

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

Study Group meets the third Thursday of each month

Next meeting May 18th 2019 at 11 a.m.

Venue: PineGrove Bromeliad Nursery
114 Pine Street Wardell 2477
Phone (02) 6683 4188

Discussion: April 2019

Dave, Keryn and Debbie talk on their
Singapore Garden visits

Editorial Team:

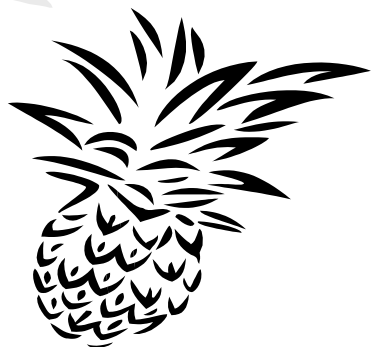
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Meeting 21st March 2019

The meeting was opened at approximately 11.00 am
The 15 members were welcomed.
A total of two apologies were received.

General Business

Ross welcomed all to the meeting and reviewed the Newsletter. As there was a lot of discussion at February's meeting about cultivars, Ross included notes on cultivars in this month's (March) Newsletter.

Drew advised that the Newsletter index is now finished up to this month. If anyone has copies of the Newsletter from January and November 2010, and for February, April, May and October 2009, could you please bring them in or email them to Drew, as we have not been able to locate copies of these editions. A link to the index is available on the Bromeliads in Australia web site or readers can contact Drew at drewmaywald@gmail.com and he will share the link with you.

The March Newsletter contains an article by Lloyd Godman about Tillandsia roots. Lloyd has produced an extensive e-book on Tillandsias and it was recommended that members contact Lloyd direct to purchase an e-book copy at: lloydgodman@gmail.com

Lloyd has been experimenting with large green walls in several sites around Melbourne to see how effective Tillandsias are of removing pollution. Ross reminisced seeing in some Central American cities, Tillandsias growing on trees lining busy streets and despite being black from diesel fumes they are still growing, flowering and reproducing.

Ross mentioned that he would like to see landscape gardeners and interior designers use Vrieseas and Guzmanias in office buildings as they put out oxygen at night.

Show, Tell and Ask!

John mentioned that *Tillandsia multicaulis*, which he brought in the previous month, needs a lot of water and will grow larger and produce more flower spikes if it is fertilised.

There was a discussion about *Aechmea* 'Roberto Menescal' and *Aechmea* 'Black Zombie', the later being a reverted sport of 'Roberto Menescal'. It was suggested that if *Ae.* 'Black Zombie' was showing variegation on the lower leaves only that these leaves should be removed to keep the plant true to form.

A question was asked about why some stoloniferous Bromeliad pups grow down and then turn upward e.g. *Aechmea fosteriana*, *Ae. orlandiana*, *Ae.* 'Bert' etc. A number of theories were suggested including:

- The pups were seeking moisture.
- They would get too much light if they moved up generation after generation.
- The pups were moving further away from the mother plant.
- The pups were seeking to stay in the same light band as the mother plant by first going down, then turning upwards toward mother.
- They might go down looking for other points of contact on the branch, then attachment if lucky. With the extra points of attachment the more stable the whole clump would be. If they went straight upwards then the clump would be top-heavy and more liable to topple over/fall off/die on the ground.

John mentioned that some of his Alcantareas tended to move towards the side of a pot even though he planted them in the centre of the pot. In habitat, these plants lean in towards the side of the cliff or rock face that they are growing on. There was much discussion about why this happened and members put forward the following reasons:

- The Alcantareas were trying to get more root anchorage on the rock.
- If the Alcantareas grew out away from the rock face it may not be able to support the weight of the plant when full of water causing it to fall to the ground.
- The Alcantareas get moisture from the cracks in the rock.
- When the rock gets warm from the sun during the day, the Alcantarea grows in towards the rock face to use the warmth of the rock face at night.

Lots of good thoughts about both issues raised, have any of our readers any other suggestions ? We would be pleased to hear them.

Ross showed us a *Vriesea elata* which was pupping from the trunk of the plant. These plants are an upper pupper, but after 4 or 5 generations pups will form from the trunk. These pups can then be removed and repotted.

