Far North Coast Bromeliad Study Group N.S.W.

Study Group meets the third Thursday of each month Next meeting 15th May, 2014 at 11 a.m.

Venue: PineGrove Bromeliad Nursery

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Discussion: April 2014

General Discussion

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Meeting 20th March 2014

The meeting was opened at approximately 11.00am. The 24 members and one visitor present were welcomed. A total of six apologies were received.

General Business

Mail this month was two newsletters which will be added to the library for future borrowing, Bromeletter the official journal of The Bromeliad Society of Australia and Newslink from the Illawarra Bromeliad Society. Also for those with computer access we receive newsletters from around the country and overseas via e-mail reciprocal exchange, these are on disc in our library for members to borrow.

It was Kay's birthday on our meeting day and yes we embarrassed her with a cake and singing happy birthday, congratulations on being 21 again Kay.

Kay's article on page 16 of our January Newsletter about the majority of entrants in our Popular Vote competition being women prompted Herb Plever to write an article about women involved with bromeliads. Herb is the editor of Bromeliana the Newsletter of the New York Bromeliad Society in America. (article p.12)

Ross, Lesley and Wendy attended the Tillandsia Day in Brisbane and had a great day. The talk by Peter Tristram on DNA, nomenclature and how tillandsias evolved was especially interesting. Peter's explanation of the phylogenetic tree and how it works made it all so understandable. The hybridisers among those who attended seemed particularly interested in this as it will help them choose plants that are more closely related to then hope to produce fertile hybrids. Other members spoke about their personal experiences with growing tillandsias. There were some absolutely amazing plants on show for discussion both species and many hybrids produced locally and some imported from overseas. Then there were the sales tables and mayhem as the mad scramble began, hundreds if not thousands of plants were piled into desperate arms wanting that special new rare treasure being offered up for sale. The mad scramble over, with lots of happy faces, yes we secured a few treasures ourselves and yes we shall return next year as these are events truly worth attending. The knowledge gained and friendships rekindled makes it all worth the effort.

A reminder about the 18th Australasian Bromeliad Conference - **Bromsmatta** being held in Sydney on the 16th - 19th of April 2015, registration forms are available on line at www.bromeliad.org.au or ask Ross for one if you haven't got computer access and wish to attend. There will be many well known presenters and bromophiles from around the country and from overseas who we read of in our Newsletters, it is good to be able to put faces to names when one finally gets to meet some of these people in person. Good times are to be had by all.

Ross addressed rumours about PineGrove, YES it has been offered to a select few for sale but it is NOT closing down, it is NOT on the open market but was only offered for private sale, the nursery will remain even if Ross moves on. He wont be going far - perhaps Brazil - for a couple of years he says would be nice. Until you get a postcard from Brazil assume all is as per normal here. Sort of !!!

With many thanks to Daryl Ganter from the Central Coast (Newcastle/Gosford area of NSW) our library has received a very kind donation of a large box of Journals / Newsletters, photos etc. and a book by Victoria Padilla. As Daryl is not well he has passed his library on to our Group with the hope that we will get a lot of use from it's contents.

Thank You very much Daryl, we can assure you they will be treasured. Our thoughts are with you.

Show and Tell

Ross showed his *Aechmea* 'Shogun' which is the albo-marginated cultivar of *Ae. chantinii*, whereas the well known *Ae.* 'Samurai' is the reverse pattern being variegated. Both are a little cold sensitive in our climate with 'Shogun' being the less tolerant of the two. However this plant has been grown in his shade house under 70% black mesh for approximately 18 mths with little damage, it is in full bloom now for the first time for him, hopefully he will get some pups. (photo p.9)

Ross also showed a *Aechmea azurea* which has flowers with blue petals not white as the first ones had which were grown from seed brought into the country. He is now getting a few spare pups for those interested. (article p.10)

Last month Ross showed a *Tillandsia multicaulis* with five paddles. When Lesley checked her plant on arriving home she found to her delight it had eight paddles and was unable to resist the 'brag' temptation to bring it to the March meeting. I guess this shows the importance of a good potting mix, this was demonstrated with three plants, all of the same age, of *Tillandsia* 'Samantha'. Lesley's plant growing in the 'Baylis Super Mix' was noticeably larger and healthier than the others owned by an unnamed grower in a regular mix.

