

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

Edition: September 2023

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery  
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Phone (02) 6683 4188

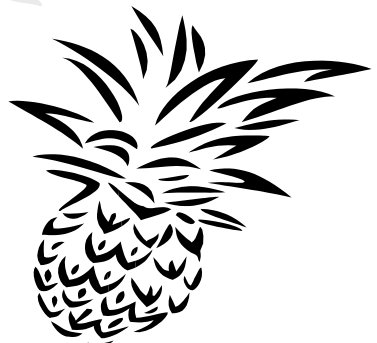
Study Group meets the third Thursday of each month  
Next meeting October 19th 2023 at 11 a.m.

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## **Meeting 17th August 2023**

The meeting was opened at approximately 11.00 am  
The 10 members and two visitors present were welcomed.  
Two apologies were received.

### **General Business**

Fire ants were the main topic of discussion this month with our concerns that they would advance further south from Queensland into our NSW Northern Rivers area. Plant movement restrictions from Queensland south across the border into NSW has been implemented by the NSW Department of Primary Industries. Bans have been imposed attracting huge fines if you are caught not obeying the "Potted Plant" certification and treatment rules, please obey the rules.

However due to a considerable amount of work done by the social media face book group [Fire Ant Restrictions SEQ](#), their discussions with the DPI gained an exemption for bare rooted and washed bromeliads.

Dear Prue,

The current measures in the fire ant emergency order do not apply to plant material in the absence of soil. Bare rooted bromeliads are therefore not included in the definition of potted plants and the control measures in the Emergency Order do not apply to them. I note that the offsets are washed thoroughly before being posted which is good biosecurity practice. Making sure the plants are free of ants before they are posted to NSW is also good practice.

Kind regards,  
Pauline

### **Dr Pauline Lenancker**

Invasive Species Officer  
Invasive Species Biosecurity Unit  
Department of Primary Industries  
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This exemption is great news for those who purchase plants via mail-order. It is the buyers responsibility to advise their supplier that all plants purchased must be completely clean of all traits of potting mix/soils. In addition it would be safer to trim all roots off the plants also and thoroughly wash the plants and dry them before packaging. It is most important to keep all plants off the ground at this stage also.

At the upcoming plant shows and sales in SE Queensland, we would advise our members to consider them as 'look and see events' only as it would be safer not to buy potted plants and risk heavy fines when crossing the NSW border. If you feel you may not be able to avoid the temptation to buy plants, remember it's your responsibility to seek DPI certifications prior to attending the show, these are very costly. Alternatively you could bare root your purchases, remove all the potting mix and roots and wash the plants thoroughly **before** returning to NSW.

**Notice from:** The Bromeliad Society of Queensland monthly Newsletter  
Upcoming Event: Spring Show will be on 30th September and 1st October, 2023 at Genesis Christian College, Youngs Crossing Road, Bray Park.

### **Fire Ant Warning:**

People purchasing plants need to be aware that they need a certificate to take plants over the border and sellers in Fire Ant zones need to treat their plants before they bring them to the show.

There is a link: <https://www.fireants.org.au/treat/business-and-industry/materials-that-can-carry-fire-ants/potted-plant-management>

Remember Queensland's fire ants are for Queenslanders don't bring them home!

### **Show, Tell and Ask!**

Kayelene asked about growing in a terrarium - yes you can.

Cryptanthus are often referred to as 'Earth Stars', they are terrestrials, meaning they grow in the ground supported by soil, they are not epiphytes, they do not grow in trees, nor are they a water plant. A good quality potting mix is required when adding your plants to your terrarium and a little fertilizer, water sparingly and put the lid in place. A good terrarium will create its own microclimate not needing to be continually opened and watered for years. If growing Cryptanthus as a potted plant they should not be under potted, they can develop a good root system often broader than the plant itself. Again, use a good quality potting mix, one similar to African Violet mix. One of our visitors David Fraser recommended fertilizing weekly will benefit them greatly. It is important to keep them moist but not wet. Try using trays filled with gravel and water to sit the pots on, this helps maintain humidity for the plants. Grace Good suggested sitting them on damp carpet which will act like capillary matting and grow them in a brightly lit location.

Can I grow my Tillandsias in a terrarium - NO, not if it is sealed with a lid on it. Tillandsias require good air flow, they will not get this in a sealed environment. Growing indoors isn't always highly recommended either unless by an open window allowing air flow. You might say "what about when they're in a plastic covered tunnel house or glass house, to maintain good air flow these growers use fans for cross ventilation. Tillandsias need to go through a wet /dry cycle.