Ross also showed us *Vriesea* 'Ladd's Elation' (unreg.) and *Aechmea* 'Loie's Pride' both of which had a large trunk and were growing quite tall. These plants can be repotted in a deeper pot or taken out of their current pot, the bottom half of the root ball cut off, and the plant repotted. New roots will form along the now buried trunk.

A discussion was had about how to prepare plants for mailing. Some growers feel it is best when mailing plants to not wrap them in plastic or alfoil as they may sweat and rot. The best way to mail pups is to sit them upside down overnight allowing all water to run out from the leaf axils, wrap them in newspaper and place them in their box or envelope dry. Just like when pups are removed and the cut wound is allowed to dry before planting. The pups can be rehydrated in a bucket of water with a little sugar added when they reach their destination. The roots on the pup may die but the pup will grow its own new roots from the base / heel of the plant.

True to type (species x same species) plants were discussed and it was agreed that true to type cannot be guaranteed from garden grown/pollinated plants as the pollinators, bees, flies, birds, the wind etc, move from plant to plant seeking pollen. Some Bromeliads are self-pollinators and they can be distinguished by having virtually all the seed pods filled with seed, while Bromeliads relying on insects etc. for pollination may only have one or two fertile seed pods. If a deliberate species pollination is wanted it is a good idea to do a controlled pollination not just leave it to nature. Dabbling with pollen in the garden doesn't guarantee the pollen transfer will not get corrupted with foreign pollen. A controlled pollination can be done by placing both plants in a 'sealed' room or cover the pollinated flowers with a stocking or similar to prevent access by insects. Whether it's self, human or insect intervention one should always assess the results at flowering.

Keryn brought along *Aechmea recurvata* which had a number of seed pods and asked about removing the seeds. Ross demonstrated that if the seed pods are very dry they need to be split open and the seeds scraped out. If the seed pods are still fresh the seeds can be squeezed out into a jar of water and shaken around to remove any gel / pulp on the seeds. The water then needs to be drained off and seeds poured onto paper towel to dry.

Ross also showed how the seeds can be squeezed into a couple of tablespoons of coconut fibre fines, mixed thoroughly with the coconut fines then sprinkled on a bed of wet coconut fines that has been sanitized (with boiling water or putting in a microwave oven for example) in a seed raising container. A small amount of water can then be gently sprayed onto the seeds, an atomizer bottle is good for this step, then put the lid on the container and place it in a well lit area. Growers may need to add a small amount of water once a week if the coconut fibre dries out. Keryn and Drew were given samples to try growing and report back to the Group with their results.

Most importantly when growing seed is to keep: good records, labels in trays or pots and notes in a hybridizing/seed growing record book, also photos help.

Care needs to be taken that mould does not grow on the seeds while in the pot or while they are drying out. Mould can be treated by spraying the seeds with tablets used to sterilize babies' bottles (Milton Tablets), dissolved in water, or by applying a weak spray of condy's crystals (Potassium Permanganate) to the seeds. Condy's crystals are available from chemists and some hardware stores and plant nurseries.

Reading here about true to type seed pollinating and seed growing reminded me of Keryn's *Aechmea recurvata* and an issue raised during the month. I was asked if I knew of a plant named *Ae. recurvata* 'Buchanans Black', there was an accompanying photo which reminded me of two plants we dealt with in 2011. These were *Ae. 'Blush'* supposedly *Ae. recurvata* x *Ae. orlandiana* but grows true from seed, cross not achieved, the second was *Ae. 'Cardinalis'*, both these plants look very much alike. There is no record of a 'Buchanans Black' in the record books at PineGrove. Fortunately a well known Northern NSW grower owned up admitting she bought a *recurvata* from June Buchanan many years ago, when wanting to sell some at a Gold Coast Society meeting she named it 'Buchanans Black' due to its black seed pods. It's a good lesson on not to adopt a "pet name" or nickname of a particular cultivar/clone without registering it after consulting the source, the breeder and / or supplier, as it may be registered later with a different name for the same clone -- see *Ae. 'Blush'* on the BCR in this case. If by chance any readers have a *Ae. recurvata* in their collection or know of one tagged as 'Buchanans Black' change it to *Aechmea 'Blush'*.