Using the 'PineGrove's Bromeliad Mix' as a starting base, one can add your own preferred ingredients to achieve the desired mix to suit your growing conditions. A recent discussion with our potting mix supplier regarding additives for extra moisture holding capability to a mix eg: adding cheap potting mix, his response was to use coco husk chips which is horticulturally a better option. However as Les indicated, check the EC (electrical conductivity) number which indicates the salt content of the coco husk which may need to be washed well, before use.

A rather nice specimen of *Billbergia vittata* was growing very well in a small pot was then shown. So does size matter? (photo p.8)

A plant labelled as a *Billnelia* was shown to the Group, this will need checking for correct identification when it flowers. WTiF - wait till it flowers.

A plant labelled as *Quesnelia* 'Tim Plowman' x *Billbergia sanderiana* will also need to be checked when it flowers.

When identifications are sought, it is best to bring the plants along to a meeting when they are in bloom, or bringing good photos of the inflorescence along with the plant can help.

Group members were encouraged to have a look at the *Wittrockia superba* in flower in the front garden by the pond at PineGrove. It is quite an attractive plant and Ross encouraged anyone with a good representation of species, cultivars or hybrids to take photos. Occasionally the International Cultivar Registrar, Geoff Lawn needs photos to help update or improve the images held on the Bromeliad Cultivar Register (BCR). Geoff did this recently with a photo of Lesley's *Neo*. 'Pink Spider' we had in our FNCBSG NSW December 2013 issue, this photo is now on the BCR.

What is the **BCR** for, it is for the registration of bromeliad hybrids and cultivars, it is to hopefully encourage hybridisers to only name their best cultivar and to be sure it is truly unique and recognizable. When registering hybrids or cultivars a photo must be supplied of THE plant when it is registered, therefore we know the photo of a cultivar or hybrid on the BCR is correct. The BCR is meant to help remove some of the frustration of plant selection or, receiving the plant selected, not one going by the same name but of different appearance. In 2009 a great new computer program running the BCR was able to look for all duplicate and triplicate names, over a hundred were found and fixed by several means but the main one was to use the hybridists name as part of the registered name. These things should not happen if hybridists referred to the BCR but DO happen and the Registrar is in a dilemma. How long has this rogue name been in circulation? In most cases the Registrar can't force the change to a unique name and has to resort to the old solution of *Neo*. 'Bullis's Margaret' instead of *Neo*. 'Margaret'.

Today the registration process of the Bromeliad Society International is concerned solely with registration of named cultivars. (taken from the BSI)

FCBS is the photo index of the Florida Council of Bromeliad Societies. This is a very useful site, however, remember it is a photo index, not the official registry for all species, hybrids and cultivars. Some of the photos held on this site are incorrect, not entirely the fault of the webmaster as he is only posting photos and the identification as supplied by the photographer. Even the species list here should only be used as a guide, from here refer to the written descriptions, most are readily available, if required ask at a Group meeting for assistance. http://www.fcbs.org/pictures.htm

If you have photos that you would like to contribute to FCBS please send them to: webmaster@fcbs.org

BCR - for correct identification of cultivars and hybrids. http://registry.bsi.org/

Florapix Brom-L Picture Gallery - for identification of species http://botu07.bio.uu.nl/Brom-L/

The New Bromeliad Taxon List - for up to date species allocation and spelling. Only published names are valid in the New Bromeliad Taxon list. http://botu07.bio.uu.nl/bcg/taxonlist.php

A man-made hybrid is a Cultivar but a Cultivar is not necessarily a hybrid because it can also be a cultural form of a wild species. (taken from the BSI)

Where are we heading: big changes are coming because of DNA studies, there will be lots of new genera names based on modern day people that we will need to get used to.

