

BROMELIAD SOCIETY OF GREATER CHICAGO

THE BSGC NEWS

May / June, 2012

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Lori Weigerding

We didn't have enough interest in going to Pesche's on June 10th so Steve and Martha will do a program on their visit to two California societies. The meeting will be held at 2 pm in the Annex(trailer) at the Chicago Botanic Garden. You may want to come early to see the Ikebana Show. We visited the La Ballona Valley Bromeliad Society Show and Sale and the South Bay Bromeliad Society meeting. We will show you the wide variety of plant genus they had in their show. We also visited Paul Isley and Mike Robinson's Rain Forest Flora Nursery in Torrance, CA.

President's Column

Well Jeff and I are wondering what ever happened to Spring! Seems we went from Winter to Summer with some Fall mixed in! Although I could do without these 80-90 degree days! Unfortunately our trip to Pesche's will have to be post-poned until a later date as this understandably is a very busy time of the year for them.

Martha and Steve will be presenting a program for us on June 10th. These are always so great, all the interesting plants and places that they go to and take such wonderful pictures! I will be meeting with someone from the Cactus Club June 1st to discuss how we're going to divide the room up. I'll let you all know at the meeting what we come up with!

Look forward to seeing you all!

Lori Weigerding

I hope you have started picking out the plants you want to bring to our show. We would like a variety of genus represented. Since we are sharing the Botanic Garden room with the Cactus Society, we do not need as many plants. We would like you to bring your best ones to share with the public. This is the time to educate the public about bromeliads. (Ed Note: This is one of the primary functions of our organization.)

Odean Head had a good article in the April (2012), Houston Newsletter on "Grooming Plants for Show."



This Neo is atypical since it kept growing and growing until it developed a stem.

It's getting to that time of year when everyone is talking about show preparations. We are fortunate to have so many hard working members that are capable and willing to help with the show. If you are not signed up, you need to. It can be very rewarding. Our shows are the best opportunities we have each year to show the public how many different kinds of bromeliads we grow and how beautifully we can grow them.

Obviously, the plants need to be entered in the show for the public to see them. We can all participate in this needed source. If you have a plant or plants that would improve the show, you need to enter them. It could be a terrible

assumption if too many people assumed that everyone else would provide all the beautiful

plants we need for a beautiful show. Let's all make an honest effort to see if we have any good show entries. I am including the grooming tips that we have used before and in most cases you can turn red ribbons into blue by using them. Our April program will also be on getting plants ready for show which will give some more sources for tips.

SELECTING PLANTS

Sometimes we have a problem getting started in our selection process because we are looking for a plant that is ready to be on the head table. I usually have to make several trips through my collection before I get very many plants to consider. I can move on faster with this process when I decide to defer making the final evaluations and selections until after the grooming has been attempted. This will allow me to be a little more lenient in my initial evaluation. We should also familiarize ourselves with the show schedule and try to get entries in as many of the categories as we can to make it a better balanced show.

CLEANING PLANTS

A good set of tools can help you do a better job with possibly less effort. I have several tools that I select from as needed. I have a flat end surgical hemostat for pulling out large concentrations of tree leaves and debris lodged in the top of the plant. A long needle nose hemostat is used for the deeper leaves. I also have long, thin tweezers for the tree leaves that are deep in the plant. I have several sizes of artist brushes, at least a small, medium and large and some with long

handles to be used for finer cleanup of the plant. I have scissors and an exacto blade for trimming plant leaves. Add a bar of soap and spray bottle and I will probably think of something else when I start grooming. If there is a concentration of tree leaves I will remove a majority of them before I start washing. I use a water hose with a spray nozzle that will furnish a good solid stream without too much pressure to wash out dirt, tree leaves and other debris. After the first



Jack Reilly's Aechmea cylindrata in bloom Please note the four blooms.

wash, look deep into the plant for tree leaves and dirt that did not come out. Be careful about digging too much with your fingers because you may break or tear a leaf. It is best to use some long tweezers or a surgical hemostat to pull out the debris. You can loosen the stubborn dirt inside the base of the plant with a small artist brush. Rinse the plant again to remove loosened dirt and debris. Clean the surfaces of leaves individually. The cleaning intensity will vary from plant to plant depending on how delicate the leaf is and whether it has scurf or not. If it has scurf,

be careful not to remove any of it because it may not regenerate and will be obvious to the judges. On most of my plants I will suds each leaf with Ivory soap and a heavy artist brush. If the leaves are not too treacherous I will pull each leaf through my fingers to loosen the more stubborn dirt. This should also remove any dead scale that might be attached to the leaf. If the scale does not rub right off it may still be alive and the plant should be treated with safer soap. Scale on show plants is a big NO. Next I rinse the plant with clean water again using the spray nozzle. I then set this plant to one side and work on the next plant while that one is drying. You really can't tell whether some plants are clean or not until they dry. You may have to go back and touch up some spots that you missed and rinse again (be sure to get all of the soap out). If you have any salt problems, you will need to



