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

Edition: June 2026

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery
114 Pine Street Wardell 2477

Phone (02) 6683 4188

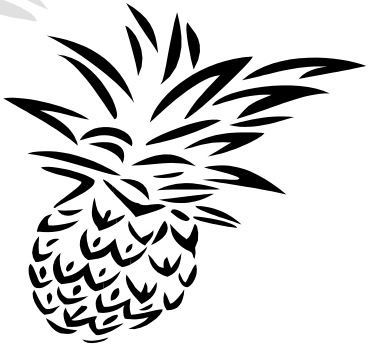
Study Group meets the 3rd Thursday of each month

Next meeting July 16th 2026 at 11 a.m.

Editorial Team:
Ross Little

pinegrovebromeliads@bigpond.com

Life Members: Gary McAteer, Coral McAteer
Debbie Smith, Shirley Smith
Ross Little, Keryn Simpson



Meeting May 21st 2026

The meeting was opened at approximately 11.00 am
Nine members were welcomed.
Three apologies were received.

General Business

To attract new members to a Group it is necessary to advertise on various public media platforms, however it is often found that word of mouth is the best form of advertising. This month Kayelene introduced her friend Maureen Edwards to our Group. Maureen has admired the Bromeliads in Kayelene's garden for some time now and is very keen to learn more about these special plants and to start her own collection. Welcome Maureen, we hope you enjoy your time with us.

Our only request of new members is not to be afraid to ask questions. Tell us what you want to know/do and we'll make it happen for you, be it potting mixes, pup removal, identifying the various parts of a flower or any point of interest to you about Bromeliads. It is up to the longer serving more experienced growers among us to pass on their knowledge to our beginners and you'll be surprised what hints and tricks you'll pick-up along the way yourself. There are members at all levels in every Group more than willing to pass on information, so don't be afraid to ask any questions and if we hear a "I'm not at liberty to say" well you guys know my answer to that as **The aim of our Group** is**:**

- Be friendly.
- Pass on knowledge / share information.
- Assist others.
- Discuss growing tips.
- Open discussions by all.
- Ask questions.
- To swap and sell bromeliads / price them fairly.

We have been advised by our computer specialists that later this year we may no longer have Publisher available for our Newsletter. This is a problem for me as Editor as I have never used any other computer program for this purpose. Yes I'm not terribly computer literate and have had no real need to be, which may cause an issue regards future issues of our Newsletter.

Do I simply retire when Publisher retires or has somebody a simple answer ?? Canva has been suggested but can be difficult, apparently.
Word has also been suggested.

Any suggestions or helpful advice would be appreciated.

Shane read the Treasurers report advising that our Group funds are healthy enough to fulfil our obligations for the year. Fortunately our members are happy to donate most of our kitchen consumables, tea, coffee, sugar, milk etc.

The Tillandsia Day in Brisbane is now to be held on **Sunday 21st June** not the 20th as previously promoted at our May meeting.

Another change discussed this month is voting for our Popular Vote Competition The suggested change being, now that we can enter two plants into the 'Open' section we should also have two votes for that section per person. All agreed. It still remains as one vote per person in the 'Tillandsia' section, no change.

As discussed at our February meeting *Catopsis minimiflora* profusely sets seed which readily germinates on whatever surface it happens to land. Ross checked his shade house and found some good sized seedlings and potted them up to give to members who had asked for them.

Some of our members have suffered some losses due to the excessive wet weather we've experienced over the past couple of months. It is important to keep good air flow around our plants by not overcrowding them which helps them dry out quicker between showers. Check your potting mix hasn't broken down causing clogging in the bottom of the pots resulting in poor drainage. Many of our Bromeliads prefer a coarse, free draining potting mix, not a heavy mix that does not drain freely. Kayelene has done this with her mix for *Neoregelia* 'Julia' that has grown beautifully for her, it's coloured up nicely and rewarded her with a very nice offset.

Air and Potted Bromeliads

By John Catlan in his book Bromeliads under the Mango Tree

The plants we love to grow love air. Epiphytic bromeliads have both their roots and foliage exposed to air movement. Tillandsias, growing in wave-like clumps on the desert sands, receive moisture laden in-shore breezes.

The terrestrial Bromelia, Ananas, Dyckia and Hechtia are exposed to the elements. The Puya of the mountains have their share of strong winds. Bromeliads growing on cliff faces and steep mountains are subject to updraughts. The catchy phrase "air plants" does not seem far from the truth.

