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

Study Group meets the third Thursday of each month Next meeting May 18th 2017 at 11 a.m.

Venue: PineGrove Bromeliad Nursery

114 Pine Street Wardell 2477

Phone (02) 6683 4188

Discussion: April 2017

**General Discussion** 

#### **Editorial Team:**

Kay Daniels Trish Kelly Ross Little Helen Clewett

pinegrovebromeliads@bigpond.com



Statements and opinions expressed in articles are those of the authors and are not necessarily endorsed by the Group. Articles appearing in this News Letter may be used in other Publications provided that the source is credited.

#### **Meeting 16th March 2017**

The meeting was opened at approximately 11.00 am The 14 members and one visitor present were welcomed. A total of four apologies were received.

# **General Business**

In February Laurie brought a Neoregelia to the meeting to enter in the Popular Vote competition, the plant's label had been lost long ago, so it was entered unnamed. Laurie's plant photo on p.7 of our March Newsletter can have a new label added to its pot as his plant was identified as *Neoregelia* 'Bob and Grace'.

Another plant identification change discussed at our March meeting was about a plant many of us have had in our collections for decades is shown on p.9 of our March Newsletter is now *Aechmea* 'Forget Me Not'. This plant previously known as *Ae. caudata* var. *variegata* is grown into large showy clumps in our gardens with the inflorescence lasting for many months.

We were given an introduction of changes to plant names which has come about because of work done with DNA. The arrows in the chart on pages 10 - 11 (March Newsletter) indicate the plants that are most likely to be affected in our collections. This lead to much discussion with Group Members who mostly agree that it is going to take some time to get used to these new names. Most members agreeing that as plants are divided, repotted and new labels are written we will gradually learn the new names and they will become common place in our vocabulary. These name changes will be much easier for those entering into the world of Bromeliad collecting today if we all make an effort now to learn these changes. Etymology of the new names on page 16.

When writing new labels, if in doubt of an up-to-date name change and correct spelling refer to:

The New Bromeliad Taxon List for species: botu07.bio.uu.nl/bcg/taxonList or

The Bromeliad Cultivar Register for hybrids and cultivars: registry.bsi.org/index

# Show, Tell and Ask!

At a previous meeting we had a discussion regarding our water quality and its suitability for our Bromeliads. Last month's test results surprised a few members encouraging others to bring samples along to our March meeting. Again we tested these with Les's bromothymol blue. The results weren't surprising, again indicating neutral or higher water quality all round.

With the aim of growing better, stronger, healthier plants the Group decided they would like to test various soil and potting mixes next, this will be done in May. Les commented that he also finds citric acid is useful to bring down the pH of the soil as stated in a article by Paul Turvey. Les uses boron to raise his pH which is only 5, boron will also bring on flowering. Try a pinch of boron in a watering can of water and then test the pH. If a plant is growing badly, test the pH and adjust it to the preferred pH level, note any changes in the plant good or bad and adjust again accordingly. Keeping good notes is important for evaluating your results. Les also suggested using potassium phosphate in the water now to harden plants for Winter. Potassium nitrate in Spring will help plants grow well.

Ross showed several Edmundoa but of most interest was *Edmundoa lindenii* (Brazil seed) acquired from Peter Tristram as a seedling, on flowering it's been identified as var. *rosea*. Plant 125 cm across, inflo. 22 cm across. (photo p.9) Also shown by Ross was a *Tillandsia fasciculata* labelled as *Tillandsia* 'Dennis', but it is definitely not this as it is very different to the registered plant of this name. *Tillandsia* 'Dennis' on the BCR is more closely related to *Till. carminea* or the *Till. tenuifolia* complex. Our bogus 'Dennis' story and photos p's 10 and 11.

Helen showed a clump of *Tillandsia* 'Nashville' in bloom, explaining that it is a hybrid created by Margaret Paterson of Gympie using *Tillandsia tricolor* crossed with *Tillandsia brachycaulos* as the parents. (photo p.8)

Keryn wanted an ID on a plant, an oldie but a goodie for a sunny position, it was identified as *Aechmea* 'Mary Brett'. Ross commented that the particular plant shown needs brighter light to full sun to achieve its best results.

