



BROMELETTER

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THE BROMELIAD SOCIETY
OF AUSTRALIA INC.***

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DATES for your DIARY

**6th November - First Saturday in November - Federation Pavilion
Xmas meeting - 11th December our last meeting of 2021**

Please send articles for Bromeletter to
editor@bromeliad.org.au
and all other correspondence to:
**The Secretary, Bromeliad Society of Australia Inc.
PO Box 340, RYDE NSW 2112.**

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Bromeliario Imperialis	http://imperialia.com.br/





Hello to all BSA members,

As I write this, we are in the throes of organising a resumption of our monthly meetings. Please read page 8 carefully and come to meetings fully prepared.

Unfortunately, our November bus trip will be postponed to 2022, but hopefully we will resume normal meetings in November and December. Keep an eye on our **Bromeliad**

Society of Australia Facebook page or calendar on our **BSA website** for updates.

<http://www.bromeliad.org.au/DIARY/Diary.pdf>

I hope that you have all been well during the recent lockdown and have been making the most of your time at home to engage in some of your bromeliad projects. Should you have no projects on the go, there are more ideas on mass planting and making the most of small spaces in this issue.

Bromeliads, as we all know, are an amazing group of plants surviving in a vast array of growing conditions. They just never cease to amaze with their adaptations to extreme habitats. So on pages 13-17 we look at some unusual / odd bromeliads.

As always, more input from members is always welcome, so send in what is unusual, lovely, flowering or a request for a specific topic for the next bromeliad newsletter.

Hoping to see everyone soon,
from Larissa (Editor)



Life Members:

Allan Beard
Carolyn Bunnell
Terence Davis
Ron Farrugia
Ian Hook
Graham McFarlane
Bill Morris
David Scott

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Photo Front Cover

**This month's profile
member
Dave Scott
show us his
beautiful
bromeliads.**

MEMBER PROFILE - DAVE SCOTT

Source: Interview with Dave Scott. Photos: Christine Johnson

Who introduced you to Bromeliads?

Richard and Diane Cornell. Richard and I worked for the same car dealership, I was in the panel beating shop. When Richard found out that he lived not far from me and I didn't have a car, he offered to drive me to work. Our friendship developed from there. He and Diane had a beautiful garden and through them I also met Ron Farrugia, Richard's cousin, and over time became interested in bromeliads and started attending the Bromeliad Society meetings.



What or who were the early influences that developed your interest in plants?

My grandfather was a wonderful gardener, he knew all the botanical plant names and he loved his roses. He grew everything. I found it interesting that when we were cleaning out his

property he had some very interesting broms, including an old hybrid 'Royal Wine' which Ken Woods helped to identify. By this time although I was collecting broms, I hadn't realised that my grandfather had any broms.



What is your favourite bromeliad or genus?

Not any specifically, but I like the easy to grow ones, generally these tend to be neoregelias. I don't have many billbergias, guzmanias or fussy ones.

Where do you get most of your broms from? In the beginning Richard Cornell was a great influence and I often bought anything that Richard suggested. We went on some brom road trips in the early days and visited Peter Tristram's nursery, near Coffs Harbour. These days I only buy from BSA shows and meetings and I do not buy online.



How do you support your bromeliad passion?

I have worked as a panel beater and spray painter, these days I am trying to reduce the number of days that I work, so that I have more leisure time, but people are always dropping in and giving me extra work.



What is your space like?

I have a normal size suburban backyard, the majority of which is under shade cloth. These days it looks a bit like a tapestry, because as I said previously I didn't invest in good quality shade cloth and over time I have had to patch areas where it has deteriorated. I have a Jacaranda tree that also gives shade which is quite helpful on the very hot days. So, most of my bromeliads are undercover and I have virtually none out in the open. Overall, I think I have less plants now than I've had previously, and although I have a small collection of bromeliads I always feel that I am behind in all the tasks that need to be done. I grow many of the varieties that are popular with buyers.



What problems have you encountered in your particular growing space?

When growing bromeliads on the ground I put down weedmat but I found that the ferns grow through this. I love ferns so I haven't got rid of them. But my main problem has been with the Hairy Mary, a caterpillar that particularly preys on my vrieseas, like the hieroglyphica and Red Empress. Otherwise the shade cloth offers good protection from the wind and the sun.