Aechmea 'Blush' and *Aechmea 'Cardinalis'*



Black seed pods giving it "the pet name"



Our Decorative section was all lit up this month with this mini Neoregelia, to complete the candelabrum Drew Maywald wired it up with lights.

Dave asked a question about using sea weed mix as a fertilizer, John explained that sea weed mix conditions the soil and strengthens cells on a plant. As a soil conditioner it is taken up by the micro-organisms in the soil, and the roots of the plant take up the waste from the micro-organisms. (Article starting p.13)



Keryn brought in some plants for identification and while not all of them were able to be identified, it was agreed one she had was *Tillandsia velutina*. In the group photo was one from the *Nidularium procerum* complex (top left), Neo. Hybrid unknown (top right) Neo. 'Treasure Chest' (bottom left), possibly *Vriesea* 'Purple Cockatoo' (bottom right).

John showed a group of *Wallisia cyanea* which all had flower spikes on them. The flowers on each plant vary from blue, purple, white and pink, depending on the plant. John is also experimenting with putting water crystals half way down the pot for *Wallisia cyanea* (previously known as *Tillandsia lindenii*).



'Rays of Pink'
shown by Keryn Simpson



'Birds on the Tillandsia Stump'
shown by Helen Clewett

Tillandsia 'Temascal'

by Derek Butcher June 2017

Recent flowering of this plant by Ray Clark in Australia has prompted me to give as much detail as I can while registering the name in the BCR. Plants identified as being *Till. capitata* are wide ranging with much discussion but no action as to the differences between those in Cuba to those found in the mainland particularly Mexico. When we do get detailed information this should be recorded at least as a cultivar. This plant seems to be widely grown in Australia with the main originating source being Tropiflora.



Tillandsia 'Temascal'
shown by Sue Mackay-Davidson

In this case we go back to 2002 (or was it before?) when Tropiflora Nursery in Florida found a distinctive *Till. capitata* near Temascal, Mexico (Comment from Dennis Cathcart — "Our plants have a much longer scape, but we are not growing them as severe as you. The plants in nature were in deep shade, on a cliff face, and had leaves about 30 inches long. Ours are grown brighter, but still are quite large".) and these were made available to keen Tillandsia growers including Len Colgan from Adelaide. Len's plant flowered with a short scape (peduncle). Two years later, Renate Ehlers visited the area and found the plant. She had collected her plant/s in Mexico, Oaxaca, Temascal 150m on rocks EM 040403, 26-01-2004. On returning home to Germany she was able to examine the collection carefully and decided they were the same and possibly of species status.

What I found a bit confusing was where the two collections were actually made. Dennis tells us it was near Temascal south of Vera Cruz which it is but actually in the state of Oaxaca. In any event Renate had examined both forms and considered them as being the same.

Plant to 20cm high with top leaves turning red at flowering. Leaves to 20 cm long. Peduncle to 4cm long. Inflorescence compound with about 5 spikes each with 2 flowers.

Remember that we are separating on geographical terms and a plant loosely called *Till. capitata* 'Oaxaca' may well be the same but this should be checked against the photos in the BCR. There is also a similar plant said to be from Cuba but if it was actually collected in Cuba then it needs to be looked at separately.

There is a possibility that this will be published under the ICN rules in the Journal 'Die Bromelie' some time in the future.