Keryn was also concerned about brown spots on one of her Neoregelia, after some discussion and an explanation of its growing situation in the garden, most of us agreed the spotting was most likely caused by twigs and leaves falling on the plant. It is still an attractive plant and not something to be terribly concerned about unless one wishes to show or enter the plant in competition.

Following on from last month's discussion regarding Dyckia, Keryn brought along a Dyckia which she wanted to know how best to divide. Ross collected the seed which is in capsules explaining to all how to grow Dyckia from seed. Dyckia seed germinates readily, the problem is they are very promiscuous, so it is likely that any resultant seedlings will be hybrids. Ross firstly removed the bottom leaves from Keryn's plant until the two conjoined plants were exposed and then cut carefully through the roots first gradually working towards the top of the root base on each side, the plants will eventually come apart easily. Ross explained if it were a three or more clump the process is the same at each plant junction. Our attention was drawn to the article on Dyckia culture on p.12 of our March Newsletter printed in response to Keryn's cultural hints query in February.

3

# 19th Australasian Bromeliad Conference 2017 - Sunny Broms

Sunny Broms - only my second conference but at least I had more of an idea as to what to expect (get excited about i.e. buy more Tillandsias and maybe some other Bromeliads not usually seen....) BUT.... a cyclone was forming off the coast of Queensland and when I measured its distance from Caloundra, some 1200 km away, I felt reasonably consoled that the conference would not be impacted although we could be in for a wet or cancelled garden visit.... or two. So that theory went out of the van window as we were attempting our second different creek crossing trying to head north that dreadful Thursday morning 30th March 2017. We eventually made our way to the Pacific Highway with only minutes to spare as the Corndale Road started to flood.... then the penny dropped.... we had to keep going as we couldn't get back..!! Bromeliad Brain had got the better of us..!! However thanks to the Queensland Authorities being in overdrive we had the most peculiarly quiet drive, next to no traffic on the roads and suddenly we found ourselves in the eerily ghostlike town of Caloundra, at 2pm, everything was closed.... except of course the Events Centre where there was a steady mass of people gathering and admiring the displays and catching up with old friends. Of course "Soggy Broms" was the new catchphrase (but not quite within earshot of a Queenslander...!) However Nigel Thomson and his team must have called in every favour known to man because the weather fined up the next day and all garden visits went ahead to everyone's delight. BUT I digress.... what is a conference without speakers...? we were spoilt from the very first presentation.

#### George Stamatis spoke on Conservation through Cultivation

"What is conservation? Maintaining and protecting the natural world - the source of our resources and our life-support system. Conservation through cultivation is the deliberate introduction of endangered plant species into cultivation for the purpose for building up a large and healthy population. The aim is to secure the species' future on earth (not necessarily its future in its original habitat)".

Chester Skotak told us stories of *Organized Chaos* and his involvement with Bromeliads for over 48 years, of his Dura Flor nursery in Palmares, north west of San José in Costa Rica. He has introduced into cultivation many new species of which several have been named after him e.g. *Vriesea skotakii*, *Guzmania skotakii* and *Aechmea skotakii*. Chester has 408 hybrids in multiple genera including bi-generics registered to date, he shows his sense of humour with names such as *Quesmea* 'Udders'. He has done extensive work with pineapples, creating spineless miniatures and commercial red pineapples with yellow centres. For an entertaining read try his book "Searching for Miss Fortuna - The hunt for a Bromeliad" is recommended.

**Eloise Beach** gave a brief history of **48 Years of Incurable Bromelitis** telling of her nursery, her travelling experiences and the people met along this journey. *Billbergia eloiseae* and *Pitcairnia beachiae* were named to honour her. For the past 12 years Eloise has been working on Chester's Neoregelia hybrids putting them through a rigorous selection programme striving for superior plants that are not only stable but amazing eye candy. Cull, cull, cull was her message.