What bromeliads do you grow the most?

I would have to say most of the bromeliads I have would be neoregelias.

What is your potting mix?

I put in 70 % orchid mix, that is not too light or rocky, I would call it a semi-grade, as there's some composting material within that mix. I add 30% landscape pine bark (large pieces) and some dynamic lifter. I don't use slow release fertiliser.



How often do you water your bromeliads?

I was fortunate early on to be advised to suit my potting mix to my watering regime. So, a loose or open mix would require more watering, a denser mix with composting material retains water

more and therefore needs less watering. I generally hand water my bromeliads about once a week and being in Roselands, which isn't far from the sea, I find we get rain regularly. I have noticed that both my bromeliads and ferns all do much better with the rainwater, but to date I have not put in a water tank.



What advice would you give a bromeliad beginner?

- ◆ Build your structures for the long-term.
- ◆ Don't buy cheap shade cloth (I bought mine from China), and research your products well.
- ◆ Bring home what you love.
- ◆ Allow - plan room for the future - don't overdo it at the beginning, remember there are always more bromeliads.

6th November BSA Meeting

The bus trip to Mt Tomah has unfortunately been postponed to next year.

Our first BSA meeting back, is booked for 6th November which is the first

Saturday in November – as no other Saturdays are available.

**Most importantly DO NOT COME if you are:
unwell, immune-compromised, feeling reluctant to
congregate
or
not fully vaccinated.**

Should you wish to attend BSA meetings, you must comply with [all](#) the rules governing this and future meetings.

- Bring and wear your mask indoors,
- 4 sq.m. seating, so we will have a max number of attendees,
- QR scan or paper register on entry,
- provide proof of double COVID—19 vaccination; this is going to become normal everywhere from now through next year. Ensure you get this done before coming to the meeting. We must have either direct sighting of your vaccination page from your Medicare online account (from myGov), a pdf image of COVID certificate, or printout of medical exemption via myGov (NOT just doctors letter).

THERE IS NO OBLIGATION TO COME TO MEETINGS IF YOU DO NOT FEEL COMFORTABLE DOING SO.

No food will be served, but tea, coffee and milk will be available, so please bring your own cup or drinking utensil and lunch.

NB If you want a large number of plant pots, please contact Kerry immediately on 0439 998 049, as stock is in high demand and currently difficult to purchase.

Bromeliad Society of Australia

Financial Club Members Only - book sale

**Discover the world of bromeliads
- there is so much to learn!**

Bromeliads come in all sizes and grow in various habitats and understanding this will help you choose and grown your bromeliads successfully.

We are offering to members of our Society the new Bromeliad Society of Australia book 'Growing Bromeliads' for a **discounted price of \$15.00** – non-members \$20.00. The book describes over 30 different genera (group types) of bromeliads, their characteristics and growing conditions. It's a must have reference for all bromeliad collections.

As an additional bonus you can also purchase 'Starting with Bromeliads' 2nd edition by the Bromeliad Society of Queensland books at a **reduced price of \$15.00** (BSA CLUB members only, limited stock), non-members \$20.00. 110 pages, large print, by Robert Reilly.

Postage for 1 or both books is \$9.55

This is an ideal chance to purchase some Christmas presents, for yourself or others. To place order email sales@bromeliad.org.au with your address and credit card details or ring Ian Hook on 0408-202-269.



NEOREGELIAS WITH RED CENTRES

Source: FNCBSG Oct 2011 D. Beard: BSA website. Photos: K. McNicol.

Neoregelias with bright red centres are definitely ones that appeal to most people. But, which one do you have? Confused, well here is a rough guideline, but remember this size and leaf colour can vary according to your neoregelias position and growing conditions.

Difference between *Neoregelia carolinae*, *Neoregelia Macwilliamsii*, *Neoregelia olens* and *Neoregelia compacta*.

According to Derek Butcher *Neoregelia carolinae* has come to mean any Neoregelia with a red centre.