The emphasis of this article will be on the air content of the soil mix used in pot culture. But remember that is should not be considered in isolation as all the physical properties interact to produce an optimum mix. A potting medium must supply air, water, and nutrients and these are referred to as physical properties. Once a plant has been potted, the physical properties are stable, except for decomposition and settling of the mix: both reduce the air content in the mix.

The following summary of different nursery soils encountered when purchasing plants will give you a rough understanding of the air content in the pot.

Potting mix which has 0-5% air**:** Suitable for plants that like water-logged conditions; is very heavy especially when wet and has a tendency for water to pool on top of the mix when watering. Rarely encountered now from production nurseries, but regularly observed in flea market “amateur potted” plants.

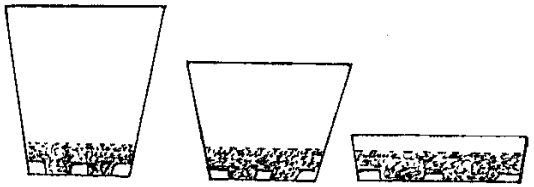
Potting mix which has 5-15% air**:** This is the minimum aimed for in nursery mixes and is used for trees and shrubs destined to be planted in the garden.

Potting mix which has 15-20% air**:** An ideal indoor plant mix but leads to difficulties for trees and shrubs which, when planted in the garden, need more watering than most people realise. This level of air is the minimum required for terrestrial Bromeliads.

Potting mix which has more than 20% air**:** This is a mix that requires frequent watering and is suitable for indoor plants and cymbidium orchids, and is the minimum required for epiphytic bromeliads. After watering a plant container and the water has finished draining, the residual water content is described as “container capacity” - the amount of water that the soil in that container will hold.

The medium at the bottom of the pot remains saturated even after the excess water has drained away.

This saturation level remains constant for each of the soil types shown above, and is not altered by pot size or shape as shown in this figure.



Bromeliad growers like to use squat pots for stability of the plants but this results in a decrease in the air content percent, as the height of the pot is reduced. Placing drainage in the bottom of pots eliminates this problem but has gone out of vogue with increased labour costs and the use of potting machines. For amateurs interested in the quality and survival of irreplaceable plants, the extra time taken is worth the effort.

Broken clay pots are now at a premium for use as a drainage medium, and the only real choices freely available are gravel and chopped up styrene foam. For more stable pots use more gravel than styrene foam. River washed stones (round ones) are preferred to crushed gravel, as the latter has a tendency to pack down. The drainage method used has the disadvantage that it provides an excellent home for slugs and snails.

Vriesea hieroglyphica (Carriere) E. Morren, 1884.

Grows epiphytically in rainforests from near sea level to over 800 metres altitude in Espirito Santo to Parana in eastern Brazil.

The flowers of *V*riesea *hieroglyphica* are like any other Vriesea flower, one on either side of the bract stem until you are setting seed. A trait of this Vriesea is every seed capsule, with or without seed move 90° towards each other. The flower bract stays in its original position, *Vriesea hieroglyphica* is the only Vriesea that does this.

Vriesea hieroglyphica grown by Kayelene Guthrie

***Vriesea* ‘Red Emperor’**

A cross of *Vriesea hieroglyphica* and ‘Big Red Fosteriana’ by M&M Cameron was named ‘Red Emperor’, the same cross made by Peter Tristram and sold by others as *Vriesea* ‘Bevie’ are now to be known as *Vriesea* 'Red Emperor'.

The flowers of *Vriesea fosteriana* move from right angles, 90° to the bract stem downwards to 45° to the bract stem, just as the flowers open. Hybrids created using *Vriesea fosteriana* only move half as much. You can use this trait to help confirm which plants have *Vriesea fosteriana* as a parent.

Vriesea ‘Red Emperor’ (‘Bevie’) grown by Ross Little

Tillandsia
'Cocoensis'
1st Tillandsia
Shane Fitzgerald

Tillandsia globosa x *edithae*
grown by Deb Baker

Tillandsia 'Fuego'
grown by Gary McAteer

Tillandsia punctulata Schlechtendal & Chamisso, 1831.

Tillandsia punctulata is a stoloniferous species that readily forms clumps in large pots of a fairly loose potting mix made up of coarse pine bark and leaf mould creating a rich but free draining substrate.

It is grown in full sun here except for the hottest few months of summer. It is a mesophyte, a species that prefers an environment that is cool and moist, regular misting is essential during the heat of summer, do not allow it to dehydrate.