If good air flow is not maintained for your Tillandsias and they are constantly damp, the normal function of their trichomes can not be maintained, taking up CO<sub>2</sub> and O<sub>2</sub> only sparingly when wet and they may perish if kept moist for long periods. Fortunately, well-illuminated sites tend to be dry. Xeric forests cast light shade because their leaf area indexes are low. Of course, canopies are denser in moist habitats. Here air plants may still be found on the edges of crowns where PAR (Photosynthetically Active Radiation, the spectrum of light used in photosynthesis) continues to be plentiful and there is sufficient air turbulence to dry shoot surfaces shortly after a storm passes. Thus the combination of low light use efficiency in dim exposures, high drought tolerance and susceptibility to damage by too much moisture, presents no problem to the air plant in its preferred habitat.

Atmospheric Tillandsia trichomes have achieved the highest degree of structural complexity with elaborate winged shield cells. Atmospheric plants live exclusively from the humidity and nutrients present in the air, these are often so densely covered in trichomes that the plants appear silvery-white when dry, e.g. *Tillandsia tectorum*. To allow these plants to survive and flourish in what could be considered a no-mans land for life, the basic concept of trichomes has been exploited in several important ways to aid survival:

- To reflect high intensity light effectively which would otherwise burn the sensitive tissue and organs of the plant.
- To shield the leaf pores against water loss and effectively to intercept and absorb moisture and dissolved nutrients from the surrounding atmosphere.

Many bromeliads which take up water and nutrients from the soil via their root system, trichomes are simple in structure and mainly located on the undersides of leaves around the stomata or leaf pores (a breathing pore) as a protective device against transpiration or water loss. In most bromelioids, but also in many water and nutrient impounding tank-type tillandsioids, trichomes have become more complex in their structural arrangement and have reached their greatest accumulation in the region of the tank where they now function in an analogue manner to roots in more conventional plants by absorbing water and nutrients.

Information gleaned from: Growing Bromeliads - The Bromeliad Society of Australia.  
The Biology Of The Bromeliads - David H. Benzing.

Gary was asked about the various materials he's using for mounting his Tillandsias on. He explained the issues he had using cork which is a good natural material, the plants readily attach to it except it attracted a grub which was eating everything. He tried other natural materials with good success until the dreaded grub arrived again. Various treatments he tried were unsuccessful so he turned to composites, sawdust mixed with recycled plastics forming 'timber' decking boards e.g: Ekodeck and Ekologix. Both materials are easy to cut and drill to mount Tillandsias on. So far Gary has been very pleased



with the results he has achieved: no grub, rotting or deterioration of the material, its longevity appears good. Best of all the plants are happily attaching their roots to these materials as can be seen in this photo of healthy root growth.



Gary is using cable ties as additional support to help hold the plants in place until the E6000 glue dries. More recently he has been trialling RYSET Softy Plant Tie with good success.

### **Cork - From Bark to Tillandsia Mount**

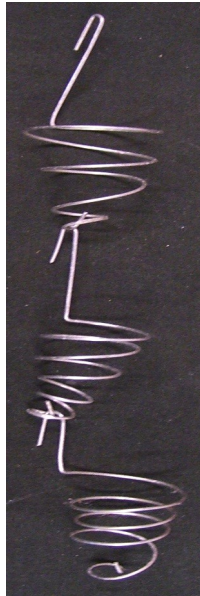
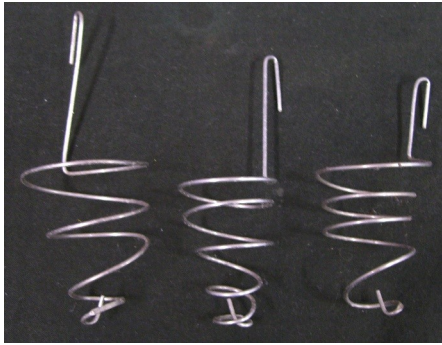
Cork is the bark taken from the *Quercus suber* tree which is grown from an acorn in the forests of southern Portugal, Spain and other countries from around the Mediterranean. Being the only tree in the world that allows it's bark to be cut off whilst not doing the tree any harm. This process can be repeated every nine years which makes this a very special and valuable tree.