Canistrum triangularis in California Show

take some additional steps to remove the salt deposits. Sometimes another soaping of the salt area will do the job. Let the soap stay on for a little while and work on another plant. Then rub the salt area lightly being very careful not to damage the leaf. Pineapple juice or any citric juice can be helpful on stubborn salt deposits. Some of our members use club soda for this purpose, successfully. When you use the pineapple juice or any citric juice, be sure and rinse it well or it may leave a sticky, shiny film on the plant and be penalized by the judges. The club soda will not leave the sticky residue. Again,

wait until it dries to be sure that the salt deposits are gone. Some of the procedures may have to be repeated. It is almost impossible to completely remove the residue from some of the darker leaved plants and I will usually go ahead and enter them when only faint traces are visible. Fortunately, most of the Houston area has converted their water supply to surface water that corrected most of this problem.

REPOTTING

It is usually easier to repot a plant than to clean the pot. This is also a good time to select a pot size that is in proper proportion to the plant. A larger pot will

also make it easier to center the plant and cover any exposed caudex caused by leaf removal. Do not pot it too deep unless you have something to hide because the judges may assume you are hiding something and take off accordingly. Also be aware of what constitutes a standard pot A pretty pot will probably be classified as decorative and be placed in the Artistic, Decorative Container Division under a different set of judging rules (If you have some pretty or unusual pots, you should consider entering this division). Set the plant down and look at its conformation both from the top and from the side. Straighten the plant if needed and firm the soil around it so that it will stay straight. Be sure the mix on top is neat. Some use a special top dressing, but I don't think it's necessary so long as it is neat.

TRIMMING LEAVES

Leaf damage is a common cultural problem in growing bromeliads and you can bet money that the judges will see any that exist. They can also usually see where you have trimmed. If you have done a good trimming job they may not take off any points at all unless too many trims were necessary. Before you start cutting try to visualize what effect the cut will have on the plants appearance. If you have to cut a leaf tip back too far it could change the overall shape of the leaf as well as the plants conformation. Normally you should trim a leaf tip to its natural

shape but how should you treat a fingernail tip? Analyze the damage and the effect of the trim before you act. You may want to only trim the brown, changing its shape rather than take off the color. You may decide not to trim it at all if it will do more harm than good. In those cases the judges can usually see your dilemma and be lenient if there is little else wrong with the plant.

Some trimming of leaf edges close to the base can also be done where there are no spines but try to keep a smooth leaf edge.



Billbergia titan in California Show

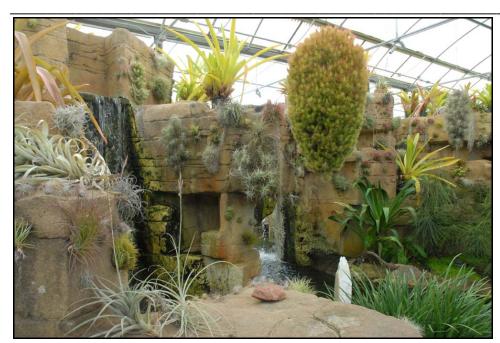
FINAL EVALUATION FOR SHOW ENTRY

Look at the overall appearance of the plant. Does it appear healthy and well grown? Does its foliage have the good sheen or scurf appropriate for the plant? Are the colors rich and the markings clear? How about its symmetry, is it appropriate? Is the size close to mature? Check the leaf damage. Is it too severe? Does it need more grooming?

CAUTION: Do not be over critical. Fix what you can but expect to be short in one or more of these areas since there are few, if any, perfect plants.

TRANSPORTING PLANTS

Getting all your plants groomed for show can be frustrating enough without any trauma on the way to the show. Take some extra time in packing your plants to make sure they do not damage each other or topple over. You would be smart to take some of your cleaning tools and maybe some extra mix with you for a last minute check just in case you have a little mishap on the way.