Jason Grant pointed out some differences of a group of *Vriesea* that differed to others in that genera and suggested the allocation of the new genus name of *Werauhia* way back in the late 1980s / early 1990s, this decision has now been justified by DNA. The grey leaved *Vriesea* considered by many to be *Tillandsia* and often referred to as T/V's have now been placed into *Tillandsia* based on DNA, refer to the New Bromeliad Taxon List for these up to date changes.

It was also emphasised to Group members not to be too overwhelmed by all the upcoming changes and remember to ENJOY YOUR PLANTS. We will of course, endeavour to keep you posted as the changes occur.

John brought along a neoregelia hybrid for identification he calls 'Mary's Plant' to indicate who he acquired the plant from. The plant remains unidentified as a lot of neoregelia hybrids are difficult to put an exact identity on. It was suggested to John to tag his plant as *Neoregelia* hybrid with his 'Mary's Plant' notation on the reverse side of the label. At least this helps link all pups from this plant. John also brought in a vriesea hybrid believed to originate from Dillings Nursery with no name, this plant is still as yet to be identified. (photo p.9)

Dawn showed a plant she had bought as *Aechmea orlandiana* 'Pink form'. This opened a discussion regards the variability of this species and how if one allows their plant to clump it will give a multitude of colour patterns from the usual green with black blotches, white with black blotches, to a very dark almost totally black blotched plant to a very white with pink with only a small amount of green in it. Some *Ae. orlandiana* cultivars to look out for are *Ae.* 'Rainbow', 'Ae. Snowflake' and *Ae.* 'Ensign'. On entering orlandiana into notes in Advanced Search on the BCR, 33 results for cultivars of *Ae. orlandiana* are found.

Tidy-up Corner (corrections)

Page 3 of our March 2014 Newsletter says "The growth stimulant Formula 20 contains tricantonal". This should read "Formula 20 is **replaced** by tricantonal".

Caring for Cryptanthus beuckeri

by Les Higgins 2014

Cryptanthus beuckeri leaf shape is spatulate and its common name is 'Marble Spoon'. Colour is dark green marbling over light green background. Stem colour is brownish, this colour extends into the petiole (leaf stalk). The lamina (flattened extension forming the leaf) may, as the plant ages, develop a rosy hue.

Cryptanthus beuckeri roots grow efficiently when the pot width is greater than its depth. Shallow Pots and Squat Pots are popular but Net Pots allow more air to circulate within the substrate.

There is a saying, "The nearer the tropics the looser the pot". For *Crypt. beuckeri* in Northern New South Wales a good potting mix has high organic content. Coarse river sand improves the porosity. For nutrients include 'Organic Plant Foods' (e.g. 5 in 1 Plant Food) containing animal manures, kelp, blood and bone and hoof and horn. Further additions are Zeolite, horticultural grade diatomaceous earth, soft rock phosphate and water retaining granules. Polystyrene bits, scoria or charcoal in the substrate create a "looser pot" improving drainage, air movement and increasing the quantity of roots. Stones can make a potting mix cold.

A dilute foliar spray can be molasses (to maintain high carbohydrate). A fertilizer described as 'Low nitrogen, high P and high K' (e.g. Campbells Yellow) is good. Better still is a fertilizer with an analysis of K. N (as Nitrate). Ca (e.g. Phostrogen). Best is the 2 or 3 part pack. Nitrogen in the Nitrate form reduces the tendency for *Crypt. beuckeri* leaves to become big and soft as occurs when Urea and Ammonia in large percentage are in the formulae.

During summer *Crypt. beuckeri* flourishes in less than average light. Eight hours of darkness allows transfer of the products of photosynthesis to growth points and storage areas. A desirable spectrum is red shade cloth over white shade.