**Peter Tristram** set us off on a search for *Goudaea ospinae* var. *gruberi* first he briefly explained the new name Goudaea then on into the wilds of Columbia. He eventually found his elusive var. *gruberi* in habitat, "and what a thrill".

Peter and Jocelyn Coyle spoke of Totara Waters, Our Sub Tropical Dream, their garden in New Zealand, Peter keeping us amused with the many tales of collecting plants for the garden from around the neighbourhood and beyond.

**Dr.** Theresa Bert gave a very informative talk explaining where everything fits in the evolutionary Bromeliad tree - To reclassify or not to reclassify - the Taxonomists' conundrum with the Bromeliaceae phylogenetic quagmire.

**Bruce Dunstan** told of his tortuous years producing **Variegated Alcantareas** and how he achieved results with his seed raising programs. Eventually seeing variegated Alcantareas in habitat and in collections around the world.

There were so many stories both frightening to ponder - the sixth Mass Extermination - are we really a part of this - to the wonderfully funny stories told by Chester when he was out and about "observing" plants in their natural habitats in South America. In my opinion every single presentation was excellent and very compelling - how do I know? I didn't hear any snoring or knitting needles..!! So now for the real reason to go to a conference.... could it be the plants.... in

the competition.... no don't be silly - they belong to someone else..!! It has to be the plant sales.... of course!! As usual my credit card disowned me but not before I owed nearly half a king's ransom and after three or four efforts over the next few days I actually couldn't find anything else to buy. Guess it was time to go home then. After a final dinner together and lots of "see you at the Gold Coast in 2019", we are all hoping that 2021 will be New Zealand - as if you need an excuse to go there..!!



HELP !! There was a bowl of cereal here somewhere !!!

Article and photo by Lesley Baylis

We said our farewells.... and wondered what we would be coming home to and if there was anything left NOT submerged.

#### Encholirium heloisae

by Doug Binns 2017

Encholiriums in general probably don't appeal much to most bromeliad enthusiasts. This is perhaps partly because the most common species, *Enc. spectabile*, is large, prickly and doesn't flower regularly in pots. Even when it does flower, it would be easy to assume that it was a feature other than the flowers which inspired the species name. The greenish yellow flowers are individually not particularly spectacular, although they are very numerous and the inflorescence as a whole might be worthy of that adjective. However, not all Encholiriums are big and some of the smaller species, such as *Enc. magalhaesii*, are commonly grown by enthusiasts of terrestrial bromeliads and flower readily in pots. There is



Encholirium spectabile

also a group of a few species of even smaller, highly succulent Encholiriums which are ideally suited to pot culture but which appear to be less well-known than their larger congeners. One such species is *Encholirium heloisae*.

Encholirium heloisae also demonstrates that not all Encholiriums have flowers which appear to be dominated by stamens or ovaries. Flowers of Enc. heloisae and its few relatives of mostly dwarf Encholiriums are quite distinct from those of

other species. The petals are much more well-developed, larger and fleshier, and overlap to form tubular flowers. Apart from the



generally more subdued colours (usually shades of green), the flowers strongly resemble those of *Dyckia*. In fact, *Encholirium heloisae* was originally described as *Dyckia heloisae* and appears under

that name in Flora Neotropica by Smith and Downs. However, it has the diagnostic typical terminal inflorescence of *Encholirium* and so was eventually transferred to that genus. The related dwarf species, *Enc. pedicellatum*, *Enc. biflorum* and *Enc. scrutor*, also underwent this nomenclatural transition from Dyckia to Encholirium.



The natural distribution of *Encholirium heloisae* is restricted to a relatively small area in the Serra do Cipo in the Brazilian state of Minas Gerais, where it is fairly



common on rocky ground and rock outcrops. There is also an old record from Diamantina but the species has not otherwise been observed in that area and the record is considered to be erroneous. It often grows squashed into narrow crevices in the rock with no other competitors, but sometimes grows with other low vegetation.