Neoregelia McWilliamsii is a very large light green species that makes for a very dramatic effect in the landscape. Think of this specimen as a Neo compacta on steroids. It is about twice to three times the size of compacta and has the cherry red center at time of inflorescence and is very prolific. When used in the landscape, this beauty propagates by way off stoloniferous runners that are capable of filling in an area or climbing up the trunk of a tree. Tops out at 24" -30" across at maturity.



Photos: bottom left and right *Neo. Macwilliamsii* mass planting and close up.

Neoregelia compacta is a prolific grower with subtle colouring, excellent form and size average 14" across. Species that works well in a subtropical landscape where a large grouping is desired.

Neoregelia olens, a mini, also has a red centre but additionally has red spots on the leaves.



Photo left: clockwise from top -
Neoregelia Macwilliamsii, *Neoregelia compacta*,
Neoregelia carolinae pink, *Neoregelia carolinae red* and
Neoregelia olens.



Compare *Neo. carolinae pink*
 with *Neo. carolinae red*



Above: *Neo. compacta*
x olens

MASS PLANTING

In Issue 8, we saw how colour and contrast can be effectively used in your garden and display areas.

Another way to make stunning displays is to use mass planting of **one species** or to use a **single**

colour theme, here are some examples to inspire you.



Dr Dale Dixon (QLD) has a wall of *Till. ionantha* which provides a riot of colour and has been filling up over the years.

(Source: BSA Facebook. Photos: left and right Dale Dixon)





Aechmea blanchetiana is a stunning, large bromeliad that looks spectacular as a mass planting as we saw in Robert Weatherdon's large pots along his dock.

Photos—gardensonline;

L. Victoria.



Lynn Wegner from South Africa shared a good idea of displaying just one species. She used an upturned basket frame which she covered with one type of tillandsia. These 'mushrooms' were set at different heights throughout her garden. As well as saving space measure, this mushroom shape adds interest to a garden. Lyn also plants suspended 'barrels', made from a cylinder of wire with one species, this is the same idea described in Issue 1 2021, in Terry Davis' profile. (Source: ELBSSA- Aug 21)



The vibrant colour of *Aechmea recurvata* looks even better when grown in a mass.

(Photos: L. Victoria)

ODD

The immense variety of bromeliads results in a never ending pursuit of the next new one. In this issue we take a look at some unusual or odd bromeliads, some of which you may want to add to your 'WISH' list.

Dyckia estevesii

Source: FNCBSG-12-2020. Photos: Pinterest; Facebook.

An Ecuadorian species named in honour of Jose Manuel Manzanares of Quito, Ecuador an enthusiastic collector and photographer of Ecuadorian Bromeliads.

This unusual form of Dyckia with its **distichous** (fan like) growth habit struggles in humid growing conditions and prefers a xerophytic (dry) location in dappled light. It requires a very free draining potting mix, but does like regular watering, just not wet

feet, so the mix must be allowed to dry out completely between watering.



www.davesgarden.com



Tillandsia 'Pink Champagne'

An unusual coloured tillandsia, posted by Dr Dale Dixon on our BSA Facebook.

Tillandsia 'Pink Champagne' is a hybrid created by Neville Ryan from QLD using a *Tillandsia ionantha* (seed parent) crossed with *Tillandsia* 'Druid' (pollen parent). It appears from this cross that

white flowers are a dominant gene.

Mounted on a piece of wood and hung high on a south facing wall this one is flowering around September in QLD.



Carnivorous Bromeliad

Source: FNCBSG-12-2020. Photo: Wikipaedia

Brocchinia reducta is one of a few Bromeliads considered to be carnivorous. It is native to southern Venezuela, Brazil, Colombia, and Guyana and found in nutrient-poor soil where it's natural habitat is swampy savannas at 900-2200 m altitude.



Photo: Robyn Waayers (flickr)
Brocchinia reducta growing in the wild in grasslands of La Gran Sabana, Venezuela.

water in the cup also emits a sweet odour, which may serve to attract ants and other insects. The result is a brightly colourful and fragrant structure to which flying insects, beetles and ants in particular are drawn

Brocchinia reducta adapts to different environments, when growing on rocks it uses its roots as anchors. Like many other bromeliads, it forms a water-storing cup with its tightly-overlapping leaves.