These trees can live for 200 years or more, however the first cut known as 'virgin cork' can only be taken after the tree is 25 years old. This is the cork slabs that we get and use for mounting our Tillandsias and other small bromeliads on. The next cut is often referred to as the 'second cut' or 'best cut'.



Another alternative to mounting on timbers is coiled aluminium wire hangers for your Tillandsias or mini Neoregelias. Plants can be hung individually or chain hung.



Brought in for identification was a plant with stolons to 40cm long, it was identified as: *Neoregelia sapiatibensis* Pereira and Penna 1985, found in the State of Rio de Janeiro, Brazil.



Another query, the smaller plant of the two (left) has green leaf blades with inner half red, *Neoregelia compacta*. The larger plant presented (right) has leaf blades green near the apex and inner half red with small green spots, it can



also show some faint marmoration on the lower inner part of the leaves is *Neoregelia macwilliamsii*.



Michelle brought along a plant with a couple of issues. Firstly it wasn't moved from its sunny winter position and got burnt. Also it has some poor variegation on one side. No not a 'novar' (no variegation) just a poorly variegated plant. Keep the best side facing to the light and hope for better offsets.

***Aechmea brassicoides*** by Harry E. Luther from: Journal Bromeliad Society Vol. 45, No.5, 1995.

*Aechmea brassicoides* was described by Baker in 1882. The type and all subsequent collections have been from the vicinity of Kaietur Falls in Guyana. The plant is usually an epiphyte.

Apart from having a somewhat attractive inflorescence, this species presents a notable growth habit reflected in its specific name. The "Cabbage Bromeliad" produces, at maturity, a series of densely overlapping, often imbricated leaves that effectively create a seal over the centre of the rosette. The protected hollow formed may be advantageous in acquiring an ant colony.



*Aechmea brassicoides*  
1st Judges Choice Mitch Jones  
photo by Ross Little

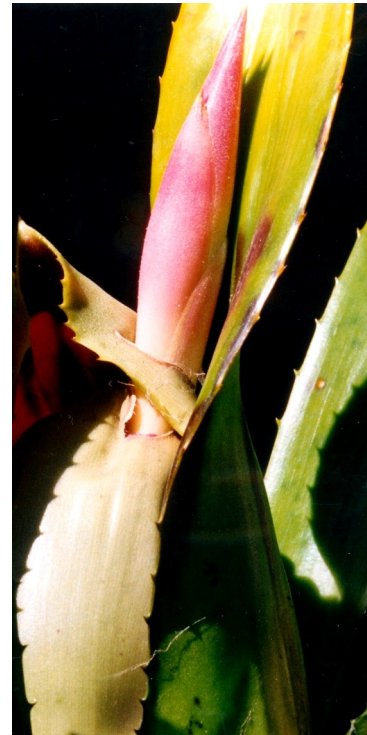


Photo - Catlan 17013a

Many epiphytes in areas of poor soil form relationships with ants as part of their nutritional strategy. Ants bring all sorts of debris to their nest; this nutritious compost is usually rich in nitrogen and other minerals important for plant growth. Epiphytes with ants often grow more strongly than those without ants.

When *Aechmea brassicoides* comes into flower, the developing inflorescence punctures one or more of the overlapping, centremost leaves. This condition sometimes results in a plant with an inflorescence growing from one side of the rosette instead of straight from the centre. Judges should take note !





Vriesea unregistered Dillings hybrid  
1st Open Michelle Hartwell



*Tillandsia* 'Cotton Candy'  
1st Tillandsioideae Gary McAteer



*Neoregelia* 'Lani'  
grown by Kayelene Guthrie



Vriesea hybrid (Rainbow Bay) ???  
grown by Keryn Simpson



'Living Tree'  
1st Decorative  
Coral McAteer



'Botanica'  
by  
Mitch Jones



*Pseudalcantarea* 'Silver Candelabra'  
grown by Mitch Jones



*Aechmea macrochlamys*  
grown by  
Helen Clewett  
Note the large/  
ample pink floral  
bracts which is  
where it gets its  
name that means:  
large cloak or  
mantle.



*Tillandsia juncea*  
grown by Keryn Simpson





**Vale: William (Bill) Morris, BSI Honorary Trustee for over 61 years.**

Bill, another of our great pioneers passed peacefully on the 30th August 2023, aged 95 years. He was first noted as a BSI Honorary Trustee in The Bromeliad Society Bulletin of January - February 1962. In 2012 we published the following article to celebrate Bill's 50 years as a BSI Trustee.