Even though isolated plants on outcrops are fairly conspicuous, it is easily overlooked when growing among other vegetation, unless inflorescences are present, because of its small size and dark colour. In marked contrast to the larger species of *Encholirium*, notorious for their well-armed leaf margins which are very unforgiving at repotting or weeding time, mature plants of *Enc. heloisae* usually have leaves with smooth edges and no marginal teeth or at most only a very few short teeth. Seedlings (except when very small) are more toothy and while most plants grow out of their teeth as they develop, occasional individuals retain a complete set into adulthood. The leaf upper surface is smooth and shiny and varies from clear dark green to blackish-green or dark purplish-green. The



undersurface varies from glabrous to densely covered in small white scales and these sometimes also occur sparsely on the upper surface. Despite the variation, *Enc. heloisae* is a distinctive species which is usually easily recognised and as currently interpreted, is unlikely to be confused with any other known species.

For me *Encholirium heloisae* is an interesting and attractive plant which is easy to grow but slow to offset. It is drought-tolerant but grows best with regular watering in warm weather (2-3 times per week in summer for mature plants in my conditions), but less frequent watering in winter. It often grows in exposed areas naturally and tolerates full sun, but during the dry season plants in full sun look a bit stressed compared to their neighbours who get some shade during the day. It seems to appreciate a little shade in cultivation, especially in mid summer. If you have a bit of interest in terrestrial bromeliads but usually avoid encholiriums (either physically or as a collection choice), *E. heloisae* is sufficiently different that you may consider giving it a try. It may even give you a more favourable perspective on the genus as a whole.



Encholirium heloisae photos by Doug Binns





Neoregelia 'Bullis's Margaret'
1st Open and Judges Choice
John Crawford



Aechmea 'Flame'
1st Novice Dave Boudier



Easter Bunny Broms' by Keryn Simpson



Neoregelia 'Red Macaw' grown by Coral McAteer



'Happy CryptEaster'
1st Decorative Helen Clewett



Tillandsia 'Nashville' grown by Helen Clewett



Edmundoa lindenii var. rosea (Br. seed)



Vriesea 'Megan' grown by Laurie Mountford



Neo. 'Hannibal Lector' x concentrica grown by Keryn Simpson



'Easter Thoughts' by Dave Boudier



'Happy Easter' by John Crawford



Edmundoa lindenii var. rosea

Photo's supplied by: Ross Little



Edmundoa 'Alvim Seidel' 3 x Edmundoa grown by Ross Little

#### Tillandsia 'Dennis' is really 'Magnificent'

*Tillandsia fasciculata* is a very variable group of plants with many being imported into Australia as *Tillandsia* 'Magnificent'. The fasciculata complex has been revised with many being split off to form new species while those occurring south of Mexico, are regarded as true *Tillandsia fasciculata*.

One of the issues we see with incorrect naming of plants is importers using collection / purchase names to help identify or jog their memory of where they acquired a particular plant. This issue is what caused the identity problem of a plant shown at our March meeting tagged as *Tillandsia* 'Dennis' minus the 'ex'. Shown here is the true *Tillandsia* 'Dennis' that's on the BCR. ▶ It is distinctly different to our bogus 'Dennis'.



The story of how *Tillandsia* 'Magnificent' was called 'Dennis' by Peter Tristram.

On one of my trips to the US in the mid 1990s (1994 I think) I was given a very nice form of *Tillandsia fasciculata* by Linda Cathcart. It bloomed like a particularly choice form of what Tropiflora marketed as 'Magnifica / Magnificent'. ► A wild collected group which came from Fortuna, Panama, via Chester Skotak, if my memory serves me correctly.





Tillandsia 'Tropiflora'

Tillandsia 'Tropiflora' is recorded in the BCR as from Jamaica though. I sold my plant after a time as 'Tillandsia fasciculata ex Dennis' shortened to just 'Dennis' and it would be all over Australia by now. Years later Mark Paul from Sydney imported Tillandsia fasciculata 'Tropiflora' from Tropiflora Nursery (2008?) and it bloomed as a dead ringer for what I was calling 'Dennis' (and still does).

If they are not the same plant, they are very, very similar. Others will have bloomed both of these by now and might have opinions.



