

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

Edition: July 2026

Agenda: General Discussion

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

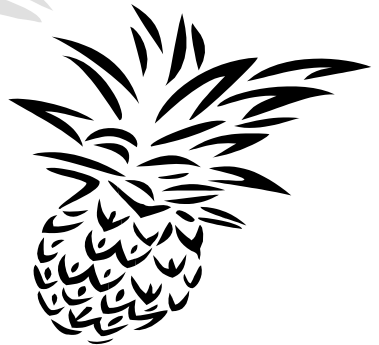
Study Group meets the 3rd Thursday of each month
Next meeting August 20th 2026 at 11 a.m.

Editorial Team:

Ross Little

pinegrovebromeliads@bigpond.com

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



Statements and opinions expressed in articles are those of the authors and are not necessarily endorsed by the Group.
Articles appearing in FNCBSG NewsLetters may be used in other Publications on request and provided that the source is credited.
Use of articles on social media platforms only with written consent for past present or future articles.

Meeting June 18th 2026

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

General Business

We discussed a voting rethink regarding the 2 votes per person in the Open Section - a final decision to be made at our July meeting.

Regarding voting, please refrain from voting prior to the start of the meeting as some members may arrive with their entries after you have voted. By voting early some entrants may be disadvantaged. Voting is only to be done during our lunch break. Thank you.

Debbie asked if anybody else has had issues with grasshoppers lately. She has tried molasses without much success.

A couple of methods that may be worth trying:

Bait Trap Setup: Mix molasses with water in a 1 to 9 or 1 to 10 ratio (1 cup of molasses per 9 cups of water). Pour the solution into shallow containers or buckets and bury them level with the soil near garden beds. The sweet scent attracts grasshoppers, trapping and drowning them.

Foliar Spray: You can also mix a cup of molasses into 1 litre of warm water and spray it directly onto foliage. The sugary coating attracts the grasshoppers to feed, causing them to ingest the mixture and die off naturally.

Ed. Warning: be mindful, the sugary coating of the spray may also attract ants which may introduce mealy bugs causing another issue for you to deal with. Refer FNCBSG Newsletter June 2026, on how to deal with mealy bugs.

If the infestation isn't too great a light burst of a flying insect spray helps. Emphasis on lightly and keep a reasonable distance from plants as contents from spray cans can be very cold to delicate leaf surfaces therefore causing damage/cold burn and heavy spraying may cause leaf burn.

For safer grasshopper control without damaging foliage try using an agricultural insecticide like Yates Advanced Garden Insect Killer which is highly effective against chewing pests. Try David Grays Cricket and Grasshopper Bait, look for products at your local agricultural supplier for other alternatives.

Always read the label before using any chemicals and wear appropriate safety equipment as specified on the label.

Debbie mentioned that grasshoppers aren't the only problem in the garden at the moment, snails and slugs are making themselves known among her plants chewing on leaves.

Snails and slugs can feed on bromeliads. They feed on leaves and flowers and leave behind large holes or chewed edges of plants. They also leave slimy trails on the plants. Slugs are active at night. If you suspect them as a culprit, check your plants after dark.

Snails and slugs like to hide under things in dark places during the day. It is best to remove them by hand. You can also set a slightly elevated board near the infested plants during the night. Once the sun is up in the morning you can remove the board, slugs and snails may have taken shelter there making it easy to remove them and feed them to the birds. Baits and traps are also available, but chemicals should be used as a last resort.

Before resorting to baits and traps be sure you are targeting the right species.

What Do Snails and Slugs Eat in Australia?

Their diet depends on whether it is a native species or an introduced pest.

Native Australian Snails: Most native snails in Australia are not garden pests and do not eat living plants. Instead, they feed on fungi, lichens, micro-algae, and decaying leaf litter. Some, such as the carnivorous land snail, hunt earthworms and other snails

Introduced Snails (European Garden Snail): The common garden snail was introduced accidentally from Europe, these are the snails that typically damage vegetable gardens, seedlings, and agricultural crops. They thrive in urban areas alongside humans.