**Bill Morris -- 50 years as a Trustee to the BSI.**

Bill first began collecting Bromeliads in the early 1950's, his first plants being four Billbergia's and a *Aechmea recurvata*. Bill found it difficult obtaining plants and finding other interested people. Bill's father was in the U.S.A in the early 1950's and was able to make further contacts for him. Dr. Lyman Smith directed Bill to the BSI, which he joined and from where he was able to contact other growers in the U.S.A. and Australia. In those early days he obtained plants in Australia from Charles Hodgson who was the first Australian to be made a Trustee to The Bromeliad Society, he also obtained plants from Charlie Webb who grew from seed and also imported plants.

In 1962 Bill was inducted into The Bromeliad Society as an Australian Trustee. This same year, Bill and 35 other interested growers in Australia got together for a meeting at the Terrey Hills home of Mr. and Mrs. Duncan, at this meeting the decision was made to form a Society. The following year, 1963 saw the formation of what is now known as The Bromeliad Society of Australia Inc. Having it's first general meeting on the 6th of July 1963 at the YMCA in Pitt Street Sydney with 45 in attendance, Bill became one of the two Vice Presidents.

Bill offers a debt of gratitude to overseas growers who sent seed to himself and many others in Australia. These include Mulford Foster, Julian Nally - Florida, David Barry - California, Charles Lancaster - Costa Rica and Adda Abendroth - Brazil.

There are probably many others, but these, particularly Adda, supplied seed of an estimated over 200 species of Bromeliads for cultivation in Australia. Seed was also sought from commercial suppliers in both Brazil and Germany.



Bill with some of his Billbergia hybrids in his friend Val Honeywood's shade house.  
Photo by Val Honeywood

Bill has been responsible for the creation of many hybrids in several genera, mostly in *Neoregelia* and *Billbergia*. He grew many plants from the introduced seed, one of note was out of a seed batch he received from Adda Abendroth of *Neoregelia concentrica*, from this seed batch Bill got an albomarginated plant now known as: *Neo. 'Bill Morris'*  
photo by Ross Little

Article information gleaned and summarised from:

**The Early Days** by Bill Morris.  
Hunter District Bromeliad Society Inc.  
Newsletter August 1998.



**BSI Honorary Trustee: William (Bill) O. Morris by Geoff Lawn**

Hobbyist Bill Morris became a BSI Honorary Trustee in 1962 and has been involved in bromeliads for over 50 years, but his commitment and many achievements have been little known outside Australia.

Bill lives in rural Medowie (near Newcastle), New South Wales and began growing bromeliads about 1953, joining the BSI in 1957. He was a prolific correspondent with early pioneers Mulford Foster, Frank Overton, David Barry, Charles Lancaster, Fred Gerber, Adda Abendroth, Charles Hodgson, Muriel Waterman, Richard Oeser, Ervin Wurthmann, Julian Nally, Doering & Eipper in Brazil and later Elton Leme.

In total Bill raised and introduced into Australia over 150 bromeliad species with seed supplied mainly by Barry, Lancaster and Abendroth. Bill traded cycad seed for bromeliad seed with Foster and they had a friendly rivalry on hybrids, Bill producing his first bigeneric (X *Neobergia* 'Noddy') in 1960, before Foster. When the BSI conducted a world-wide collection census in the early 1960s Bill had one of the most varied with over 450 species and hybrids. At that time species forms

grown generally outnumbered hybrids. Such was his enquiring mind on correct names, Bill is the only Aussie who has a collection reference in the Smith & Downs Bromelioideae Monograph (1979), referring to *Aechmea gigantea*, page 1799.



By 1962 rising bromeliad interest in Australia warranted organising formal gatherings. Bill became a founding member and first Vice President (1963-65) of the Bromeliad Society of Australia which is based in Sydney. A second term as Vice President was in 1988-90, during which he was appointed relieving President in 1988-89. Frequent guest speaker, show judge, committee member for many years and Bromeletter articles writer were other voluntary duties Bill undertook. Life membership was awarded in 1983.

The establishing of Aussie bromeliad societies and study groups in most States by the late 1970s initiated the concept of biennial national Conferences to unite growers regularly and to share knowledge on a wider scale. Furthering the cause, Bill became an Australian Conferences speaker on the following topics in Sydney (1983): "The Early Days of the Bromeliad Society of Australia"; Brisbane 1985: "Tillandsias and the Australian Climate"; Adelaide (1987): "Billbergias".