The leaves surrounding the cup of *Brocchinia reducta* are coated with loose, waxy scales, which are highly reflective of ultraviolet light. Since many insects are attracted to ultraviolet this is an efficient lure. The



Photo: Chandler Gorman



Photo: Chandler Gorman

Brocchinia reducta absorbs its nutrients from the outer cell wall, which is covered in trichomes that can transport molecules as small as 6.6 nm. The loose scales provide a poor foothold for landing insects, causing them to slip into the water-filled cup and eventually drown. In 2005, it was shown that the plant produces at least phosphatase enzymes in its glandular structures and is thus considered a true carnivorous plant. The enzymes and bacteria digest the trapped insects and thus release the nutrients for absorption by the leaves.

Source: **The Carnivorous Bromeliads - S. McPherson fcbs.org;**

Just 0.1% of currently known bromeliad species are carnivorous. Carnivory in the plant kingdom is extremely rare, however tank bromeliads seem so naturally predisposed towards the trapping of prey that they would appear to be the **most likely plants to evolve to become carnivorous** - yet this is not so, they are far outnumbered by almost 600 species of non-bromeliad carnivorous plants. Three species of bromeliads belonging to two genera are currently seen to be carnivorous. Two belong to the genus *Brocchinia* (*B. hechtioides* and *B. reducta*) and one belongs to the genus *Catopsis* (*C. berteroniana*). In both cases, each genus consists of around 20 species, the overwhelming majority of which are non-carnivorous regular tank bromeliads. This in itself is unusual since all other genera of carnivorous plants consist exclusively of carnivorous species - perhaps this is an indication of a the recent evolution of carnivory among bromeliads. It is certainly clear that carnivory evolved separately in the two genera after *Brocchinia* and *Catopsis* diversified from an ancient common ancestor.



Tillandsia cacticola

Source: Dr Dale Dixon - BSA Facebook Group

Tillandsia cacticola (subg. Phytarrhiza) is a species from northern Peru. It is epiphytic on shrubs and cacti in arid areas, at elevations between 325-2300 m.

It's quite a variable species both in vegetative form and inflorescence structure. There are

plants with large and 'succulent' like leaves. Plants with tightly arranged floral bracts or bracts that spread widely.

The colour spectrum of the bracts ranges from very pale to intensely pink fluorescent.

This is a favourite species that took Dale a long time to find, but he now has quite a few.



The specific epithet perfectly describes this species preference for inhabiting members of the Cactaceae. The Latin suffix '-cola' means 'one who inhabits'.

Footloose and Fancy Free

Source: Growing Bromeliads (BSA pub); Travaldo's blog.

Photos: Travaldo's blog. Map: twinkl.com



Tillandsia latifolia is a slow growing bromeliad endemic to Ecuador and Peru. It grows on sand and rocks and as an epiphyte on shrubs in a variety of arid and semi arid

habitats, from sea level to 3500m above.

It occurs in abundance on dunes in coastal deserts, roadsides, plains, bluffs, in dry scrub, stony slopes

and hanging on dry rocks. This 'xeric' species is one of the few plant species found in the Atacama Desert and along with *Till. purpurea* can dominate this landscape mainly because no other species can withstand the hostile conditions of this desert. Here it **survives unrooted** and moves around the desert blown by the wind.

The Atacama Desert is the driest nonpolar desert in the world, (average rainfall 1mm per year) as well as the only true desert to receive less precipitation than the polar deserts and the largest fog desert in the world. Both regions have been used as experimentation sites on Earth for Mars expedition simulations. Rain is exceedingly rare on this desert and the only reliable moisture comes from a fog, locally known as 'garua' which drifts in from the Pacific Ocean and can enshroud the coastal area for months.



Does *Tillandsia bergeri* exhibit photoperiodism ?

Source: FNCBSG-9-2021- R.Little and C. Larson: Mez, Repert. Sp. Nov. 14: 254. 1916. Photo: L.Victoria

A smallish species produced as a leafy stem (caulescent) that grows to around 180 mm long and forms clumps quite readily. The pale lilac petals are typified by their spiralling /twisting/wavy habit with pale rose coloured bracts. It is found in the Province of Buenos Aires, Argentina, growing on and among rocks (saxicolous) to about 75 m altitude. Being at a similar latitude to Sydney Australia, we should have little trouble growing and flowering this species here in our open gardens. It has often been said that this species only flowers when temperatures drop below 5°C. However recent discussions indicate flowering may be triggered by daylight lengths, referred to as **photoperiodism**: the capacity to respond to alternating periods of darkness and light of varying lengths as they affect growth

and maturity of an organism (**The Biology of the Bromeliads, D.H. Benzing**).