Slugs in Australia fall into two main categories, introduced pest species and native species.

Introduced slugs: The Leopard Slug and Grey Field Slug are highly destructive and feed on living vegetation and decaying organic matter.

Native Australian Slugs: Australia's largest native slug is the Red Triangle Slug, which is easily identified by the distinct red marking on its back. These slugs rarely damage gardens and instead eat microscopic algae and mould. They graze on the surface of smooth-barked eucalypt trees, rocks, and other damp surfaces, leaving scalloped feeding trails. They frequently consume household mould found in damp environments, such as bathroom walls.

The Red Triangle Slug is often found in Bromeliad leaf axils grazing on algae.

Getting Rid of Snails in Bromeliads with Garlic Water

Tip of the Day from: Ann-Marie Johnston's Post - BSI Group.

“If you have Bromeliads in the landscape, then there will be snails dwelling within the inner leaves, especially if there is a lot of leaf debris in them.

If snails or slugs are eating your flowering or vegetable plants and you don't know where they are coming from, chances are from your Bromeliads, but you won't see them active during the day because they crawl out to feast at night.

Use garlic water to get rid of them. The cooked garlic can then be chopped in a chopper and used to mulch around the base of any plants being eaten.

Fill a spray bottle with garlic water and add a tiny bit of Dawn dishwashing liquid so the water will stick to plants being eaten. Use too much Dawn and the leaves will burn.

Spray down inside the inner leaves of your Broms and the snails will soon crawl out and die. Mulch around the eaten plants with the cooked chopped garlic. Sometimes I will just chop raw garlic and spread without using the water. No need to peel the raw garlic because once you chop the cloves, the skin will be removed.

No more snails or slugs in your Bromeliads. It works!”

Suggestions from Les Higgins

“Snails and slugs are Gastropods: Copper is a fungicide that kills snails and slugs. Soak the plant house floor with copper oxychloride or copper sulphate or Bordeaux mix.

Mesurool 75 Slug and Snail killer is a recommended foliar spray, it also kills mealy bug”.

Ed: Copper can kill Bromeliads, so take care if soaking the floor of your plant house to not splash copper products onto your Bromeliads.

Crushed eggshells or diatomaceous earth (DE) around vulnerable plants helps.

Beer Traps

Snails and slugs are highly attracted to the yeast in beer.

Sink a shallow container (plastic cup or tray) into the soil so the rim is level with the ground. Fill it with standard beer and leave it overnight. The pests will be drawn to the smell, fall in, and drown. Replace the liquid every few days.

Over the years there have been many different methods suggested of controlling snails and slugs in the garden, they all work, however it is best to change your methods from time to time. Don't forget variability is the spice of life.

Vale — John Crawford

John passed away on 17th June, 2026, it is with much sadness that we farewell our much respected friend.

John joined our Group in 2012 attending meetings regularly always with plants in hand for the Popular Vote tables and Show and Tell. John was always happy to share his wealth of knowledge, his plants for the raffle table and more.

He had quite a substantial collection of Bromeliads but not favouring any one particular genus, he loved them all.



Pitcairnia wendlandii

Wendy and Ian Buddle were regular attendees to our monthly meetings for many years before they headed north to Queensland. Wendy keeps in touch with the occasional e-mail letting us know how their Bromeliads are growing after the move. Every photo Wendy has sent us shows her plants are doing just fine, like this Pitcairnia flowering for them for the first time. The label has faded so Wendy sent us this photo to confirmation its identification.

It is *Pitcairnia wendlandii*, described and named by John Gilbert Baker in 1881 in honour of Hermann Wendland (1825–1895), a prominent German botanist, horticulturist, and the director of the Herrenhausen Gardens in Hanover, who collected extensively in Central America. It can be found growing as an epiphyte in wet forests at 1050 - 2400 metres altitude in southern Mexico to Costa Rica.

The genus Pitcairnia was named in 1789 to honour Dr. William Pitcairn (1711–1791), an English physician, botanist, and enthusiastic gardener.