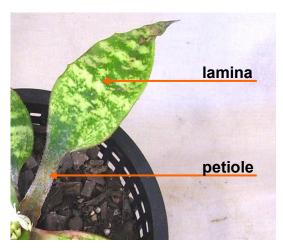
A polystyrene vegetable box facilitates good growth. Pour water on a thick wad of newspaper in the box. The evaporating water makes the air within the box very humid and this eliminates the need for watering. Temperatures can also be controlled.

<u>Warning:</u> Constantly wet newspaper becomes slush. Pots sink into the slush stopping drainage and air exchange. Chicken wire over the newspaper holds the pots up and reduces the problem. Net pots eliminate the problem.



Cryptanthus beuckeri is of tropical origin and best kept above 12°C. The ideal growing temperature is probably between 20°C and 35°C. Death is inevitable if the plant is wet during a cold night (below 5°C). In winter (June - July) no water for up to eight weeks induces dormancy. That dormancy increases survival in winter and improves growing vigour. August onward a minimum day and night temperature of 20°C makes Crypt. beuckeri quickly flower and produce pups.

Popular books insist cryptanthus need regular watering — bunkum! Recent talks on photosynthesis suggested: "water on the leaves appears to prevent the uptake of CO₂ because the trichomes become bloated and flattened". "Net CO₂ exchange is inhibited by surface wetting". The nursery industry claims more plants are lost through over watering than any other cause. Water at night cannot be utilised by non-cam plants. Tap water prevents CO₂ exchange in cam plants. Excess water inhibits root respiration and lowers soil temperature. Wet substrate and low temperature are a precursor for root rot. *Crypt. beuckeri* thin leaves suggest a non-cam plant. A small amount of rain water applied early morning, if needed, assures foliar respiration. In non-industrial areas natural rain showers are desirable. Fogging, misting or vapour is recommended for *Crypt. beuckeri*.



Plants with trichomes respond differently to rain water compared to tap water. Fresh rain water is considered pure, contains air and is pH5.6. Tap water treatment includes Alum to remove solids, Charcoal to destroy odour, Chloride to kill nasties and the latest addition being Fluoride. Finally to prevent pipe corrosion tap water is pH7. *Crypt. beuckeri* most dynamic growth occurs in a substrate of pH5.6 to pH6.0. Maintaining pH5.6 is difficult when pH7 tap water is used.

Pests include ants, mealybug and slugs. Ants farm mealybug and relocate the mealybug crawlers to other plants. Constant ant activity may indicate the presence of Root and Soil mealybug. Ants run over the flowers and occasionally smear pollen onto the stigma. Seed pod progeny is not "pod parent *Crypt. beuckeri* x pollen parent unknown", it is "*Crypt. beuckeri* x self", pollination courtesy of ants! The possibility of ants transferring pollen between two plants is zero and there is no other obliging insect.

For pest control diatomaceous earth (DE) kills ants and mealybugs. Slugs avoid pots containing DE. Every plant introduced into the collection is potentially a mealybug carrier. De-pot and wash the roots of a 'new' Cryptanthus to reveal root mealybug. Tear off the bottom leaf to see if mealybugs are hiding. Finally drench the roots with a water based systemic wide spectrum pesticide (e.g. Confidor™). A one litre pressure spray pump with 3.3 ml of Confidor in rain water is always available and has a long shelf life (this is the same as Ready To Use Confidor™ without the price tag). DE in potting medium breaks down to monosilic acid, leaf sieve tubes are stiffened by monosilic acid up-take and aphid mouthparts are unable to pierce the sieve tubes to gain nutrient.