Rainforest Flora Nursery, Torrance, California

Even though we are not having a judged Show, try to make your plants look as pleasing as possible and make sure your plants don't have any pests.

If you lost the tag to your plant and aren't sure what it is

bring it to a meeting or the show and maybe someone can identify it for you. In the Jan/Feb. /March Newsletter of the Bromeliad Society of Northest Florida, they had a suggestion.

Taking a photo of the name tag with your new plants as you acquire them is a good way to keep track of what you have in your collection. (Ed. Note: Be sure to back up your computer and picture files so you don't lose them and the names of your plants!)

If you have trouble identifying the genus of a bromeliad you are not alone. The following article is from volume I number I of the Bromeliad Society Bulletin. January-February 1951.

For many years bromeliads have interested scientists and botanists. Possibly one of the first recorded attempts to give them scientific classification was in 1623 when Banhius gave the pineapple the scientific name of Cardus brasilianus folius aloes. Then in 1737, Linneaus called this same pineapple, Bromelia folius spinosis fructibus connatus. Now we call it Ananas comosus.

America the Indians called it *abacaxi*. Today most of us know it as just pineapple. After all a pineapple with any other name tastes the same.

When the first white man arrived in South Most of the scientific classification has



Hohenbergia correia-araujoi from show

been done on the bromeliads since 1840. Between the years 1870 and 1900, the bromeliads were enjoying a great popularity in Europe. Most of the collections of living plants, of course, were in the principal botanical gardens such as Kew, In England, Liege in Belgium, Paris in France, Berlin in German(y), and St. Petersburg in Russia. Soon the plants came to

America to private estate greenhouses and to botanical gardens in New York, St. Louis and Philadelphia. Now they may be found not only in the botanical Gardens every where, but in the small private gardens, in my home and yours.



Tillandsia Usneoides 'Curly' from Show

If it were not for the recorded facts, it might be difficult to understand how one species of a bromeliad could receive so many different names over a period of years. As for instance, our common Spanish Moss, *Tillandsia usneoides*. It has had not less than twenty-two scientific names, not to mention its numerous common names.

Another outstanding instance of a plant receiving a name which was changed many years ago by the recognized authorities, but not by the horticulturists and enthusiasts in Europe is the very beautiful and popular bromeliad *Aechmea fasciata*. This species introduced into cultivation in 1826 was first described by plants that flowered at Kew Gardens in Oct, 1878. It is undoubtedly the most popularly known and grown bromeliad in all of Europe today,

as well as during the past thirty or forty years. In Belgium where it is grown by the thousands and used as a decorative house plant, it is still known as "Billbergia rhodocyanea." (Still occasionally found in books and Nurseries under this name in 1975). This particular plant was named Billbergia fasciata by Lindley in 1828 in the Botanical Register, but in 1830, Schultes considered that it belonged to another genus and named it Hohenbergia fasciata. Then in 1847 Lemaire described this same plant as Billbergia rhodocyanea. Ten years later in 1857 Beer described it as Hoplophytum fasciatum. A few years later in 1883 Wawra renamed it Aechmea rhodocyanea but soon decided he had made an error by so doing and then renamed it the following year Quesnelia rhodocyanea. Baker in 1879 finally gave it the present name Aechmea fasciata after he had seen it flower for the first time in Kew Gardens in 1878. This latter name has been accepted ever since by

botanical authorities although unfortunately, it is still grown and sold commercially in Europe as *Billbergia rhodocyanea*.

Thus, it may be quite possible that the mistaken name of *Billbergia rubrocyanea*, listed and sold by the late Richard Atkinson of Leucadia, California, derived its name from the very nearness to the original European name rhodocyanea. Unfortunately this mistaken name was applied to the true species of *Billbergia saundersii* now sold all over the United States as Billbergia rubrocyanea. There never has been a billbergia with this species name in any bromeliad botanical work that I have ever seen. **Mulford Foster**

I think since we now have faster communication, it is easier to note when something has been misnamed.

Editor's Note: Does anyone know of a Federal (or other country's)
Witness Protection Program for a Plant? Our son still has as one of his favorite T Shirts:

"Hi! You don't know Me! Federal Witness Protection Program".