It may be that as Buenos Aires (like Sydney) has a greater variation in day length between summer and winter than in our locality, the required stimulus to flower may not be triggering the plant sufficiently to get greater flowering. An interesting experiment may be to grow this species in different aspects of your growing area giving particular consideration to daylight lengths. Grow plants in full all day sun.



In late April, very early May move it to a east or west facing porch or somewhere similar where it gets bright light for half a day, and deep shade for the early or late hours – to simulate the shortening of the day.

In their flowering season see if these flower at the same ratio as the ones you've left in their usual growing position and record your results.

Dioecious Bromeliad

Source: FNCBSB - Dec 2020

Catopsis subulata is a dioecious bromeliad species meaning the **male** and **female** flowers are on **different plants**. It grows as an epiphyte in forests at 1050-1600 m alt, southern Mexico to Honduras.

Photo below : male plant left; female plant right (Ross Smith)



Photo above left : Flower from male plant appears to have only male parts, the anthers, which are the pollen-bearing organ of the flower.



Photo above right: Flower taken from the female plant appears to bear only the female part, the stigma which receives the pollen.
(Flower photos: Mitch Jones)

FERTILISING BROMELIADS

Sources: fcb.org; BSI Journal Vol 36 –1986.

In general fertilising bromeliads is not recommended as high nitrogen will obliterate variegations....but, there is always a **BUT**, there are exceptions. Here are some hints from experienced bromeliad growers.

- **Old mothers** which have flowered may produce more pups when fertilised.
- **Tillandsias** which normally grow epiphytically will grow longer with more leaves, more roots and pups when planted in a medium and fertilised. (hint from Jim Georgousis BSI Sept 2017)
- **Newly removed pups** (hint from Kerry McNicol) do better in a potting mix with a pinch of slow release fertiliser.
- Nutrients cannot be absorbed by broms unless they are dissolved in a slightly acid solution. If your water is alkaline, you must acidify it for best results. This is perhaps why many people prefer rain water when watering as it is slightly acidic. (NB This is a gross over-simplification of a very complex subject).
- As a general rule, bromeliads in the **Tillandsioidea group** (sub-family) respond well to liquid fertilisers. These cover genera such as: *alcantarea*, *catopsis*, *guzmania*, *racinaea*, *vriesea*, *tillandsia* and *werauhia*.
- While bromeliads from other sub-families may also respond well to liquid fertilisers, problems such as plant “mal-formation” and loss of leaf colour can arise. So, it is best to proceed with caution in such cases. (Bob Reilly 2005). HINT—Review article in Issue 5, 2019 on fertilising neoregelias. Dave Scott says green leaf broms do well with fertilising but take great care with broms with coloured leaves.
- Some people apply liquid fertilisers only when the plant is actively producing new leaves. However, the plant may be using or storing nutrients even when they are not producing new growth. For example, they may be initiating the production of a flower spike, producing seed, or growing roots. Thus, it is usually best to apply liquid fertilisers through out the year. Best results are obtained when liquid fertilisers are used on a regular basis. If your fertilising schedule is more akin to a “feast” followed by a long period of “famine”, then plants may not respond well.

- At different stages of their lives, bromeliads require different amounts of the essential elements. As to which genera need what, the short answer is:
 - * Neoregelias and aechmeas need to have all the plant nutrients, except nitrogen. They will find their own.
 - * Terrestrials, such as dyckias, hechtias, puyas, pitcairnias, and cryptanthus respond well to a balanced fertilizer, even somewhat higher in nitrogen.
 - * The genera that produce spectacular inflorescences, such as guzmanias, nidulariums, vrieseas and tillandsias, benefit from a balanced fertilizer with emphasis on potassium (potash) as they approach the blooming stage.