Tillandsia punctulata
shown by
Ross Little

Tillandsia punctulata grows epiphytically in semi shaded areas in the moist forests of Mexico through to Central America.

It is quite distinctive having blackish violet leaf sheaths (base of the leaves) with long narrow green leaf blades and an inflated inflorescence with red or orange bracts.

We saw *Tillandsia punctulata* with branched inflorescences growing epiphytically on a trip to Lagunas de Montebello in Chiapas, Mexico. Also growing in this area were *Tillandsia butzii, juncea, lamprapoda, lucida, multicaulis, seleriana* and *standleyi,* also seen were Catopsis, Pitcairnia, Racinaea and Werauhia.

Photos by Ross Little

Neoregelia ‘DeRolf’
1st Open
and
Judges Choice
Ross Little

Ananas ’Mila’
Judges Choice
Shane Fitzgerald

Neoregelia ’Coleman King’ unreg.
grown by Shane Fitzgerald

Neoregelia ’Homage’
grown by Deb Baker

Aechmea
‘Dark Storm’
unreg.
grown by
Deb Baker

Neoregelia ‘Imperfecta’
grown by
Kayelene Guthrie

Last month Kayelene discussed her not so happy Alcantarea with suggestions of a good feed might help brighten them up. Kayelene showed some photos of her Alcantareas this month which told a different story about their health.

It appears to be soft brown scale and or mealy bug attacking the plants.

Armoured scales are the most damaging of all scales, soft scales depend upon ants for their survival, unarmoured scales known as mealy bugs are protected by ants and infest all parts of plants. The long tailed mealy bug *Pseudococcus longispinus and* Citrus mealy bug *Planococcus citrii* infest stems and leaf. Root mealy bug, Rhizoecus falcifer makes white byssoids in the potting mix.

Soil mealy bug (Pritchards mealy bug) *Rhizoecus dianthi* live between stem and clasping leaf. Ants build soil up the stems enabling Pritchards mealy bug higher access into the plant. Exposed roots are eaten by cockroachs.

Some Suggestions on How to Treat Infected Plants

Use an atomizer spray bottle of Methylated Spirits, spray directly onto affected area or wipe with cotton buds soaked in MS to get into tight leaf axil areas or soak a soft cloth in MS and wipe the area clean. Even thought MS evaporates quickly always take care and wash the plant with clean water after treatment.

For large infestations it may be easier to use a chemical insecticide like: **Confidor™** (active ingredient a.i. = Imidacloprid) This is a water based wide spectrum systemic insecticide that has a high LD50 rating (it will kill bees).

Spectrum 200SC (a.i. = Imidacloprid) is a systemic insecticide which targets sucking insects.

Malathion is an organophosphate it is a contact spray, as with all chemicals follow all safety directions.

Photos by Kayelene Guthrie

Family *Pseudococcidae*

Unarmoured Scale pests of Bromeliads — Mealybug

by Les Higgins 2014

There are 262 genera of mealybug with about 2,000 species known. These pests can be divided into two groups: aerial mealybug and soil or root mealybug.

Aerial mealybugs: Until attaining adult stage all aerial mealybugs readily move into the soil for protection against adverse conditions such as low temperature. Two of the locally encountered aerial mealybugs infesting Bromeliads are:

Long Tailed Mealybug, *Pseudococcus longispinus* - Body colour varies light yellow to grey, pink or light purple. Usually ovoviviparous (live birth from eggs hatching within a body. Usually a dead body.) occasionally eggs are produced. The eggs are pale yellow and darken in colour before hatching, 20 to 240 eggs or emergent young are produced depending on environmental conditions.

Citrus Mealybug, *Planococcus citri* - This insect has two forms, aerial and root. The aerial form lays between 300 and 600 eggs contained in an ovisac that can be twice the length of the female. When egg laying is complete the female lies moribund at the entrance of the sac. The huge quantity of eggs formed in the abdomen has compressed her vital organs into the thorax and she never recovers.

Soil or Root Mealybugs: These are white to light grey in colour, oval-elongate in shape that look like a small particle of perlite. When in doubt squash the particle to see if it exudes a pinkish body fluid. This insect is rarely seen at or above soil level. Root mealybug is extremely hard to detect and destroying them is both difficult and cumbersome. Infestations are slow to develop and it may be many months before they become apparent. Excessive watering can wash root mealybug crawlers out through the drainage holes of the pot, they then walk to new pastures.

