BROMELIAD SOCIETY OF SAN FRANCISCO

October 2012

NEWSLETTER

Our next meeting will be held on **Thursday, October 18, 2012** at 7:30 PM
Recreation Room, San Francisco County Fair Building, 9th Avenue at Lincoln Way, Golden Gate Park, San Francisco

October Program

Bromeliads from Oaxaca and Cuba

This month **Kelly Griffin** will be visiting us again. . His talk will cover a trip to Oaxaca he made this year as well as some slides from a trip to Cuba. Although we often get shows on Oaxaca, I don't think we have ever had a show that addressed bromeliads in Cuba. Kelly currently works as plant development manager for a well known company, Altman Plants based in Vista, California. .He is also charged with finding and creating new and different plants that can be utilized in garden settings. Kelly's hybrid aloes are well known in the industry and are collected by enthusiasts.

Kelly has a degree from UCSD in Applied Physics, but his love for plants has led to many trips around the world to explore plants. Kelly has also led many expeditions including South Africa, Madagascar, Yemen, Socotra, Argentina, Chile, Bolivia, Mexico, and Peru.

In addition to our regular plant raffle, Kelly probably will be bringing plants to sell, so remember to bring your checkbook.

Kelly Griffin is posing beside a large cycad – probably in Madagascar.

October Refreshments

Marilyn Moyer and **Peder Samuelsen** signed up for refreshments this month.

September Meeting

Last month **Terrie Bert** visited us from Sarasota, Florida. Her technical talk was an exploration of why some bromeliad genera have one or very few species while other genera have many species. She gave this same talk to the attendees at the World Bromeliad Conference in Orlando. At the end of this presentation, there was quite a discussion among Terrie, **Dennis Westler**, and **Ted Kipping** about her conclusions. Thanks Terrie for a thought provoking meeting!

Terrie brought many wonderful new bromeliads for sale at very reasonable prices – there was quite a buying frenzy before the meeting. For those plants that she did not sell, our society purchased them for inclusion at our future plant raffles.

Frogs in Hawaii

This article by Martha Goode is reprinted from the February/March 2008 newsletter of the Bromeliad Society of Greater Chicago. There is a reference to a person many of our members know.

While we were visiting **David Shiighi** in Hawaii, he called his friend **Dennis Heckart** to see if we could visit him. Dennis is with David's band and also has done some hybridizing for him. We drove from Hilo to Pagoa which is a short distance to see Dennis' wonderful collection.

While we were there we saw a frog in one of Dennis' neoregelias that we had heard at the airport. The frog is a Eleutherodactylus also known as the coqui. It was introduced from Puerto Rico. Its name comes from the loud noise it makes: "Ko-Kee". It begins singing at sunset and continues until dawn. We asked the employee at the rental car agency at the airport in Hilo, what the noise was and she told us that it was the coqui frog. She said she runs her fans at night so she didn't have to hear the loud sound.

Here is what the Coqui looks like – not the most attractive frog.

The Coqui does not pass through a tadpole stage. The female Coqui deposits the fertilized eggs in a humid place on land. The male Coqui forces the female away and guards the eggs. They take from 17-27 days to develop. The froglets hatch directly from the egg and don't become tadpoles.

Growing Bromeliads on the Wet Side of the Big Island of Hawaii

This article by Dennis Heckart is reprinted from the February/March 2008 newsletter of the Bromeliad Society of Greater Chicago..

I have been growing bromeliads for the past four years on a third of an acre near the town of Pahoa. When I moved in, it looked like a jungle with waist-high weeds and no formal garden to speak of. Once the weeds were under control, I put up a small shade house in the back. For sun loving bromeliads, I constructed raised beds along the fence with lava rocks and filled them with cinder. For shade loving plants, I did the same in a shaded mound area with tall lychee trees.

Originally, I just had a few of my Vrieseas and tillandsias and alcantareas from my years of hybridizing in California. I then started importing plants from California and Florida. Then, a chance meeting during a local garden tour brought me in contact with David Shiigi of Bromeliads Hawaii. I had met David before on a visit in 2002 with a palm friend. I had sent him some of my hybrids and he had sent me some of his. After visiting his nursery again it was not long before I was working part time potting cuttings in exchange for plants. I now grow plants for him at one of his nurseries in a business venture.