Tillandsia stricta

Tillandsia stricta was collected in 1768 in Rio de Janeiro, Brazil where it was found growing on trees by the Swedish botanist Daniel Solander. He was a brilliant pupil of Linnaeus and at the time assistant of the British Museum and allowed to travel alongside Sir Joseph Banks on Captain James Cook's first voyage aboard the HMS *Endeavour*.

On entering the Rio de Janeiro harbour, the Portuguese Viceroy forbade the crew of the *Endeavour* on November 13, 1768 to set foot on dry land. However Banks did contrive to slip ashore secretly and spend a whole day collecting plants, some not previously recorded.

The *Endeavour's* manifest indicates there were six Bromeliads on board which indicates *Tillandsia stricta* arrived in Botany Bay, Australia April 29, 1770.

The original Latin description was written by Solander and later published by John Bellenden Ker (John Gawler) in *Curtis's Botanical Magazine* in 1813.

Tillandsia stricta a frosted stiff-leaved Tillandsia found by Dr Solander growing on trees near Rio de Janeiro, Brazil.

Since then it has been found as an epiphyte in dry or wet forest, from near sea level to 1680 metres altitude in Brazil, Venezuela, Trinidad, Guyana, Suriname, Paraguay, Uruguay and northern Argentina.

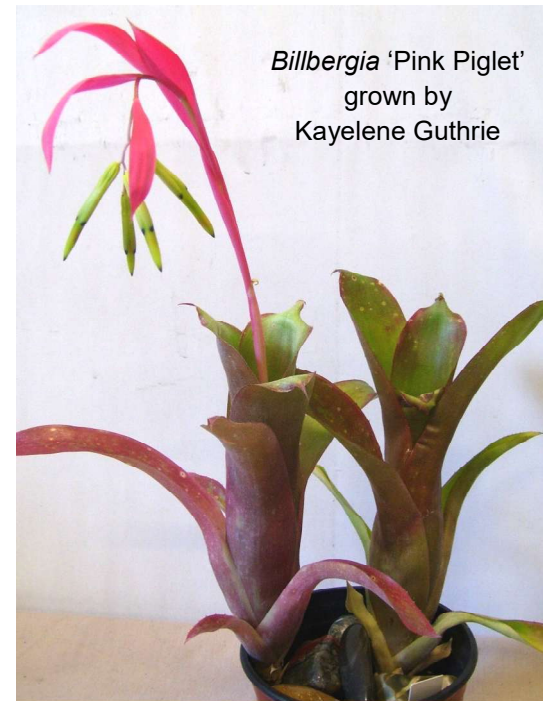
A watercolour of *Till. stricta* by Sir Joseph Banks when the ship was on the Pacific coast of South America while obtaining fresh food and water.



Tillandsia stricta
grown by Gary McAteer



Tillandsia stricta
grown by Pam Barret



This genus was named in 1821 by Thunberg for the Swedish botanist, Gustaf Johan Billberg.

Two subgenera:

Billbergia: petals bend back slightly at the tips.

Helicoidea: petals coil back like a watch spring.

Native to forest and scrub up to 1,700 metres in southern Mexico, the West Indies, Central America and South America, many species are endemic to Brazil.

Billbergias mostly grow as epiphytes or among rocks.



Neoregelia 'Star Wars'
1st Open Shane Fitzgerald



Neoregelia 'Highland Fling'
grown by Ross Little



Neoregelia 'Tears of Blood'
grown by Deb Baker



Vriesea 'Robin'
grown by Shane Fitzgerald



Neoregelia 'Moby Dick'
grown by Kayelene Guthrie



Tillandsia 'Black Feather'
grown by Shane Fitzgerald



Tillandsia ionantha
grown by Ross Little



Tillandsia neglecta 'Bronze'
grown by Deb Baker



Tillandsia dura
shown by Ross Little



Vriesea 'Jeanies Feather'
grown by
Deb Baker



Tillandsia bulbosa
1st Tillandsia
and
Judges Choice
Debbie Smith

Debbie first presented this mounted cluster of *Tillandsia bulbosa* to our Group in 2012. FNCBSG N/letter June 2012.