Vriesea gigantea var. seideliana 1st Open and Judges Choice Laurie Mountford



Neoregelia 'Empress Variegated' 1st Novice Lesley Baylis



Aechmea nudicaulis - on driftwood log 1st Decorative Lesley Baylis



Tillandsia lindenii grown by John Crawford



Does size matter? plant 600mm tall, in a 80mm pot



Aechmea 'Shogun' grown by Ross Little



Vriesea for identification grown by John Crawford

Photo's supplied by: Ross Little



Cryptanthus 'Ti' grown by Jeanette Henwood



Neoregelia 'Hannibal Lector' hybrid grown by Shane Weston



Guzmania 'Tricolor' grown by Kay Daniels

Aechmea azurea

Not Ae. fendleri nor Ae. winkleri nor Ae. araneosa

by Derek Butcher

In 1996, Peter Franklin of Raymond Terrace was pondering over a plant he had which had just flowered with white petals. Nothing strange about that, you may say! But he had received identical looking plants as *Aechmea fendleri* from Bill Morris and *Aechmea winkleri* from Marjory McNamara. Neither of these plant names are known for their white petals, but you can get albino plants. Using Smith and Downs, Peter found that the closest match was *Aechmea azurea*, but, as the name implies, this has blue petals. He decided to put his thoughts to me and I put them to Harry Luther at the BSI Identification Centre. Harry's answer

was succinct; Aechmea azurea!

Apparently Harry had come across this problem before, because the BSI Seed fund had offered *Aechmea fendleri* seed in the late 1970's. This could be where Bill Morris got his plant originally. Plants raised from this seed offer turned out to be a weak white-flowered form of *Aechmea azurea*.

Soon after Harry's advice, Peter's other plant flowered with blue petals therefore matching the description of *Ae. azurea.*

Why am I telling you this?

The white petalled plant is alive and well in other parts of Australia as well, in fact,



it has just cropped up again from Michael Romanowski in Melbourne under the name of *Ae. araneosa*. Someone has been trying desperately to identify this plant and yet it seems to be a plant not worthy of growing. If this saga of different names is occurring in Australia then it must also be occurring in the USA. The names could easily have been changed in the USA before the plants even reached these shores!

So if you have a smallish plant whose scape and inflorescence falls over through a lack of oomph and whose name is *Ae. fendleri*, *Ae. winkleri*, or *Ae. araneosa* and with white petals, look towards *Ae. azurea* as its likely identity. If you are hoping that it will improve under your own loving care, I would advise it is not worthwhile persevering with.

Wittrockia superba Lindman

This handsome bromeliad is a native of southern Brazil growing as a terrestrial or an epiphyte on trees, in the ground, or on rocks at elevations up to 1524 mtrs.

It has had several name changes, being in turn called *Nidularium superbum*, *Nidularium karatas*, *Nidularium wawreanum* and *Canistrum cruentum*, for in a way it resembles these genera, having an inflorescence that nestles deeply in



the heart of the plant. It is a large plant, with very shiny, lacquered foliage, and when well grown can have a spread of over 90 cms. It is definitely not a plant for everyone, for its leaves to 60 cms long are armed with hard red teeth and are tipped with a sharp spine, so the plant should have plenty of room. Fortunately it is a robust specimen and can withstand garden conditions where it does not get heavy frost.

The inflorescence, which resembles that of a nidularium, is slightly raised above the heart of the rosette. The many white-petaled flowers are well guarded by spiny, red bracts.

How does a layman recognize the Wittrockia?

On a purely superficial appearance basis the Wittrockia appears to be in between a Neoregelia and a Nidularium, but notice that:

- 1. the Neoregelia flowers are in one head surrounded by large scape bracts.
- 2. the Nidularium head is broken up into close fitting branches, each colorful bract holding several flowers, all within one head.

The Wittrockia, however, does not have the large branch bracts although there are bracts separating and enclosing the sections of the compact head.



The petals of Wittrockia are partially fused.



Taken from: Bromeliad Society International Journal archives: BSI Journal - 1960, V10 (4), BSI Journal - 1978, V28 (1) Photos by Ross Little

BROMELPHILES and GENDER

by Herb Plever March 2014

A brief article entitled "Being Involved" by Kay Daniels in the last issue of the excellent newsletter of the Far North Coast Bromeliad Study Group in New South Wales, Australia, raised the issue of how active women are in comparison to male members. This sparked in me a recollection of an event in the distant past.