OTHER HINTS

- ◆ Avoid applying fertiliser too late in the cool/winter season as this produces leaf elongation and loss of colour and variegation. This colour loss can last several generations.
- ◆ Watch your fertilisers N:P:K ratios. Use fertiliser with a low N component for example N:P:K ratio 3:8:25

SPACE SAVING IDEAS

Don't let a lack of space deter you from growing some lovely bromeliads. A filtered sunny position on a windowsill, a bathroom with high humidity or a frame can



hold many bromeliads. Donna Pachorek from across the ocean at San Fernando Valley has a lovely display of tillandsias (**Photo right**), using a variety of containers to add interest (**SFVBS April 2021**).

I recently bought this wall frame on Facebook Marketplace. It holds a number of tillandsias, some wired to the frame, others in pots filled with small rocks. The tillandsias are wired to heavier rocks in the pots, to stop birds and wind carrying them away. And there is still more space! (**L. Victoria**)



THIS MONTH'S HINTS

Dealing with Quilling

Source: <http://ausbroms.com.au>; K. Mcnicol. Photos: KmcNichol

The abnormal growth in leaves, which are either stuck together or have a ridging pattern along the leaf, due to dry conditions or inconsistent watering during the active growth stage is called quilling.

Genera like guzmania and vriesea are more susceptible to quilling whereas aechmeas rarely quill. As well as being caused by dry condition quilling occurs in some species and hybrids that secrete a sugary, sticky substance which makes the leaves stick together if not washed off adequately.



Uneven Tillandsia growth after quilling



Quilling in *Tillandsia*
'Kashkin'

To prevent quilling in plants that are susceptible to this, flush the central area regularly and keep the plant in an area of high humidity.

For leaves already stuck together in this way, add a few drops of mild detergent into the centre with a bit of water, leave for half an hour., then gently prise the leaves apart, being careful not to damage them, then flush the detergent out thoroughly with water.

Alternative methods include:-

- ◆ This recipe is from Len Trotman (Illawarra Bromeliad Society): 500mls of Sunlight Dishwashing Liquid / 200 mls household cloudy ammonia / 100 mls Citronella or Pine-O-Clean Disinfectant. Mix all of these into container with 5 litres of cold water. As this mixture is very concentrated use only 2-4 tablespoons

per litre of water in the spray solution or 1 litre in main 200 litre holding tanks with liquid insecticides, fertilizers or fungicides.

- ◆ Jan Townsend (Central Coast Bromeliad Society) has used Clensel to great effect. The plant is thoroughly watered before being drenched in the Clensel solution (follow the mixing instructions on the bottle). It is also sprayed down the centre of the tightly curled leaves. Some plants respond within 24 hours with leaves relaxed & spread as normal. Other plants responded well after a repeat application. The plants are then thoroughly watered to wash off any remaining Clensel.



However just because a neoregelia seems to be quite tubular in appearance, it may not mean it has quilled. A couple of species, such as *Neo abendrothae* (Photo above right) and *Neo wilsoniana* have a tubular appearance. To test if the bromeliad is growing normally or quilling, squeeze gently, if the leaves feel solid and 'glued together' then its quilled.

Coming into Summer

Source: photo iStock; gardeningknowhow.

Outdoor growing does bring a few problems the glasshouse growers are spared. The foremost is pest-control. If the ground

is infested with ground mealy-bugs or root-aphids, they must be cleaned up

first. Scale will build up in warmer weather and can be held down with a nicotine sulfate or a little oil. One of the most troublesome pests is snails and also slugs that find the dark



moist leaf-cups an ideal hiding place. They can be washed out with a hose or picked out and put on a saucer surrounded by water for birds to eat.

If your water is at all alkaline or hard, do not keep the leaf cups filled with water. If cold should damage plants, (e.g. water freezes) cut off this frozen part as soon as possible before rot sets in and wanders into the basal part. The woody caudex has generally enough dormant buds to give the plant a fresh start.



What is hard water?
Water hardness refers to the mineral content (particularly calcium and magnesium carbonates) within the water. In Sydney, water is considered 'soft' with a hardness level of about 50mg/L. Victoria and Tasmania have the softest water, while Western Australia and South Australia have some of the hardest.

Source: Water Filters Australian - wfa.com.au

Securing Shade Cloth

Source: BSV Vol 38, No 4.