Nurturing local regional interest in bromeliads, Bill founded and was first President of Hunter District Bromeliad Society in 1985-86. He was a regular presenter and discussion leader on many subjects, including identification, at meetings. The Vice-Presidency Bill held in 1987-93. Life membership was awarded in 1989.

All the while, on the home front Bill bred 57 hybrids, mainly neoregelias, billbergias, plus a few vrieseas and bigenerics. Cultivars he produced in the 1960-93 period include *Aechmea* 'Terrace Red Sunset', *Billbergia* 'Bill's Baby', 'Bill's Bonanza', *Neoregelia* 'Black Beauty', 'Stormy Forest', X *Aechopsis* 'Newk' and *Vriesea* 'Plain Lubberly'. Bill raised many Brazilian species from seed in the 1960-1970 period. In 1958 Bill developed from his variegated seedling the famous Aussie marginated clone of *Neoregelia concentrica*, only recently registered (Jan. 2007) as *Neo*. 'Bill Morris'.

Always active, Bill joined the Bromeliad Society of New South Wales in 1983. He was "grandfathered in" as a very experienced judge and conducted several judging schools in 1994-97. Guest speaker and show judge were roles in which he excelled. In 1998 life membership was bestowed upon him.

Hybridists are seldom forthcoming in detail on paper about their breeding methods or programs but Bill outlined the basics in his articles and invariably had written technical discussions on the finer points with Derek Butcher in *Bromeletter*.

A fourth group Bill became involved in was as a charter member of Central Coast N.S.W. Bromeliad Society (1982); guest speaker and show judge were again his particular forte. Life membership was granted in 1992.

In the past decade Bill's horticultural interests have diverted more into begonias, clivias and breeding terete *Aeridovanda* orchids for cool conditions, indicative of his life-long passion for specialising in various exotic plants. What a devoted long-time leading ambassador for the bromeliad field he has embraced and served.

#### **Acknowledgements:**

Many thanks to Bill Morris, Derek Butcher, Peter Franklin and Alice Williams for information and photo of Bill (87) by Olive Trevor 2015.

#### **References:**

BSI Cultivar Registry online: <http://bsi.org/>

Butcher, D. 1997. Checklist of Australian Bromeliad Hybrids and Cultivars (5th. ed.). "Problems with breeding and interpreting results" (article author: B. Morris). Hagan, F. 1997. "The First Fifteen Years". Central Coast N.S.W. Bromeliad Society: <http://www.bromeliad.org.au>

Morris, B. 1983. The Early Days. Bromeliads 2 Conference Proceedings. Bromeliad Society of Australia.

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Morris, B. 1987. Billbergias. Bromeliads 4 Conference Proceedings. Bromeliad Society of South Australia.

## Variegated Cultivars That Are Sports by Derek Butcher

Because even the most stable of variegates sometimes loses variegation or changes the form of variegation we must look at the way that these cultivars are currently named so that they can easily be identified.

The only reference in the ICNCP rules is in Section 17.15 which states: "The words 'variety' ( or var.) and 'form' may not be used in new cultivar epithets. However, when var. denotes variegated the epithet is established with the word 'variegated' written in full". This is not that informative perhaps because variegation plays a very small role in the general world of plant cultivars. Variegation is much more specialised in the Bromeliaceae where the following non-Latin adjectives could apply:

**marginate** (outside stripes)

**mediate** (solid median stripe)

**variegate** (varying width of stripes)

**striate** (fine lines)

There are, of course, other adjectives that could be used but regrettably, I do not see us getting a general consensus on what ones to use.

The ICBN rules cover like-plants from the wild where the "normal" version is described at species level and the variegated form at the next level e.g: *Aechmea coelestis* v. *albomarginata*.

If you have a plant without variegations it becomes just *Aechmea coelestis*! This is easy to understand.

## How Do We Follow the Instability of Cultivar Variegates?

The word 'Sport' has been in horticultural use for many years but has rarely been formally applied to Bromeliads. A 'Sport' is defined as a visible asexual mutation and occurs in bromeliads where offsets (or pups) are different to the 'Mother' plant. To my mind there is a closer relationship between a 'Sport' and a 'Mother' plant, than that between siblings in a grex and we should record this fact when it occurs.