Dyckia hybrid ??
1st Open and Judges Choice
Keryn Simpson



Neoregelia 'Manoa Beauty'
1st Novice Steve Davidson



Vriesea fosteriana var. *seideliana*
grown by Sue Mackay-Davidson



Aechmea 'Roberto Menescal'
grown by Ross Little



'Rub-a-dub-dub 3 Broms in a Tub'
1st Decorative John Crawford



Neoregelia 'Tom Wolfe'
grown by Coral McAteer



Tillandsia 'Marron'
1st *Tillandsioidea* Helen Clewett



Tillandsia velutina
ID'd for Keryn Simpson



Wallisia cyanea
grown by John Crawford



Tillandsia 'Laurie'
grown by Dave Boudier

Katydids and Clensel

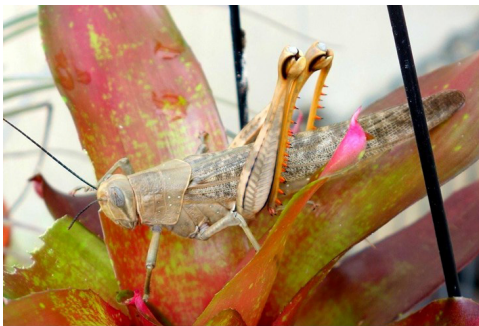
Neville Wood April 2016

How many of us have been shocked to find our favourite bromeliad with the beautiful leaves chewed or an inflorescence bitten almost through and immediately thought that the culprit was a grasshopper, but no matter how thoroughly we searched we couldn't find any trace of the offender.

Grass Hopper Damage:

Grasshoppers come in various colours and sizes but they all have one thing in common, they are all destructive!

Once grasshoppers find a nice source of food, they usually hang around until caught and killed and they're not always easily seen as they hide beneath the leaves. The best time to see them is when watering in early morning or late afternoon and this is the best time to catch them also, as they seem to be very sluggish in their movements during these cooler parts of the day, and as soon as the water comes near them they try to get away from it and at this time they're more vulnerable, easily seen, caught and killed.



Sometimes no matter how much you search, you never find the grasshopper which means they have either moved on to greener pastures or possibly they weren't the offending insect in the first place.

The culprit may well have been an insect called a "Katydid" which are similar to grass hoppers and are just

as destructive, but they mostly do their work at night. So go and check over your plants with a strong torch, but be warned, they are masters of camouflage and not easily seen such as the one in the picture below which looks like a leaf.

Katydid:

I haven't seen any of these or grass hoppers since I started using a product called "Clensel Insect and Mite Killer Spray", which I purchased from the sales table at our local Bromeliad Society monthly meetings. This product is a natural and efficient garden pest controller and is an effective weapon against many

common garden pests such as aphids, spider mite, psyllids, mealy bugs, green fly, white fly and scale insects. It is organically certified and has been an effective natural controller of various garden insects and pests for over 25 years; long before being "green and natural" was the "in thing", and is a proven product with an avid following.



See: <http://www.clensel.com.au/insect-mite-killer/> Clensel is not a poison; it contains Oil of Citronella which is a plant based insect repellent with strong anti-fungal properties. Unlike Pyrethrum based insect sprays, Clensel will not kill all insects; especially beneficial garden insects needed for cross pollination such as bees.

It's safe for Indoor use, washes off easily with water, has no withholding period nor is it harmful to the soil. It can also be used on most plants and flowers, including fruit and vegetables. (For your delicate plants, just use a more diluted solution) Clensel does not contain Petroleum based ingredients (such as Paraffin). It contains Potassium Oleate, which is obtained from potassium salts and a mixture of natural fatty acids, which coats leaves in a protective cell and being an ecological insecticide is ideal for usage in glasshouses.

I don't spray it on my plants as recommended, but just occasionally spray around and under the pot rim and the pot base. I also do this routinely each time I re-pot all plants and find it works effectively and seems to keep insects away when used in this way. It's most likely the repellent action of the Oil of Citronella in the insecticide that acts as a deterrent, and since I started using it in this way five years ago I haven't seen any sort of chewing insects on my plants. Friends tell me it's also very effective when sprayed on the different types of scale, and as it isn't petroleum based like many pest oil sprays it should be well suited for use on bromeliads.

Many growers are now becoming more aware of the toxic effects of many commonly used insecticides, fungicides and weedicides and the long term devastation they can cause to our environment and I think Clensel can be used with confidence as a suitable natural alternative in the control of many common insect pests.

I hope the above information may help other growers to control these destructive chewing insects in a way which is effective, yet less harmful to the environment.

Aechmea muricata (Arruda da Camara) L.B. Smith, Phytologia 8:12. 1961.
Bromelia muricata Arruda da Camara, Diss. Pl. Brasil. 21. 1810.

Distribution: Terrestrial, dry sand or salty soil, near sea level, Pernambuco, Brazil.

