone can attain the optimum and fortunately, it is not necessary. One may attend as much or as little of the conference as one can manage. Full registration is a package deal and covers all regularly scheduled events, but if you can be at the conference only one day and wish to attend one or two events that day, arrangements can usually be made - ask! If you are in the vicinity for reasons and can only drop by to see the plants and purchase one or two, it would be silly not to take advantage of the opportunity and just as silly to register for the full conference. Staying at the conference hotel puts one “on the scene”, doesn’t use precious time traveling to and fro, and puts one’s bed at hand when one’s legs refuse to go anywhere else, but it is not a requirement.

The judged show at a World Bromeliad Conference is a ballroom chock full of meticulously groomed bromeliad specimens, intricate society displays, and bromeliad arts and crafts. It takes a good hour for a quick once over and many hours if you want to really look at all the exhibits, take pictures, ask questions, or take notes.

The plant sales area is a bromeliad shopper’s heaven. A wide variety of bromeliads is available in a wide range of prices and usually includes some hard-to-find bromeliads as well as some new releases.

The programs and speakers cover a variety of bromeliad topics and sometimes include hands-on workshops. They range from pure entertainment to serious education for everyone.

Tours of local bromeliad gardens and nurseries are usually offered at several different times which allows more freedom of choice in activities and makes the tour groups a more manageable size. The tours are a good opportunity to meet new people, see how others grow and use bromeliads, and gather cultural tips and ideas.

The rare plant auction is another treat. There are always a few prize plants that go at bargain prices that even a tight budget can withstand *that is, provided the budget has survived the plant sales at this point). If you feel extravagant or are a big spender, you may bid on some of the rare beauties offered. Or, you may simply attend to enjoy the excitement, see the plants, and make out your wish list.

Conference banquets vary, but are always festive dinners where the tables are bedecked with bromeliads, awards are presented, and entertainment provided.

There are also pre- and post-conference activities for those who come early or stay over. It is a good idea to plan an extra day or two anyway as the conference city always holds a few “must do while here” attractions which simply cannot be fit into the overall schedule of conference days.

My one complaint is that there are too many “must do” activities at a World Conference. I invariably underestimate my time and overestimate my physical capacity.

When making out my schedule to squeeze in all the “must do” activities, I forget to allow time for eating, sleeping, getting from here to there, program over-runs and late starts and conversations with old friends, new friends, and strangers. I leave the conference exhausted, disgusted that I missed so much, thrilled at all I managed to work in, fussing over new plants acquired (that I don’t have room for) and looking forward to the next World Bromeliad Conference.

[This article by Kit Hilburs, editor of THE OFFSET, December 1987, Journal of the Atlanta, GA Bromeliad Society, sums up what takes place at a Bromeliad Conference very well. It was in a recent issue of our newsletter, but is reprinted to encourage your attendance at this year’s conference in San Diego: May 29 - June 3 For info go to bsi.org]

Root Rot and Heart Rot

Bromeliads are not subject to many pests and diseases but heart rot and root rot can cause considerable losses. The same organism, *Phytophthora cinnamomi*, depending on the origin of the attack, causes these two conditions. This organism is a fungus with swimming spores, which thrive, in oxygen deficient conditions. The spores have a long survival time estimated at 12-15 years! It is highly invasive particularly when some form of mechanical damage has occurred. The mode of dispersal is not known but contaminated surface water is a possibility; and rainwater has been suspected.

The fungus is a normal inhabitant of some soils; particularly those, which are waterlogged, or otherwise, have oxygen deficient conditions. In a normal well-aerated soil or compost, any *phytophtherais* are kept in check by a parasitic fungus: *Trichoderma*. *Trichoderma* thrives only under well-aerated conditions, so that any tendency to waterlogging or compost breakdown kills off the natural enemy of *phytophthera* and allows its proliferation. This can lead to root rot and its associated problems. Any transfer of this material into the crown of another plant may lead to invasion of the white tissue and subsequent top rot.