After reading Peter's story we understand how the nickname 'Dennis' evolved or should that have been 'ex Dennis'. We also know that these plants are variable in the wild, however we still don't know it's exact wild origins. Following discussion with Geoff Lawn it seems a safer bet, until proven otherwise, to call my plant *Tillandsia* 'Magnificent'.

Also worth considering as an identification is the unregistered *Tillandsia* 'Boquete' ▶ which does look awfully similar to some of the clones of *Tillandsia* 'Magnificent'. Geoff points out the BCR photos of the Jamaican *Tillandsia* 'Tropiflora' shows a bunched inflorescence with short branches, plus no bronze red leaves. Leaf colour could be due to cultural conditions / climate on that particular clone.







Tillandsia fasciculata 'Magnificent' in Panama photos by Peter Tristram



Tillandsia fasciculata in Costa Rica photo by Lesley Baylis

# A Brief Study into How Plants Function Part 3: Light and Shade.

by Les Higgins 2017

Sunlight (White Light) is electromagnetic radiation. Human eyes are sensitive to the range of frequencies between 400nm to 700nm (Nana Metres). A rainbow makes white light frequencies visible as Violet (Indigo), Blue (Cyan), Green, Yellow, Orange and Red. Beyond visible light is the UV region (closer spaced wavelength peaks). Frequencies below visible light are Infrared (wider spaced wavelength peaks). Plants utilize all the visible light frequencies and also UV and infrared. Proportions of each frequency vary during a year to give a changing **Quality of Light**.

Solar energy reaching the leaf is known as **photosynthetically active radiation** (**PAR**). Only a fraction of the solar energy reaching the earth is converted into carbohydrates by photosynthesis. PAR can be either transmitted throughout the leaf or reflected at its surface. Chlorophyll type 'a' and type 'b' absorb strongly in red (700nm) and blue (400nm). Absorption capability is weakest in the green waveband (550nm). Energy is needed to power the **Photosynthetic Carbon Reduction Cycle (PCR)**. (a future article will cover this topic)

PAR passing through a forest canopy becomes enriched in green and looses intensity as it enters the plant's **absorption spectrum**. Deciduous trees vary the quantity of light passing through the canopy. On the forest floor, as light and heat intensity change, the *Cryptanthus* monitor the Anthocyanin: chlorophyll ratio by altering the leaf colour thus avoiding overload. Anthocyanins convert energy less efficiently than chlorophyll, therefore coloured leaf plants grow slower than green leafed plants. A green leaf plant totally devoid of anthocyanins will always remain green.

*Cryptanthus* grown as garden plants in frost free areas are best shaded by green leaf vegetation.

A suitable light to darkness ratio for plant growth is **14**: **10**. Pliny the Elder, (died AD 79) known as "father of botany" discovered stomata. He wrote; "When plants close their stomata they go to sleep". Delightfully inaccurate but still believed after 2,000 years! Upon stomata closure intense chemical activity begins: C3 and C4 plants grow at night while CAM plants grow during the day. 24 hours/day illumination prevents growth occurring.

Black shade cloth is considered Low PAR. It uniformly reduces light intensity. *Cryptanthus* under black shade cloth grow less vigorously compared to their siblings under coloured shade cloth. (Black shade cloth 50% protects the writer's orchids). Although black maybe best for an orchid house, coloured or white shade cloth is superior for a *Cryptanthus* house. Summer heat stress can be reduced by adding black shade cloth over the house.

Green shade cloth is low PAR and erroneously considered to be a useless colour. Green is a restive colour for human eyes and good for plant displays. Plants with red or brown pigmented leaves grow well under green shade cloth. The colour intensity of a green leaf may fade under green shade.

Beige is an excellent choice for the skin of a Bromeliad house. This colour discretely favours red leaves.

White shade cloth is classified High PAR. Valuable for its reflective characteristics when used under coloured shade cloth. A white shade house facilitates the use of colour patches placed over individual plants.