In the article Mrs. Daniels said, in part: "Congratulations to Marie for winning the Open Popular Vote for the third year in a row! Trish is also to be congratulated for winning both the Novice section and Judges Choice. Helen had a well deserved win in the decorative section which has only been going since June. What do all these winners have in common besides growing beautiful plants? They are all female! With a few exceptions, notably Shane, most of the entries in the competitions are from women. Why?! Men make up half of our group so let's see more of you entering."

The event in my distant past occurred about 35 to 40 years ago when Sig and Flo Sussman and my wife Sylvia and I were travelling in Europe. We arranged to meet in London to visit the famed Chelsea Flower Show at the Kew Botanical Gardens. There we made a beeline for a bromeliad exhibit put on by the then British Bromeliad Society (it has long since been defunct) headed by Clive Innis. We met Clive there, and he invited us to attend a meeting of their Society the next evening at Royal Albert Hall.

We got to the hall early, and watched as members of the Society arrived. Except for one member they were all wearing bowler hats, business suits and ties and were carrying umbrellas.

There was a speaker for the evening - I regret I've forgotten the topic - and after he spoke he asked if there were any questions. Immediately, Flo Sussman stood up and in her pronounced Bronx accent inquired: "Yeah, how come there are 29 members at this meeting and only one is a woman?" The speaker was stunned for almost a minute as he tried to gain his composure. Finally, in a faltering voice with a few ahems he replied: "Well you see medam, we've always thought of the bromeliad as a sort of male plahnt." He then went on to explain defensively that he meant to say bromeliads present a strong image that is attractive to men whereas women in garden clubs tend to like african violets.

Such a strange view of reality may not have been responsible for that society's demise, but it sure didn't help keep it going. This was 25 years or more after BSI's formation in 1950 and most affiliates had active women in leadership and membership.

I think certain people, regardless of gender, just have an innate esthetic appreciation for architectural forms, for bold color and exotic shapes that attract them to bromeliads. This includes women and men of all sexual preferences, races and regions.

Over the many centuries of our history, societies have always been dominated by men. In the United States, women did not receive the right to vote until 1920. That victory (for men as well as women) was due in large part to the long years of courageous agitation by Susan B. Anthony, Elizabeth Cady Stanton, Lucy Stone, Julia Ward Howe and other heroic women. While they have not yet achieved full equality in the workplace, women now play key and often leading roles in all phases of society activity.

I do not mean to downplay the important contributions of men, but let's give women their due respect for the vital, unsung role they played and play in building our bromeliad world, and for the activities and fun they bring to our societies today.

The first Board of Directors of BSI were all men except for Victoria Padilla, but that changed over the following two decades with the inception of many new society affiliates around the world, and those societies soon had about equal numbers of men and women. Early on many women played key roles in building and strengthening BSI and its affiliated societies and in brom education and hybridizing.

Racine Foster of Orlando, FL. was Mulford B. Foster's wife and partner in the exploration, discovery and description of hundreds of bromeliad species. She was also an editor of the Bromeliad Bulletin, and wrote many articles for the Bulletin and for the Journal. If Mulford was the "Father of the Bromeliads", then Racine certainly was its Mother.

Victoria Padilla of Los Angeles, Cal. was one of the founders of the BSI in 1950 and its Secretary in its early years. She is a noted author of books on bromeliads and was for many years the editor of the Bromeliad Society Journal.

Muriel Waterman of New Zealand, an early brom pioneer and collector in the 1950s, was the mentor of Bea Hanson who was one of the founders of the New Zealand Bromeliad Society in 1963, editor of its journal for about 25 years and a BSI Trustee.

In 1969 Olwen Ferris became the first women president of the Australian Bromeliad Society which was founded in 1963. From 1969 to 1980 all of the presidents of the society were women. Olwen was editor of Bromeletter from 1971 to 1988; she wrote many articles for that publication and for the BSI Journal, and she was an Honorary Trustee of BSI.