Billbergia 'Alii' photo by D Heckart

This is one of the hybrids that **Dennis** has made since moving to Hawaii. Photo is courtesy of the Florida Council of Bromeliad Societies.

Hawaii is filled with microclimates. You are wet or dry depending on whether you are windward or leeward. For the windward sides, rainfall will increase with altitude and the temperature will drop. I had decided before I purchased my house that I had not come to Hawaii to be cold and wet. My property is around 600 feet and the coldest temperature I have recorded was 61 degrees Fahrenheit, with approximately 100 inches of rain. There is very little soil to speak of. It is mostly lava rock or cinder.

Basically, there are two different ways of growing bromeliads here: vertically or horizontally. You could also say epiphytically or in pots or on the ground. All work very well, depending on the species. At first, I grew the tillandsias on plaques and hung them on a wire mesh attached to two sides of the shade house. Dry-growing tillandsias must be given protection from the rain. I grow them under the eaves of the house. Most of the rest resided in pots in the shade house. It was not long before I was doing hybrids again. Billbergias were my first attempt and then tillandsias and Vrieseas. This created a predictable glut of seed I couldn't plant in the usual covered clear plastic box.

Billbergia 'Kahakai' photo by D Heckart

Billbergia 'Kahakai' photo by D Heckart

Here is another **Dennis Heckart** billbergia hybrid with flower. Photo is courtesy of the Florida Council of Bromeliad Societies.

Tillandsias in particular have always been slow for me, so I simply started spaying the extra seed on to tree and palm trunks along with thousands of extra Vriesea seed. It has proven a great success. Other than the initial spraying on the seeds to trunks, very little is done except for an occasional foliar feeding. An unforeseen hazard developed in the vertical application when I acquired a small kitten named Scarlett. Scarlett's passion is to climb any vertical surface she finds, particularly if I am present. That said, a lot of re-attachment has been necessary.

On the outside of the fence, I planted alcantareas, Orthophytums, Dyckias, and billbergias directly in the ground. The plants had perfect drainage with the cinder. With a little organic matter and fertilizer added they did very well. Inside the fence I kept plants in pots simply because I wanted to move them around. Aechmeas, billbergias, hohenbergias, and alcantareas have thrived in pots. The Dyckias in pots grew so fast it has been difficult to keep up. In the shaded understory areas Guzmanias and Vrieseas look great. I am always moving neoregelias around to find the best light for them, some direct sun, but not all day. With lots of extra seed, there are now aechmea and billbergia seed also growing directly on to vertical trunks. Scarlett should be less likely to knock off something that can "bite back".

I am fortunate to have a hobby that I can now indulge in, now that I am retired. Time seems to go faster instead of slower as I get older. It is something my sister-in-law Linda used to tell me. I now understand that if you are doing something you enjoy, there is never enough time.

A Modest Start in Aquaculture

This article is reprinted from Bromeliana (Volume XV, Number 2), newsletter of the New York Bromeliad Society.

Last May a dozen or so members of the New York Bromeliad Society (NYBS) began their first attempts at growing bromeliads in water. The immediate stimulus for this modest experiment was a report of some success in bromel hydroponics by the New England Bromeliad Society. (They, in turn, were influenced to try the experiment based on the October 1975 Bromeliana articles on hydroponics by Kathy Dorr).

The NYBS project was loosely organized without proper controls, goals, or guidelines. It was not, in fact, taken seriously by our skeptical membership. The general feeling was that if too wet a bromel mix could rot a plant, using water as a medium could only increase that danger.

The experience thus far, however, indicates that there is little or no danger that aquaculture will kill or even harm our plants. After six to eight months, none of the plants have rotted out.

The plants used were all unrooted or barely rooted pups grown in water-filled containers. The pups were stabilized and weighted down in a variety of ways: pebbles, broken crock, fine gravel and perlite, charcoal and perlite, etc. One plant, a Neoregelia Catherin Wilson, is doing well wedged in a block of tree fern placed in a water jardinière.

The roots formed in water appear to be different than those formed in a solid mixture – the former being very fuzzy, thick, flat and soft in contrast to the hard, smooth, cylindrical roots in a solid mix. No doubt the roots formed in water have made a special adaptation to better absorb oxygen from the water.