Cryptanthus can be induced to change in colour and shape with colour patches. Sources of material for patches are: Large onion net bags of colours including reds, orange and purple these are rubbish in retail shops. Net fabric used to make the tutu of girl's ballet dresses provide colours including blue and yellow. Pre-packaged vegetables are in both fine and coarse net bags of colours including red, green, yellow, violet and orange.

Yellow has the potential to make a red leaf become orange.

Red is a valuable addition when growing plants of tropical origin. Red light builds sturdy plants but under red shade cloth they look unattractive. Red confuses plant physiology and may deceive a plant that it is perpetually summer. Spring flowering plants often fail to flower. Green leaved plants are the most responsive of all plants to the red wave length.

Blue causes etiolating and protochlorophyll forms in small amounts. This is a colour for plants that originated in the temperate zone. When blue net is used to alter the appearance of *Cryptanthus* it is beneficial to be combined with fine net red or orange.

Black coloured leaves and flowers absorb all wave bands of light. Plants of this colour are usually the first to become heat stressed. Five sibling *Crypt*. 'Black Mystic' with brown coloured leaves (excess light) have been individually covered with net patches of black, purple, yellow, green and red. *Crypt*. 'Black Mystic' under a purple patch quickly returned to black. *Crypt*. 'Black Mystic' under the red patch was slower to become black followed by the black patch plant.

<u>Finally information is requested from the readers:</u> In the writers collection is a plant with the label *Crypt*. 'Lisa Vinzant'. All attempts to reproduce the colour of "The world's most beautiful Cryptanthus" have failed -- It continues to look like *Crypt. fosterianus*, a plant from which it mutated. It is unlikely that the plant is wrongly labelled. Perhaps a mutant named without being stabilised and has now reverted back to *Crypt. fosterianus*? Please, any suggestion of how to produce the advertised colour form is welcome. Also can anyone skite as to owning a *Crypt*. 'Lisa Vinzant' of true colour form?

#### **Novice Popular Vote**

1st Dave Boudier Aechmea 'Flame'

2nd Coral McAteer Neoregelia 'Red Macaw'

3rd Keryn Simpson Neoregelia 'Hannibal Lector' x concentrica

#### **Open Popular Vote**

1st John Crawford *Neoregelia* 'Bullis's Margaret'

2nd Laurie Mountford Vriesea 'Megan'

3rd Kay Daniels Neoregelia 'Bird Rock'

# **Judges Choice**

1st John Crawford Neoregelia 'Bullis's Margaret'

# **Decorative**

1st Helen Clewett 'Happy Crypteaster'

#### **BCR Cultivar Nothogenus (bigeneric) Name Changes**

Generated via Tillandsioideae DNA Studies, Barfuss et al paper published in Phytotaxa 279 (1), October, 2016.

Nothogenus list compiled by Geoff Lawn, BSI Cultivar Registrar, March 2017.

x Guzgoudaea x Racindsia x Sincortanthus

x Vriesgoudaea x Wallandsia x Sincorglaziovia

x Vrieslutheria x Wallfussia x Nidusincoraea

x Barvriesea x Zizkagoudaea x Sincoraechmea

x Guzlutheria x Sincoregelia

x Luthandsia x Sincorphytum

Bromeliad names are changing fast, check these sites for change confirmation: registry.bsi.org/index

botu07.bio.uu.nl/bcg/taxonList

#### Where do I Find the Dates?

www.bromeliad.org.au then click "Diary".

Check this site for regular updates of times, dates and addresses of meetings and shows in your area and around the country.

# BCR Genera Changes: Orthophytum / Sincoraea.

The following is a list of new Bigeneric name changes compiled by: Geoff Lawn, BSI Cultivar Registrar, March, 2017.

# I.C.N. Rules (Melbourne Code 2011) Article H.6, Clause H.6.2:

The nothogeneric name of a bigeneric hybrid is a condensed formula in which the names adopted for the parental genera are combined into a single word, using the first part or the whole of one, the last part or the whole of the other (but not the whole of both) and optionally, a connecting vowel.