Neal Earey recommends a pin for joining two pieces of shade cloth or securing shade cloth to a frame, so avoiding having to sew two pieces of shade cloth together. These pins were purchased from Abshade on eBay.

The harpoon at one end has a series of barbs to prevent it pulling back out and a hook at the other end to stop it going right through.

Neal found these easy to use and easy to create the correct amount of tension. Join two pieces of shade cloth by overlapping the two edges and inserting a series of pins down each edge as per the photo.



For attaching to the frame again wrap the shade cloth around the frame and then secure it with pins. A couple of years down the track and several storms later, Neal's shade cloth is holding together well without showing any deterioration.

Using Egg Whites

When the tips of leaves become brown or damaged in any way and you want to trim them, always create a shape to resemble the original form. Then the cut ends can be painted with the white of eggs, which seals the cut and stops further browning.

5 Hints for Growing Dyckias

Source: GCSBS May/June 2021 - Michael Lyall



1. They require a free draining mix.
2. When potting up, use a size bigger pot than you think you might need, even up to 2 sizes bigger - they grow fairly quickly, are very spikey to handle and have decent size roots which are best not disturbed.
3. On repotting add a teaspoon of Osmocote Rose and Azalea slow release fertiliser around the top of the pot.
4. When the leaves grow over the pot edges, it is very hard to get water into the pot and they can dehydrate and stress - standing in saucers may help.
5. In drier climates water every 2nd day, in a humid environment every 3rd day, in autumn and winter once a week will suffice.

RENEW YOUR BSA MEMBERSHIP

2022 ANNUAL SUBSCRIPTION FEES have **increased** due to increase in production fees: Renewal is due **1st January 2022** for membership year January to December 2022.

Annual Membership (Single/Family): Australia A\$35
NB - ** \$10 discount for members who opt to receive Bromeletter by email!

Overseas Membership:

Asia/Pacific Zone	A\$50
Rest of the World	A\$55

New Membership requires a \$5 joining fee, plus Annual Subscription. New members joining by the end of October 2021 are covered for the following year and have the benefit of the last two Bromeletters of 2021.

XMAS MEETING - 11th December 2021

Our last meeting of the year will be catered, is a **members only event**, so please book place with Helga by either

email - helganitschke@yahoo.com.au

or

text - 0447 955 562

to ensure you are catered for.

Help to make this a wonderful day to celebrate the end of an extraordinary year by bringing a **BROMELDIP GIFT**

ie a gift suitable for the same gender as yourself. Please wrap and include a tag with either 'Male' or 'Female'.

Please bring own cup as tea/ coffee/ milk will be provided.

Please apply social distancing measures and hand sanitisers.



and This
your

POLLINATION

Source: Soundgarden

Audioguidance Andreas Gröger, Botanical Garden München-Nymphenburg



Many species of bromeliads in their natural habitat, are pollinated by hummingbirds. To make sure the birds find them in the dense, tangled foliage of the jungle canopy, bromeliads have to make themselves visible for the tiny birds. Brightly colored flowers usually aren't enough, as they're too small.

Instead, some bromeliads have

tinged certain leaves with bright reddish, contrasting colors. This advertisement for pollinators is called **phyllo-flagging**. The signals can be on bracts in the inflorescences or on tips of the leaf rosettes, which direct the birds to the hidden flowers in the bromeliad tank.

Bromeliad inflorescences typically have many individual flowers, but only a few open each day. In this way, a single plant can bloom for several weeks. This provides the hummingbirds with a reliable source of nectar, causing them to make regular stops at a given plant. Biologists call this behaviour **trap-lining**. In turn, the regular visit of the hummingbirds guarantees a reliable pollination of the bromeliad's flowers.

Though nectar-sipping, pollinating birds are quite small, and the smallest hummingbird weighs just one gram! Nevertheless they're considerably larger than most insects. Thus, flowers that seek to attract birds produce large quantities of liquid nectar, which hummingbirds extract with their brush-like tongues.



'wings of light'
image © christian spencer

Photos above:

Since 2001, Australian photographer Christian Spencer has been living near Brazil's Itatiaia National Park where he has been photographing the local wildlife. Spencer has discovered a natural phenomena, when sunlight passes through the hummingbird wings it creates a prism effect that turns the bird feathers into rainbows.