Fertilizing was performed randomly or not at all. We are therefore unable to hazard a conclusion as to the effectiveness of fertilizers until a controlled experiment is conducted. One would suspect, however, that very dilute, weekly fertilizing of plants grown in good light will produce better color and compactness.

All participants are agreed that:

1. rooting develops more rapidly and is more extensive in water than in the usual bromel mix
2. the plants will grow no worse than in the standard mix and may do better.

Species of the aechmeas, billbergias, Guzmanias, neoregelias, nidulariums and Vrieseas were used. There appears to be no marked differences among these genera in their reaction to aquaculture. (A *Nidularium innocentii* var. *innocentii*, grown in water, appeared to have acquired far brighter color and robustness than an equivalent pup in a dry mix next to it.)

It is time for us to try to organize a more carefully controlled test using two or more pups of the same clone and of approximately equal size under ‘a’ and ‘b’ contrasting conditions. Thus, for example, two such offsets could be grown side by side – one in water and one in a standard medium; or both in water, side by side, but only one fertilized.

The inflorescences of many Vrieseas and some Guzmanias are usually coated with a sticky glue which pastes the bracts and flowers together, preventing them from opening. It would be interesting to ascertain if aquaculture for these plants would facilitate the opening of the sticky flowers and bracts.

And following the inflorescence would the pups on such plants unwhorl their leaves more easily when grown in water?

Increasing oxygenation of the water is another area worth investigating. Thus, the control pup can be started in a pebble and water container and next to it, a similar offset can be started in a tank with a tropical fish aerator – or in a container loaded with perlite (perhaps tending to hold oxygen as it dries and releasing it when it is moistened.

The above test should also be tried with Cryptanthus (which is usually grown best in a mix containing some amount of potting soil) and tillandsias (which are generally mounted epiphytically or are grown in a porous dry mix).

As we learn more about bromeliads, we may have to change much of the old and traditional thinking about their culture.

Tillandsia hamaleana

This article by **Dan Arcos** is reprinted from the May 1980 newsletter of the Bromeliad Study Group of Northern California.

Having taken the photo of this tillandsia, [not included in this newsletter – Ed.] I can honestly say that it does not do it justice, for the beauty and charm of this plant are far greater than can be conveyed here. A smallish plant, *T. hamaleana* measures about 30-40 cm high and about 30 cm across in a crisp apple green rosette. Its leaves and leaf sheaths are about 40 cm long and 8-9 cm wide. Yet what makes this tillandsia so desirable is its inflorescence. Compound with 3-4 almost black spikes and floral bracts, 6-8 flowers are borne on each spike. The flowers, heavenly blue, hide its stamen and pistil in the white throat of its spreading petals. Gradually fading, the petals will get a lilac cast.

According to Rauh, *T. hamaleana* like *T. dyerana*, an Ecuadorian cousin, is fragrant. However, try as I did morning, noon, and night, I never detected its perfume.

For many growers, sometimes myself, this has proven to be a difficult plant to grow in Northern California. This is largely due to the notion that it is a heat lover. True, it is found at sea level but upon further investigation I discovered that it was also found by collectors at altitudes of 2,000 meters and 2,600 meters in Ecuador and Northern Peru. These altitudes may be warm at the equator but they also get cold, especially in the damp and shady habitats described by Rauh.

It is this information that many of us need to grow this plant better: medium light, moist, well-drained soil, plenty of air circulation, and its tolerance and possible preference for a cooler environment. Sounds easy!

Tillandsia hamaleana photo is courtesy of the Florida Council of Bromeliad "Societies.

WBC 2012

The World Bromeliad Conference, held in Orlando, Florida, is now over. Our society was very well represented at this conference: **Dan Arcos, Nick Soumie, Casper Curto, Wes Schilling, Roger Lane,** and **Peter Wan.** We will have an article about the conference in next month's newsletter.

BROMELIAD SOCIETY OF SAN FRANCISCO (BSSF)
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 the affiliate section of the BSI webpage 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 made payable to the BSSF to:
Harold Charns, BSSF Treasurer, 255 States Street, San Francisco, CA 94114-1405.

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