Debbie has removed quite a few plants over the years and generously shared them with members of our Group.

Tillandsia bulbosa was described by William Jackson Hooker in 1826. It is an epiphytic species that grows from near sea level up to 1350 metres altitude across Central America, the West Indies, southern Mexico, northern and eastern South America: Brazil, Colombia, the Guianas and Venezuela.

Debbies plant raised a discussion about plants that grow in any direction unlike most plants that grow toward the sun. *Tillandsia bulbosa*, along with other Tillandsias like *Till. intermedia* and *Till. caput-medusa* are ageotropic species meaning they can grow in any direction, upside down or sideways irrespective of gravity.

Ageotropic growth habit can be seen in this photo taken by Ross Little in 2016 in Belize on our way through Pine Ridge Forest Reserve going to the Mayan ruins of Caracol.



Geotropism in Bromeliads

by Peter Paroz

Much has been written about the response of Bromeliads to various environmental factors: temperature, moisture, light intensity, etc.

Not often mentioned however is the response of plants to gravity, probably in the usual sense it cannot be readily altered.

Geotropism refers to the orientation of plants to gravity.

Negative geotropism the plant grows upward, the crown of many Bromeliads.

Positive geotropism the tissue grows vertically downwards i.e. the tap roots of some plants.

Plagiogeotropism, where the response of the organ is such that the axis is at a constant angle to the vertical, includes the special case of diageotropism where the growth axis is at right angles to the force of gravity i.e. the horizontal rhizome of many plants.

In Bromeliads, most of these effects can be seen. In almost all cases the crown exhibits strong negative geotropism. Not surprisingly this is most strongly developed in tank forming bromeliads (a tank on its side does not hold much water) and least apparent in some of the clump forming Dyckias and Hechtias.

In some of the bulbous Tillandsias particularly *Till. butzii* and *Till. baileyi* there is no response to gravity and the offsets grow in a random fashion from the mother plant. Also in this category is *Till. recurvata* which as a mature clump forms a "ball" shape from which it derives its common name of Ball Moss.

How does the plant tissue sense the gravitational force ? I am not aware of any information on the subject. It certainly is a fascinating area for research.

So next time you think microclimate, look at the way your various plants respond to gravity. It is just one of the minor but interesting facets of Bromeliad culture.

Reprinted from: Bromeliad Newsletter, Bromeliad Society of NSW, Vol.9, No.10, October 1991.

Ageotropism: the absence of any tendency of an organ (e.g. root) to grow in a particular direction relative to the force of gravity. David H. Benzing

Ageotropism: the absence of any tendency of an organ or organism to grow in a given direction because of the force of gravity. Paul T. Isley III



Tillandsia bulbosa growing upside down.
Photo taken in Belize by Ross Little 2016.

Tillandsia 'Samantha' Update

At our March meeting we discussed the *Tillandsia mooreana* complex and how the changes of *Till. kalmbacheri* being reduced to a synonym of *Till. mooreana* may affect *Till. 'Samantha'*. At that time we published in our April Newsletter that the Bromeliad Cultivar Registrar felt there would possibly be no change.

The Update

Based on the taxonomic changes noted in the 2025 publication:

Two New Species of Large Tank-Type Tillandsia (Tillandsioideae, Bromeliaceae) from Western Mexico: Insights on the Tillandsia mooreana species Complex. J. Antonio Vázquez-García, Jesús Padilla-Lepe, Rosa Elena Martínez-González, Gregorio Nieves-Hernández, Saul Cristobal-Gabriel.