Best of show in the Artistic Class

In the May 2010, San Diego Newsletter:

BROMELIAD DNA:

What's in a Pair of Genes by Andy Siekkinen

Our interest in bromeliads is almost as diverse as the plant family itself. This fascination comes not only from the great diversity of the plants but also the endless discussions and debates that we engage in about them. The Bromeliaceae family has the ability to bridge those people enamored with the flash and elegance of orchids and those captured by the rough and curious nature of cacti and succulents. Some people are content with enjoying bromeliad beauty while some are drawn to the details of taxonomy and classification. Either way we will always have something to discuss about these plants.

Bromeliads have been shuffled, reorganized, and renamed almost from the time the first plants were described by western explorers. With the recent advent of DNA sequencing we are currently in the thick of a full reshuffling of what we have come to 'know' about bromeliads.

But research that has been ongoing over the past 15 years is starting to paint a picture and reshape the way we think of our bromeliads, their relationships, and classifications.

In 2007, Thomas Givnish and his fellow researchers at the University of Wisconsin proposed a fairly drastic set of changes. The subfamilies of *Tillandsioideae* and *Bromelioideae* remain as monophyletic groups meaning that each group can be traced back to a singular ancestor. But out of the polyphyletic *Pitcairnioideae* they suggest the creation of 4 new subfamilies: *Brocchinioideae*, *Lindmanioideae*, *Hechtiodeae*, and *Puyoideae* (as well as supporting the creation of *Navioideae*) for a total of 8 subfamilies.

But don't throw your hands up in frustration (at least not yet). It is actually pretty interesting information to learn. Givnish et al. Have done a good job correlating when the different clades (groups) branch off as distinct groups with geographic locations and geographic changes.

Overall, bromeliads seem to have branched off from their closest relatives approximately 69.5 **million years ago** (**Mya**). Of the currently surviving branches of the family, the next split was 19 Mya as the *Brocchinia-Ayensua* group branched

off, followed by *Lindmania* around 16 Mya. These species are primarily found in the Guayana and Brazillian shields where the roots of the family were based. Around 15 Mya bromeliads appear to have started radiating out through South and Central America including the development of more xerimorphic *Hechtias* and then the *tillandsioids*.

As a related side note-the vast diversification of the 'atmospheric' *Tillandsias* approximately 12.7 Mya was the rise and diversification of the hummingbirds which are key pollinators of many of the *Tillandsias*. These also coincide with the rise of the Andes.

The next branch of the family was the *Brewcaria*, *Navia*, and *Cottendorfia* (as *Navioideae*) around 14 Mya, still centered in the Guayana Shield. The *Pitcairnioideae* clade then branched 12.7 Mya from their closest relatives: the *Puyoideae* and the *Bromelioideae*.

The *Pitcairnioideae* group is interesting as it developed and branched as it invaded the other parts of South America in apparent counterclockwise manner. From the Guayana Shield it went into the Amazon basin and the northern Andes and then finally into the southern foothills and drier regions of the Brazilian Shield and Bahia. Roughly this can be seen as the sequential divergence of *Fosterella* in southern Bolivia and northern Argentina, then *Abromeitiella/Deuterocohnia* to the south, going into the Dyckia range to the east of the *Deuterocohnias* and further east to the *Encholiriums* which may or may not fall within the *Dyckias*.

The *Puyas* and *bromelioids* split around 9.1 Mya with the Puyas diverisifying greatly as they spread through the Andes and the bromelioids diversifying both within and as they spread out of the Brazilian Shield starting about 6 Mya. *Bromelias* seem to be the most 'primitive' group in the *Bromelioideases*.

Some notes of interest. Based on the family tree and timelines, CAM metabolism has developed at least four times (in *Puya/Bromelioideae*, *Pitcairnioideae*, *Tillandsioideae*, and *Hechtioideae*). Epiphytism also arose four times (*Bromelioideae*, *Tillandsioideae*, *Brocchinia* and *Pitcairnia*.

I hope this serves as an opening of a discussion on current scientific research and doesn't discourage too much. It is a very short introduction to the topic but hopefully an interesting one.

We had an interesting knock down drag out fight (Discussion, Dear!) About printing the full length of Andy's article. One of us felt that this article dovetailed with the Mulford Foster article before it. We would like to hear if you enjoyed Andy's full article or if you thought that it was too complex. (We are keeping score!) It is important that you enjoy the newsletter.

We wonder what the famous Late Mulford Foster would have thought about the new Technology of DNA ID's. It is interesting to see how our knowledge of our world is increasing daily. But let us give Thanks to the Giants that started Modern Science. In order to keep receiving our Newsletters, you may need to renew your membership if you haven't already done so.

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