While variegation can occur in the seed raising stage this is NOT included in this definition.

United States Plant Patent law covers all offsets of a patented plant whether sports or not but is broken by seed raising and this seems to be a firm basis to start from.

The phenomenon of 'Sporting' has become more prevalent in the past 10 years or so because of the avalanche of named variegated plants which are

notoriously unstable. Just what do you do with an offset that is different to 'Mother'? To be strictly correct this should be destroyed but in reality they are not destroyed but even nurtured!

As an example, *Aechmea* 'Ensign' (See Baensch Blooming Bromeliads p.44 ) should be an albomarginate form of *Aechmea orlandiana*. It was raised by seed where the mutation occurred. Note that *Aechmea* 'Ensign' is not a sport of *Aechmea orlandiana*! A sport of Ae. 'Ensign' is 'Reverse Ensign' which has a white median line. These will be linked in the Bromeliad Cultivar Registry (BCR) by a 'Sport' indicator. Any offset of Ae. 'Ensign' which is not albomarginate (or reverse) should in my mind be called Ae. 'Ensign' sport until such time that it 'stabilises' and someone gives it a name. Even if it loses its variegation it should still be called Ae. 'Ensign' sport and NOT *Ae. orlandiana* because it still retains the erratic genes and could easily revert back to an Ae. 'Ensign'

Many of the registered variegated neoregelias could well have developed as sports and not as siblings within a grex but the registration form did not allow for this situation. This omission has now been rectified.

Plants that have sported directly from a species include *Billbergia* 'Perriam's Pride' which was originally *Billbergia distachia*.

So please use the word 'Sport' as a temporary measure to cover aberrant offsets. A more direct option is to use the epithet 'Novar' which indicates that a previously named variegated plant has lost its variegation and which could well be just a temporary aberration. For example *Vriesea* 'Gunther Novar' which has a propensity for losing its stripes!

This solution will make it easier for the 'Show Bench' to accept the inevitable non stable plants that do not agree with the original description or photograph by the quick addition of an epithet. It will also help sellers (and purchasers!) of a plant to know its true relationship with its 'Mother' in that temporary period before possible new naming.

## When is a 'novar' a 'novar' or NOT a 'novar' by Ross Little

The term 'novar' was coined in the late 1990s by Dennis Cathcart of Tropiflora Nursery in the USA for the non variegated offsets of normally variegated plants. Reason being, if one removes a plain green pup off a variegated plant and sells it, the buyer knows there is a chance this plant may produce a variegated pup sometime in the future. If it does it is not a sport (something new) but the original variegation returning. The term 'novar' means exactly that, **NO** variegation, so if a plant has one or even two leaves with a single fine stripe on them it is **NOT** a 'novar' but a depauperate (poorly) variegated plant.



## **Open Popular Vote**

1st	Michelle Hartwell	Vriesea - unregistered Dillings hybrid
2nd	Keryn Simpson	Vriesea - hybrid ('Rainbow Bay') ???
3rd	Kayelene Guthrie	<i>Neoregelia</i> 'Lani'

## **Tillandsioideae**

1st	Gary McAteer	<i>Tillandsia</i> 'Cotton Candy'
2nd	Keryn Simpson	<i>Tillandsia juncea</i>
3rd	Mitch Jones	<i>Pseudalcantarea</i> 'Silver Candelabra'

## **Decorative**

1st	Coral McAteer	"Living Tree"
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## **Judges Choice**

1st	Mitch Jones	<i>Aechmea brassicoides</i>
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### **Web Links for Checking Correct Identification and Spelling ?**

Bromeliad Cultivar Register (BCR): <http://registry.bsi.org/>

Refer to this site for correct identification and spelling of your hybrid or cultivar.

Bromeliad Species Database (BSD): [www.bsi.org/members/?bsd](http://www.bsi.org/members/?bsd)

Refer to this site for species identification, photos, descriptions and more.

New Bromeliad Taxon List : <https://bromeliad.nl/taxonlist/>

Refer to this site for latest species name changes and correct spelling.

Bromeliads in Australia (BinA) <http://bromeliad.org.au/>

Refer to this site for its Photo Index, Club Newsletters many with Table of Contents Index and there's Detective Derek Articles.

Keep these web sites set as desktop icons for quick reference access.

### **Where do I Find the Dates ?**

[www.bromeliad.org.au](http://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.