Based on this taxonomic revision the new parentage of *Tillandsia 'Samantha'* is:
***Till. anatuutoensis* x *Till. mooreana*.**

Tillandsia Day June 2026, Pam Koide Hyatt discussed the recent revision of the *Tillandsia mooreana* complex which contains such species as *Till. inflata*, *pamelae*, *cretacea*, *trauneri* and *mooreana*. Pam spoke of the difficulties that were had in identifying this group of plants until this exhaustive research had been undertaken. The result being that *Till. kalmbacheri* be synonymised with *Till. mooreana* and two new species be created, those two being:

***Tillandsia anatuutoensis*:** honours Ana Teresa Nuño Rubio, an enthusiastic botanical explorer and to El Tuito region. The Tuito word is a degeneration of the word Teotl = god, Tiul = Tuitlán: place of the God or divine place or place of beauty. An area of high biodiversity and endemism in western Mexico.

***Tillandsia givnishiana*:** honours Thomas Joseph Givnish, from the University of Wisconsin-Madison, for his outstanding contributions to systematics, ecology and evolution of plants, Bromeliads in particular.



Tillandsia - Bulbous Types by Les Higgins 2018

“Bulbous Tillandsias naturally grow under or on the side of a branch. Between the leaf segments is air space that gives a fragile feel to a recently collected plant. Gently holding the bulb can be sufficient to cause the outer leaves to bend into the cavity. The plant's downward location on the branch would prevent water building up within the leaves.

The bulbous shape is considered to have evolved as a symbiotic relationship with ants. A hole in the outer leaf is invariably present in wild collected *Tillandsias*. Ants enter the plant through the hole and construct out-stations within the leaf spaces. Plant collectors report that considerable numbers of ants inhabit a bulbous plant. Ants are credited with protecting the plant against herbivores (and collectors). Within the leaves is ant excrement, left-over's of their prey and dead ants. Combined they form a decomposing concoction that ultimately becomes myrmecophytic nutrition.

Apparently the plant submits to a symbiotic relationship only when nutrient deficiency is extreme. Occasional misting of dilute nutrition causes all bulbous Tillandsia to become hard. Ants have no interest in a cultivated plant. Water cannot collect between the leaves of a solid plant thus allowing the cultivated plant to grow in any position. A phenomena known as **ageotropism**.

After flowering keep a bulbous Tillandsia as an unbroken clump. Whenever a bulb dies it will have transferred its nutrition into the other plants helping the clump to remain strong.

Bulbous types owned by the writer are *T. bulbosa*, *T. butzii*, *T. caput-medusa*, *T. paucifolia*, *T. pruinosa* and *T. pseudobaileyi*.

All are mounted on aged Australian bush timber. Lumps of She Oak and pieces of Tea Tree are used. *Tillandsia fuschii* seems most at home sitting on the very top of a mount”.

Disease Prevention: Hanging upside down is an excellent defence mechanism against rot. If they grew upright, water could pool in their central crown and cause the plant to decay.

Bulbous Tillandsias are a captivating and highly sculptural group of Tillandsias that feature swollen, hollow bases known as pseudobulbs. This unique hollow structure allows them to engage in a symbiotic relationship with ants in their natural habitats in the wild, a trait known as myrmecophily. The plants provide shelter for ant colonies, while the ants provide the plants with essential nutrients and fertilizer

Ants, Friend or Foe

Ants and Bromeliads have a symbiotic relationship, all indications are that ants living in Bromeliads are helpful with their refuse aiding in feeding plants (Friend). Let's not forget that ants move mealy bugs from plant to plant, this is when we need to be concerned about ants and Bromeliads and control their spreading of pests (Foe).

Ants are not a bad thing to have around the garden. They are tireless foragers, cleaning up organic material and hunting pests like slugs and caterpillars. Like bees, they can help plants reproduce as they wander in search of food and in turn, they represent a meal to other garden fauna such as birds and lizards. A nice way of giving ants a chance is growing myrmecophytic plants. The term myrmecophyte refers to a plant that lives in a symbiotic relationship with ants.

The genus *Tillandsia* features many myrmecophytes, many of them are arboreal epiphytes. Whilst the leaves of many Bromeliads have evolved to collect water and nutrient matter, a characteristic shared by ant-housing species such as *Tillandsia bulbosa*, are pointed leaves that protect ants from rain. This can be seen in other *Tillandsias* like *Till. butzii* and *Till. pseudo-baileyi*.