The organism is widely spread in soils where it has caused appreciable losses in avocado plantations attacking the roots. It is also reported as a problem in durian, oak, cotton, and cacao trees and numerous ornamental shrubs in other parts of the world; and it is a problem in Queensland pineapple fields. I have a copy of a newspaper article from the 1890's that describes in recognizable detail crown rot in pineapples at Nundah. The fungus gets its specific name from the cinnamon tree. The organism, previously unnamed, was identified as the cause of substantial losses in cinnamon tree plantations in Java about 1915.

Bromeliads infected by heart rot may not show obvious symptoms until the problem is well advanced. A quick test is to gently wriggle one of the center leaves. Worst case; the leaf is easily removed. The infection is readily identified, as it has a foul odor and the leaves show a characteristic blue/black line marking the advance of the infection in the white tissue. This is not to be confused with fertilizer burn, which usually appears as a scorched line, or spot on the leaf with sound tissue below the burn area. However, fertilizer burn might provide the means of entry into the tissue by the fungus.

The pineapple industry has developed a simple 'baiting' test for detecting *phytophthera* in soil and water, and is suitable for screening potting mixtures. The procedure depends on the ready attack by the organism on the white tissue at the base of a bromeliad leaf. The original test used a young leaf from a pineapple top; but any **immature** bromeliad leaf with about 20 mm of white basal tissue is satisfactory.

Fill a glass jar to about 100 mm with the water to be tested and place the test leaf in the water so that about 25 mm of the leaf is submerged. Use a thin skewer or wire to pin the leaf at the required depth. Allow to stand for 10 days. *Phytophthera* is indicated by the development on the white tissue of a blue/black line of attack and a foul smell. A less invasive organism, *Pythium*. Is indicated by a cotton wool like growth around the leaf.

For soil or potting mixture, boil and cool some water. Place 3 or 4 teaspoons of soil or potting mixture in the bottom of a glass jar and gently pour in the boiled and cooled water without stirring. Set the leaf so that the tissue is 30-35 mm above the soil. Incubate as above.

Bromeliad plants that are infected with heart rot can sometimes be saved if the invasion is not too advanced. The best procedure is to remove as much of the affected tissue as possible back to white tissue. Treat with fungicide and allow the damaged tissue to dry and callous over. A serviceable fungicide for this purpose can be made from two parts slaked lime (calcium hydroxide, not agricultural lime) and one part sulphur.

Root rot is an indication of a poor quality or broken down potting mixture that has become anaerobic. The best response here is to remove the plant from the pot and trim off all dead roots. Check the basal stem to see if the infection has proceeded. Carefully trim off any rotted areas back to sound tissue. Dust the cut surfaces with fungicide and allow to dry. If you have caught the problem in time, you may get some new roots; or you may have to rely on offset development.

[This article by Peter Paroz is reprinted from the Bromeliad Society of Queensland website, www.bromsqueensland.com]

The BSSF is a non-profit educational organization promoting the study and cultivation of bromeliads. The BSSF meets monthly on the 3rd Thursday at 7:30 PM in the Recreation Room of the San Francisco County Fair Building, 9th Avenue at Lincoln Way, Golden Gate Park, San Francisco. Meetings feature educational lectures and displays of plants. Go to sfbromeliad.org for information about our meetings.

The BSSF publishes a monthly newsletter that comes with the membership. Annual dues are single (\$15), dual (\$20). To join the BSSF, mail your name(s), address, telephone number, e-mail address, and check payable to the BSSF to: Harold Charns, BSSF Treasurer, 255 States Street, San Francisco, CA 94114-1405.

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Cyrtanthes 'Ruby Star' photo by L. Giroux

BROMELIAD SOCIETY INTERNATIONAL

The Bromeliad Society International publishes the Journal bimonthly at Orlando, Florida. Subscription price (in U.S. \$) is included in the 12-month membership dues. Please address all membership and subscription correspondence to Membership Secretary Annette Dominquez, 8117 Shenandoah Dr., Austin, TX 78753-5734, U.S.A. or go to www.bsi.org.

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