Margaret Mee was an important botanical artist of rainforest plants. She illustrated Lyman Smith's book "The Bromeliads". Ruby Ryde of Sydney, Australia was an early collector of broms in South America and was a president of the Australian Bromeliad Society. Renata Ehlers of Germany was an early explorer, collector and describer of Tillandsias in Central and South America. She is one of the most important taxonomists for the genus *Tillandsia*, and has published many valuable books on tillandsias. Lieselotte Hromadnik and Elvira Gross of

Germany, Amy Jean Gilmartin in Washington State University and Sue (Gardner) Sills at Texas A & M made valuable contributions to bromeliad taxonomy. These women also wrote many important articles for the Bromeliad Journal that contributed to its quality and standing.

From its inception in 1962 to 1970 our New York Bromeliad Society had all male officers. Its membership was mostly men at the start but women soon joined and became active; within about 5 years we had equal numbers of both sexes. When I became President of the society in 1970, the wonderful Theresa Begley became our Secretary, a position she retained for many years until her death. Happily we've had and still have women presidents, treasurers, directors, and good, active female members. (On a personal note, I salute my loving wife Sylvia who for 50 years has put up with hundreds of broms growing in our apartment, plants in every room and hours of weekly to bi-weekly soaking tillandsias in our bathtub.)

In Oahu, Hawaii, May Moir wrote many horticultural articles for the BSI Journal in late 1960s through the 1980s. Together with her husband Goodale Moir she was one of the founders of the Hawaiian Bromeliad Society. In Cairns, Australia, Lynn Hudson was and still is the dynamic force in the organization and growth of the Cairns Bromeliad Society.

There have been and are many more important female contributors to the administration of their societies and to bromeliad education:

In Florida, Connie Johnson, Carol Johnson, Moyna Prince, Helga Tarver, Dorothy Berg, educator and lecturer Dr. Terrie Bert, Maureen Frazel, Karen Andreas, Calandra Thurrott and Vicky Chernside.

In California, Thelma O'Reilly in San Diego, Kathy Dorr, Margaret Case and Pamela Koide Hyatt in northern California, brom collector and intrepid explorer Christy Brenner of Saddleback Valley.

In New England, Doris (Dee Dee) Bundy.

In Texas, Sue (Gardner) Sill in San Antonio and Carol Richtmeyer in Houston. In Hawaii, Hatsumi Mertz, and in Queensland, Australia, Narelle Aizlewood. In South Africa, Lyn Wegner was the organizer of the energetic and still growing new East London Bromeliad Society.

We've had important bromeliad nurseries founded and run by women: the late Sally Marz's Marz Bromeliads, the late Carol Johnson's Pineapple Place, Elizabeth Naundorff in Quito, Ecuador, Pamela Koide Hyatt's Bird Rock Tropicals, Lisa Vinzant in Hawaii and Betsy McCrory in Central Florida. Patricia Bullis ran the big Bullis Nursery after the death of her father, Harvey Bullis. Annick Gyselinck in the U.S. and Marjolein Deroose in Belgium are important officers for Deroose Plants which specializes in tissue cultures. Linda Cathcart is a C.E.O. for the Tropiflora Nursery.

Among the talented bromeliad hybridizers were or are Grace Goode, Margaret Paterson and Olwen Ferris of Australia. Margaret Peterson, Lisa Vinzant in Hawaii, Carol Richtmeyer in Houston, Texas, Patricia Bullis of Princeton, Florida.

Many of BSI's local affiliates have had women presidents, editors and other officers in the past. At the present time 11 society presidents are women, and 10 editors of society newsletters are women. There may be others; current information is not available on some societies.

No doubt I have omitted the contributions of some women in this too brief account. I apologize in advance for any inadvertent omissions.