Ant activity is usually the first indicator of root mealybug. Infested plants show numerous symptoms including declining vigour, change of colour, ‘wobbly’ in the pot or total loss of roots. Cryptanthus leaves curve downwards and their edges crinkle revealing the roots are no longer able to obtain water. Ants are the most probable source of infestation as they carry crawlers from plant to plant.

Planococcus citri (Root Form) - This insect is associated with the fungus Polyporus sp. Plant roots are encrusted with a greenish white fungal tissue. Citrus mealybug nymphs and adults are revealed when the tissue is peeled away.

There is at least 130 species of *Rhizoecus,* just one of the many genera of Soil Mealybug. Two of the local Bromeliad Mealybugs are:

Ground Mealybug, *Rhizoecus falcifer* - This insect resides within the substrate feeding on plant roots. Females are 2.1mm to 3.9mm long. Eggs are contained within a loose ovisac in clusters of at least six. A thin waxy white filament, similar to mycorrhiza (fungus root), gradually permeate the substrate and the inside walls of the pot. As the infestation increases the soil becomes tinted blue.

Pritchards Mealbug, *Rhizoecus dianthi* synonym *Rhizoecus pritchardi* - This is a devastating pest of Cryptanthus. It can be seen on sub-soil stems and never noticed when feeding between stem and clasping leaf. The leaves of Cryptanthus emerge from ground level giving this mealybug easy access between soil and plant. Ants mound soil up the stems enabling Pritchards Mealybug to go ever higher up into the plant. Females are 1.6mm up to 2.1mm long.

Mounded soil up the stem of a Cryptanthus.

Mealybugs were hidden under the mounded soil between stem and pup.

Mealybug heaven is a moist (not wet) environment, high humidity and a loose substrate. Root mealybug prefer an optimal temperature of 25º Celsius. Temperature below 2º celsius is fatal to them.

Mealybugs are capable of surviving without a host plant for 19 days.

Mealybug have a ‘piercing and sucking’ mouthpart. Large amounts of sap are extracted from the plant to obtain sufficient protein. Many species of mealybug salivate to facilitate the extraction of even larger quantities of sap. Saliva can be toxic and has the potential to transmit virus including Pineapple Wilt. Saliva will destroy cell walls. Honeydew flows from the insect and that attracts ants.

Honeydew is the nutrient source for the subterranean fungus Polyporus and sooty mould seen on leaves and stems.

Female mealybugs retain their legs and can be mobile most of their life. Once settled they usually stay in one spot for life. When disturbed they are capable of quickly moving to hide in a safer location.

Mealybug life cycle and reproductive frequency is governed by temperature. In ideal conditions larvae mature to adults in about 40 days. Both sexes go through at least two instars (a stage of an insect or other arthropod between moults). Males (where known) pupate to become tiny two winged insects without mouth parts. The life of the adult male is no more than two days. Females make at least a third moult before finally becoming adults. Adult females can live a further two to three months. Reproduction commences within 10 to 14 days after fertilization. In green house conditions up to eight generations per year has been recorded.

A newly acquired plant may not be root mealybug free. Take every ‘new’ plant from its pot and make a visual inspection of the roots. Remove at least one bottom leaf off a Cryptanthus to search for Pritchards mealybug. A rootless pup immediately taken from a parent plant may conceal Pritchards mealybug within the leaves.

Two suggested ingredients that can be incorporated into a potting mix to deter soil or root mealybugs are**:**

1) **Coarse river sand -** If your plants roots are covered in a white powder, then hose this off and make up a new potting mix containing 10% sand. Root mealy will be gone. Wash any white powder off the inside of pots with a 50/00 bleach and water solution. Always check for mealy bug on any new plant obtained. Pritchards mealy bug is the worst, you will find it under the bottom leaves.

2) **Diatomaceous earth -** Food grade and agricultural grade have both been tried and recommended by members of our Group, however it does break down in 12-18 months so needs to be reapplied. It can be mixed into the potting soil at a rate of one heaped tablespoon per kilogram of potting soil.

Alternatively a ‘dust puffer’ can be used to dust the surface of the potting soil and it helps get the dust into those tight leaf axil areas where mealybug hide.

Diatomaceous Earth

by Les Higgins 2014

Diatomaceous Earth is also known as Diatomite, Amorphous Silica and Silicon Dioxide but usually referred to as DE. The agricultural form of DE is Amorphus Silica, the fossil remains of Phytoplankton and not an earth. This is the near perfect organic pesticide.