First time flowering for me of this plant that I've had for more years than I care to remember. I planted it in a newly developed garden we built here at PineGrove at least 12 years ago and it has finally rewarded us with its flowering. The blue petals only seem to appear at night which makes it difficult for me to capture open flowers which have no scent/perfume of note. They are a relatively large plant growing to over a metre across with broad stiff leaves and armed with strong spines. The spike is 600mm high including the 100mm x 80mm cylindrical inflorescence. *Aechmea muricata* has been around in collections in Australia since before the early 1980s hence I'm surprised I had not seen it flowering before.



Aechmea muricata
grown by Ross Little

An Eagled Eyed Observer

In our FNCBSG NSW March Newsletter page 7 was a Cryptanthus brought in by Wendy Buddle for identification, Vic Przetocki of Western Australia suggested it looks like *Cryptanthus* 'Old Gold'. Thanks Vic, hope this helps Wendy.

Neoregelia 'Rosy Morn'

Drew brought in this rather large plant asking for clarification of its identity as it appeared different to another plant of the same name in his collection. A seed raising programme by Amazon Nursery, Sydney gave rise to this stunning pinkish red plant. In its juvenile stage the pups have spotting which eventually grow out. *Neoregelia* 'Rosy Morn' was given as a grex name to cover several clones / variants. Yes, in very bright light it goes a rosy red colour, most definitely an eye catcher in any collection.



Six Benefits of Using Seaweed in the Garden:

from Seaweed Fertilizer to Pest Control Chris Hull July 13, 2016

What's your favourite thing about going to the beach? Relaxing with a good book while soaking in vitamin D? People watching? Collecting shells and sea glass? Now you can add collecting an all-natural garden soil amendment to that list. On the beach Mother Nature offers seaweed, which is one of the best tools for a healthy garden. Read on to learn about the benefits of seaweed for your garden

How to collect seaweed:

Collecting seaweed is as easy as walking on the beach. Couldn't. Be. Easier. The only supply necessary to collecting seaweed is a bag. I often use a plastic bag because that's what I have on hand, but others use burlap bags or onion bags which are great because water can drain out. Some folks claim that it's best to collect seaweed that is in the mid beach area--not too close to the water or too far up the beach so that it's dried out. I'm not so picky and I'll take whatever I can get. Once I grab a handful of seaweed I like to give it a shake to allow any sea critters that may be hiding to fall out.

- **Fertilizer:** Seaweed has 60 trace minerals and ready-to-use nutrients including nitrogen, potassium, phosphate and magnesium. It also contains hormones to encourage plant growth. Unlike other garden amendments, such as manure, seaweed does not need to decompose before being a benefit to your garden.
- **Mulch:** Like all mulches, seaweed helps to keep soil moist thus reducing your need to water the garden. An application of seaweed will reduce how often you need to weed. It contains no seeds that could possibly turn into weeds as bark mulch sometimes does. Recently I've become aware that bark mulch can be a fire danger because it is dry and acts like kindling. Seaweed presents no such danger.
- **Pest control:** Slugs especially hate seaweed because of its sharp edges and salt. Birds and other garden pests dislike it for the same reasons.
- **Improved aeration:** Seaweed helps aerate the soil just like peat moss does, but it has the added benefit of delivering nutrients and minerals.
- **Prevents fungus and disease:** Seaweed helps you to grow strong, healthy plants, and healthy plants resist fungus and disease.
- **Doesn't blow away:** Unlike other compost and mulches, seaweed (especially when it is still wet) won't blow away in a stiff wind.

Concerns

Some gardeners worry about the salt in seaweed negatively impacting their garden. I can report that after years of using seaweed in my garden I have no evidence of that negative impact. Take a moment to check your local beach's codes before collecting seaweed. You shouldn't run into a problem with removing seaweed from the beach because you're not a commercial operation, but it's best to check first.

How to Apply Seaweed to Your Garden

The only thing easier than collecting seaweed is applying it to your garden. Simply place it around plants just as you would compost and/or mulch. Use as much as you can; don't be skippy. Your garden beds will appreciate a generous 100 to 150mm (4-6 inch) application.

The Benefits of Liquid Seaweed Fertilizer Cindy Lawson

One of the best fertilizers you can use on your plants is liquid seaweed. Yet this is probably the last fertilizer people think of buying when they go to their local garden centre or shop online. Liquid seaweed fertilizer is not only organic, but comes from a sustainable source and can be harvested without damaging the environment.