Source: Facebook

Three Lesser Known Bromeliad Genera

Source: FCBS; Wikipedia; BSA website.



Disteganthus lateralis
- John Anderson

DISTEGANTHUS - Endemic to French Guiana, Brazil and Suriname, this genus (in Bromelioideae subfamily) consists of 3 known species. It is a relatively recently classified genera and is considered to be a primitive bromeliad genus that is only found in terrestrial environments. The genus name is from the Greek “dis” (two), “steg” (covering), and “anthos” (flower).



FASCICULARIA - pronounce fasick-u-lar'ea.

A small rugged species from Chile, which is saxicolous or terrestrial in its natural habitat growing on very exposed areas by the sea. It is extremely hardy, growing in full sun and thriving on sudden cold spells. The 5 species of this genus have now been reduced to one species (bicolor Photos: right - D. Sheumack) and 2 sub-species.



The old names previously used (**FCBS website**)

- ◆ *kirchoffiana* = ssp. *Canaliculate*
- ◆ *litoralis* = doubtful (moved to *Ochagavia* genus?)
- ◆ *micrantha* = ssp. *Bicolor*
- ◆ *pitcairniifolia* = not used because ill defined





NEOGLAZIOVIA has two species of perennial South American herb. Both are native to Brazil and have succulent type leaves and purple flowers. The leaves of *N. variegata*, a reedlike plant, are up to 1.2 m (4 feet) long. They contain a fibre known as caroa, which is used to make rope, fabric, netting, and packing material.

The genus is named in honor of Auguste François Marie Glaziou, French landscape designer and bromeliad collector (1833-1906). Source: Britannica; Wikipedia; BSA website

Neoglaziovia variegata - Linda Owens 01/14,
from Greg Aizlewood. (BSA website)

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When should you plant seed? As soon as it becomes available in our Seed Bank, because seeds expire ie become unviable. .

Below is the list of seeds in our Seed Bank.

<i>Neoregelia kautskii</i>	5.10.19	Terry Davis
<i>Al. imperialis rubra</i>	15.10.19	Terry Davis
<i>Pseudalcantarea viridiflora</i> (red under leaf)	23.10.19	Terry Davis
<i>Tillandsia loliacea</i>	15.08.21	Greg Aizlewood
<i>Catopsis floribunda</i>	21.08.21	Greg Aizlewood
<i>Tillandsia tricholepis</i>	21.08.21	Greg Aizlewood
<i>Tillandsia bartramii</i>	23.08.21	Greg Aizlewood
<i>Tillandsia utriculata</i> (Florida)	2.09.21	Greg Aizlewood
<i>Tillandsia capillaris</i> - unknown form	3.09.21	Greg Aizlewood
<i>Tillandsia minutiflora</i>	4.09.21	Greg Aizlewood
<i>Tillandsia myosura</i> (very limited)	20.9.21	Terry Davis
<i>Tillandsia butzii</i> var. <i>roseiflora</i>	20.9.21	Terry Davis
<i>Tillandsia butzii</i> var. <i>roseiflora</i>	9.2021	Greg Aizlewood
<i>Catopsis floribunda</i> ex Selby	9.2021	GregAizlewood
<i>Tillandsia tricholepis</i>	9.2021	GregAizlewood
<i>Tillandsia fasciculata</i> var. <i>densispica</i> (Florida) ex Selby	16.9.2021	Greg Aizlewood
<i>Vriesea regina</i>	9.2021	Greg Aizlewood
<i>Tillandsia bartramii</i>	9.2021	Greg Aizlewood
<i>Alcantarea imperialis</i> var. <i>rubra</i>	4.10.2021	Beverly Irvine

Seeds cost 50¢ per packet (plus postage) for Members and Seed Bank supporters
or \$1 per packet (plus postage) for all other enquiries:

Contact *Terry Davis* (02) 9636 6114 or 0439 343 809

If you have seed to donate please contact Terry.

Financial report

September 2021—Maureen Johns

Opening Balance	01.09.2021	\$13,769.30
Add Income		\$ 980.72
Less Expenses		\$ 2192.53
Closing Balance	30.09.2021	\$ 12,557.49

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