On the CONTRIBUTION of WOMEN to BROMELIADS - An Update by Herb Plever April 2014

My article on the contribution of women in the March 2014 issue of Bromeliana has drawn much favourable comment. In the conclusion I recognized that I may have omitted the contributions of some women, and I apologized in advance for any inadvertent omissions. I take this opportunity to make a correction, and to add the names of women who have done and/or are doing important work.

First, with respect to the organizational work I said was done by Pam Koide Hyatt and Margaret Case in northern California, I was thinking of their organizing the North County Bromeliad Society. But I received several emails from members in southern California noting that Pam and Margaret had also been very active in the San Diego Bromeliad Society.

I owe an apology to my friend Eloise Beach of Apoka, Florida for having inadvertently omitted her in the article. Eloise has made contributions in a number of areas. Certainly she has done valuable work in bromel horticulture and education, and in the Central Florida Bromeliad Society. But I also want to recognize Eloise's role in a critical event in BSI history; in May, 1980 new BSI by-laws were adopted, that gave representation to local bromeliad affiliates world wide. This was after two years of intense work, organized and led by Sue Gardner Sill, Eloise Beach, Racine Foster and me.

In my March article I alluded to the work of many women in the fields of taxonomy and molecular DNA research. I add here the names of other women who made and are making important contributions: Carolina Granados Mendoza of Mexico, Lucia Hechavaria Schwesinger of Cuba who gave seminars at the 2006 World Conference in San Diego.

At the Bromeliad Symposium at the Monocots V Conference at the New York Botanical Gardens I attended last July, I met a number of women scientists who are doing molecular research on bromeliads and are now part of a new international organization that was organized there. This work is clarifying the evolutionary history and the taxonomy of the *Bromeliaceae*. Its leader is Prof. Dr. Ana Maria Benko-Iseppon of Pernambuko, Brazil. Other women active in this work are Clarisse Palma-Silva of Brazil, and Katharina Schulte and Nicole Schuetz of Germany. There were other woman scientists there, but I regret that I've misplaced their names.

Novice Popular Vote

1stLesley BaylisNeoregelia 'Empress Variegated'2ndWendy BuddleNeoregelia hybrid unknown2ndFlo DanswanVriesea 'Tachete Gold'2ndLes HigginsCryptanthus 'Marimist Kay'

Open Popular Vote

1st Laurie Mountford Vriesea gigantea var. seideliana

2nd Shane Weston Neoregelia 'Hannibal Lector' hybrid unreg.

3rd Meg Kerr *Vriesea* 'Mother of Pearl' unreg.

Judges Choice

1st Laurie Mountford Vriesea gigantea var. seideliana

Decorative

1st Lesley Baylis Aechmea nudicaulis on driftwood log

Comments from the Growers.

Lesley purchased her *Neoregelia* 'Empress Variegated' from a Brisbane brom. show in 2013, it's grown under 70% beige shade cloth and watered sparingly.

Wendy's neoregelia has been in the garden in full sun for the past 12mths, she felt it looked so good that it was worth potting and entering into the competition.

Flo grows her *Vriesea* 'Tachete Gold' under beige shade cloth, watered regularly and it does get some Seasol once a month.

Les' *Cryptanthus* 'Marimist Kay' is grown in a 200mm mesh pot with polystyrene chips on the bottom to encourage roots to fill the pot. Article pages 6 and 7.

Laurie bought his *Vriesea gigantea var. seideliana* as a seedling from PineGrove several years ago, kept in his bush house it receives some slow release fertilizer and very little watering. Meg commented she has rotted several by overwatering.

Shane grows his *Neoregelia* 'Hannibal Lector' hybrid unreg. under 60% black shade cloth with little watering.

Meg's *Vriesea* 'Mother of Pearl' unreg. is an Alan Phythian hybrid which Meg received 12mths ago, it is grown in the orchid house, it gets plenty of water and slow release fertilizer.

Lesley bought a piece of driftwood with one *Aechmea nudicaulis* on it, it is now a colony of five. Kept in the shade house needing little care apart from watering.