Root mealy bug were another pest discussed this month which are tiny insects that feed on plant roots, disguised by a powdery white, cottony wax. They live entirely below the soil, they are mostly detected when plants are being repotted. To eliminate them, unpot the plant, wash the roots thoroughly and repot it in fresh mix treated with a systemic insecticide or organic remedies.

Some suggestions made on how to control root mealy were e.g. soak the root mass in water with a spot of bleach added, spray with Malathion or Confidor. Be sure to spray under the leaves also. It was suggested to use diatomaceous earth (DE) in the potting mix, add one tablespoon for each kilogram of potting mix.

Alternatively: If your plant has root mealy, 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.

When a plant is removed from its pot and a white powder is seen all around the outside of the potting mix and around the inside of the pot, that is root mealybug. This white colouration is a waxy secretion from the root mealybugs, which generally covers their bodies. The root mealybug is a type of unarmoured scale insect pest which sucks fluid from the roots and causes the plant to dry out and retards its growth, and causes chlorosis (leaf yellowing). The root mealybugs have a life cycle of 2-4 months and differ from their above ground foliar feeding relatives in that they have no tailing wax filaments. The presence of ants may be indicative of a mealybug problem, for they have a symbiotic relationship with the ants. The mealybugs provide the ants with a sugary honey dew type secretion, and the ants in return protect the mealybugs and herd them to new grazing areas i.e. fresh roots or new plants. There are a number of things that can be done to eradicate root mealybugs. With Bromeliads, which are mostly epiphytic, removal of the potting mix and infected roots is not a problem, and is perhaps the easiest and most effective solution. Getting rid of or controlling the ants will help reduce the spread of root mealybugs. Coffee grounds spread over the surface of the potting mix may be useful as could an addition of silica sand to the mix. Diatomaceous earth (DE) dusted over the surface of the potting mix is very effective. More severe chemical treatments, which also work, involve using any of the following chemicals as a root dip: Rogor; Pyrethrum; Confidor; Malathion. The addition of soap or detergent as a wetting agent is also advised. Finally, one of the most common causes of root mealybugs is the use of previously used/old potting mix. **Dump all used potting mix, don't reuse it.**

Isolate infected plants from others immediately.

Scrub pots thoroughly and disinfect with a diluted bleach solution before reusing to ensure no eggs are left lingering on the sides of the pots.

Keeping your plants clean and tidy by removing old foliage helps maintain good air circulation around plants and removes hiding places for unwanted pests. Trimming hard to remove leaves close to the trunk/stem of a plant is maintaining hiding places for pests. Better option and quite easy is to split leaves down their centre and draw each half in opposite directions and they come away easily. If a significant number of leaves have had to be removed and the plant appears to be high above the potting mix, cut some of the root base off to allow the plant to sit lower in the pot.

Old, spent parent plants should be removed to allow the offsets to grow freely and improve their conformation/shape. The spent plant can either be cut off at its base or get a good grip on it and twist and twist it until it breaks away.

Trim dead tips of leaves as close as possible to their original shape.

Open Popular Vote

1st	Shane Fitzgerald	<i>Neoregelia</i> 'Star Wars'
2nd	Ross Little	<i>Neoregelia</i> 'Highland Fling'
3rd	Ross Little	<i>Billbergia saundersii</i>

Tillandsia

1st	Debbie Smith	<i>Tillandsia bulbosa</i>
2nd	Shane Fitzgerald	<i>Tillandsia</i> 'Black Feather'
2nd	Gary McAteer	<i>Tillandsia stricta</i>
2nd	Pam Barret	<i>Tillandsia stricta</i>

Judges Choice

1st	Debbie Smith	<i>Tillandsia bulbosa</i>	] Encouragement Award
2nd	Debbie Baker	<i>Neoregelia</i> 'Tears of Blood'	
2nd	Pam Barret	<i>Tillandsia stricta</i>	

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.