Marri Marra

Old Name	New Name	
x Neophytum	x Sincoregelia	'Andromeda'
x Neophytum>	x Sincoregelia	'Aurora'
x Neophytum	x Sincoregelia	'Blushing Bride'
x Neophytum>	x Sincoregelia	'Burgundy Hill'
x Neophytum	x Sincoregelia	'Burgundy Thrill'
x Neophytum	x Sincoregelia	'Cosmic Blast'
x Neophytum	x Sincoregelia	'Ecstasy'
x Neophytum>	x Sincoregelia	'Firecracker'
x Neophytum >	x Sincoregelia	'Galactic Warrior'
x Neophytum >	x Sincoregelia	'Gary Hendrix'
x Neophytum	x Sincoregelia	'George H. Anderson'
x Neophytum	x Sincoregelia	'Lisanne Kiehl'
x Neophytum >	x Sincoregelia	'Lymanii'
x Neophytum	x Sincoregelia	'Medalist'
x Neophytum	x Sincoregelia	'Mollie S.'
x Neophytum >	x Sincoregelia	'Ralph Davis'
x Neophytum	x Sincoregelia	'Rising Tide'
x Neophytum	x Sincoregelia	'Shiraz'
x Neophytum	x Sincoregelia	'Supernova'
Orthophytum	Sincoraea	'Andrea'
<i>Orthophytum&gt;</i>	x Sincorphytum	'Blaze'
x Orthotanthus	x Sincortanthus	'Blazing Bonsai'
x Orthoglaziovia	x Sincorglaziovia	'Rosita'
x Ortholarium	x Nidusincoraea	'Selby'
x Orthomea >	x Sincoraechmea	'Powderpuff'

Indicates - - - > those most affecting our collections that will need their labels changed.

#### **Etymology of New Genus Names:**

**Barfussia:** Michael H. J. Barfuss, University of Vienna, Austria. Systematics (Taxonomy), Botany, Evolutionary Biology.

Goudaea: Eric Gouda, Utrecht University, Netherlands.

Eric is a Dutch botanicus, he works as a collection manager at the Botanic Gardens Utrecht, he specializes in the bromeliad family, especially the genus *Tillandsia* and Bromeliads from the Guianas. He has numerous publications on bromeliads in scientific journals to his name.

*Gregbrownia*: Gregory K. Brown, University of Wyoming, Laramie, USA. Botany, Evolutionary Biology, Systematics (Taxonomy).

*Jagrantia*: Jason R. Grant, Université de Neuchâtel, Switzerland. Curator of the Herbarium at the Université de Neuchâtel, Switzerland. Research on the Arctic, temperate and tropical floras, plant taxonomy, systematics, evolution and morphology, mainly of *Bromeliaceae* especially *Tillandsioideae*.

**Josemania:** José M. Manzanares is a Spanish Botanist from Quito, Ecuador, is a leading authority on Ecaudorian *Bromeliaceae*. He has published two of four volumes of his books titled "Jewels of the Jungle: *Bromeliaceae* of Ecuador".

**LemeItonia**: Elton M. C. Leme is an environmental lawyer and is a leading authority of Brazilian *Bromeliaceae*. A author of numerous publications in botany e.g. Bromeliads in the Brazilian Wilderness, Bromeliads of the Atlantic Forest.

*Lutheria*: Harry E. Luther (1952 – October 17, 2012) was an American botanist He is recognized internationally as an expert in bromeliads (*Bromeliaceae*). He described more than two hundred new bromeliad species and has authored more than 200 scientific and popular publications.

**Wallisia:** Gustav Wallis (1 May 1830 – 20 June 1878) was a German plant collector, who introduced over 1,000 plant species to Europe, many of which were named after him.

**Zizkaea:** Georg Zizka, professor of Botany at Goethe-University Frankfurt/Main, Germany.

**Pseudalcantarea:** named for resembling the flowers of Alcantarea.

**Stigmatodon:** from the Greek words stigmatis plus odon, the later meaning tooth, in reference to the irregularly denticulate to laciniate (toothed) stigma lobe margins.

Acknowledgements: Barfuss et al and Wikipedia