To insects DE is microscopic razor sharp particles that lacerate the cuticle leading to physical disintegration. Death by dehydration occurs as the DE absorbs the oils, waxes and water from the pest. Diatomaceous Earth particles can be incorporated in potting mix to annihilate creatures such as soil mealybug and worms. The suggested combining rate for white DE is one tablespoon for each kilogram of potting mix. Diatomaceous Earth powder can be used to kill ants, cockroaches, slugs, snails, spiders and bed bugs. In poultry farming it kills red mite and lice. Food grade DE is given to humans and horses to kill intestinal worms and poultry and sheep to eliminate internal parasites. Diatomaceous Earth is a disaster to all insects with exoskeletons but leaves warm blooded creatures unharmed.

Diatomaceous Earth gradually breaks down when subjected to moisture thus making silicon available to the plant. Although silicon is abundant in soil it is probably deficient in soilless potting mixes. Silica is an important plant nutrient and should be considered on par with N.P.K.Ca, Mg, S. The incorporation of Diatomaceous Earth into a soilless mix may provide adequate silica to produce sturdy plants and increased resistance to pests.

Diatomaceous Earth is mined as rock at Mt Garnet, North Queensland then crushed to form powder and various small size particles. Best quality DE is white with grey and brown of a lower quality. Its pH is approximately 7.0. One should not use the swimming pool Diatomaceous Earth product as it has other added chemicals and has also been heat treated.

For chemical control, refer to the following articles:

FNCBSG NSW Newsletter, December 2013:
Chemical Control *Diaspididae* - Hard or Armoured Scale Insects, p.12.
The selected active ingredient (AI) should be a Systemic applied in a minimum of three applications, each at least two weeks apart.

FNCBSG NSW Newsletter, February 2013:
Scale Control in Bromeliads, p.16.

When using chemicals be sure to follow all safety directions supplied with the product being used.

How Should I Present My Bromeliads for Our Meetings?

Selecting a plant for a monthly Popular Vote Competition can be different to a Competitive Show selection. Quite often selection for the latter could be made many many months prior to the Show and starting your preparation early. A greater eye for critical detail of ones plant is generally required. It is a little more relaxed for a monthly competition. This selection timing is often done a day or two prior to the competition or even on the morning of the competition!

Some basic points to look for:
The Wow factor, select a plant that is symmetrical in conformation and is one that catches your eye, hopefully it will also catch the eye of the voters.

Ensure the plant is clean of debris within the leaf axils, time permitting a good flush out with a garden hose helps. Lay the plant on its side and rotate it as necessary while flushing with a hose. Use long tweezers for those stubborn bits caught deep in the leaf axils if necessary. Tip the water out on the day of entry.

Check the plant for pests and diseases such as mealy bug or fly speck scale.

Remove any dead leaves from the base of the plant, split stubborn leaves down their centre and pull in opposing directions should help them come away more easily. If the plant now appears to be sitting high above the top of the pot, remove the plant from the pot and cut the required amount off the bottom of root base, this will allow the plant to reset lower in the pot. The plant should also be central in the pot, if it's not trim roots from the side allowing the plant to reposition to the centre, add fresh potting mix. Alternatively if the overall balance of pot to plant size can be maintained for presentation use a larger pot.

Trimming damaged leaves is acceptable, look at a leaf with no damage and trim to mimic making your trimming less noticeable. Best done the day of competition not a week before.

If your pot is a bit dirty or tired looking methylated spirits will help brighten it up or carefully spray the pot with insect repellent and wipe clean.

Ensure your plant is labelled correctly, if in doubt, ask when entering your details in the Popular Vote registration form for the relevant section.

Mounted Tillandsias should be clean and tidy, trim dead ends of leaves but it is not necessary to remove all dead debris within the base of clumps as this can often be difficult and may damage the plant.

The most important thing is not to take it all too seriously and have fun, we don't have qualified judges, Judges Choice is mostly on quality of growth rather than it looks pretty and sometimes not the best plant but simply for encouragement.

Open Popular Vote

1st	Ross Little	*Neoregelia* 'DeRolf'
2nd	Kayelene Guthrie	*Vriesea hieroglyphica*
3rd	Shane Fitzgerald	*Ananas* 'Mila' unreg.

Tillandsia

1st	Shane Fitzgerald	*Tillandsia* 'Cocoensis'
2nd	Ross Little	*Tillandsia punctulata*
3rd	Gary McAteer	*Tillandsia* 'Fuego'
3rd	Deb Baker	*Tillandsia globosa* x *edithae*

Judges Choice

1st	Ross Little	*Neoregelia* 'DeRolf'
1st	Shane Fitzgerald	*Ananas* 'Mila'

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
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 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.