Most seaweed-based fertilizers are made from kelp, a variety of seaweed that can grow to lengths of over 50 metres. Trace elements found in organic seaweed fertilizers include magnesium, potassium, zinc, iron and nitrogen—all of which are beneficial to plants. Nitrogen, for instance, is essential to the production of nitrate, a key component needed by plants during photosynthesis.

I can't rave enough about the benefits of using a liquid seaweed fertilizer on your garden, be it on your lawns, your flower beds, your vegetables or even on your houseplants. I personally have found the results incredibly impressive, and I love that this is a natural product harvested in a way that won't have any negative impact on the environment or the sustainability of the seaweed itself.

Where Should You Apply Liquid Seaweed Fertilizer?

Seaweed has more than 70 minerals, vitamins and enzymes. Here are just a handful of its many benefits and uses:

- Liquid seaweed solution promotes additional budding if applied as the plants are beginning to bud.
- It extends the shelf life of fruits and vegetables if applied 10 days before harvesting.

- The extract lengthens the life of cut flowers if they are sprayed with it a day or two before cutting.
- It can also be used as a rooting solution. Place cuttings in a solution of liquid seaweed and water until roots develop, then plant. When planting seeds or transplanting, water with the solution.
- If applied to pasture crops, the algae increases the nutrient uptake, the protein content and overall quality of the crop.
- Seaweed extract also boosts crop yields, improves resistance of plants to frost and disease, increases uptake of inorganic constituents from the soil, bolsters resistance to stress conditions and reduces storage losses of fruit.
- It promotes vigorous growth and helps deter pests and diseases on fruit, flowers, vegetables, lawns etc.
- Seaweed fertilizers are especially useful in organic gardening. They contain almost every micro-nutrient in a fully chelated (immediately available) form. The algae is also full of carbohydrates, which plants use as a building block. Numerous beneficial microorganisms also use carbohydrates as a food source.
- Liquid seaweed fertilizers (especially the alginates in the seaweed) act as soil conditioners. The alginates react with metals in the soil and form long, cross-linked polymers in the soil. These polymers improve the crumbling in the soil and swell up when they get wet. They also retain moisture for a long time.

How Is Liquid Seaweed Fertilizer Made?

Liquid seaweed fertilizers are made from various species of seaweed that are washed, dried, milled and processed to enable the natural benefits to go into effect immediately upon contact with either the plants' foliage or the soil itself. This speeds up the natural processes by converting raw seaweed into an easily applied and easily digested weed.

Harvesting methods ensure sustainability of the natural crop. Selecting healthy weeds growing under optimum conditions guarantees the best growth-promoting substance yield.

Liquid seaweed extract is produced with no acid and no caustic or organic solvents. It is a truly organic product that has been extensively used in organic grower trials.

In part from: <https://dengarden.com/gardening/The-Benefits-of-Using-Liquid-Seaweed-Fertilizer>

Novice Popular Vote

1st	Steve Davidson	<i>Neoregelia</i> 'Manoa Beauty'
2nd	Sue Mackay-Davidson	<i>Vriesea fosteriana</i> var. <i>seideliana</i>
3rd	Drew Maywald	<i>Neoregelia</i> 'Rosy Morn'

Open Popular Vote

1st	Keryn Simpson	<i>Dyckia</i> hybrid ???
2nd	Coral McAteer	<i>Neoregelia</i> 'Tom Wolfe'
3rd	-----	-----

Tillandsioideae

1st	Helen Clewett	<i>Tillandsia</i> 'Marron'
2nd	John Crawford	<i>Wallisia cyanea</i>
2nd	Sue Mackay-Davidson	<i>Tillandsia</i> 'Temascal'
2nd	Gary McAteer	<i>Tillandsia tectorum</i>
3rd	Dave Boudier	<i>Tillandsia</i> 'Laurie'

Decorative

1st	John Crawford	'Rub-a-dub-dub 3 Broms in a Tub'
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Judges Choice

1st	Keryn Simpson	<i>Dyckia</i> hybrid ???
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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.

New Bromeliad Taxon List : <http://botu07.bio.uu.nl/bcg/taxonList.php>

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, 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 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.