BROMELETTER

THE OFFICIAL JOURNAL OF THE BROMELIAD SOCIETY OF AUSTRALIA INC.

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Photo Front Cover
Broms in the Wild in Costa Rica taken by Alan Mathew 2003

Hello all BSA members,

Our ability to deal with new and varied situations has been tested in the last few months with restrictions on our habits, travel, work and socialisation. It has been a time to learn to do things differently. One is relying more on electronic forms of socialising and working and this might be our pattern for a long while.

In our last issue, Kerry shared how her bromeliads have kept her happily occupied. My garden has also been a source of joy and occupation during this weird time and I have been sharing posts of my garden with my small group of Facebook friends and following several bromeliad groups. Prior to the isolation, I rarely used Facebook but now I enjoy the posts other bromeliad enthusiasts put up. The Grace Goode hybrid photos came from a Facebook post. Our own BSA has a Facebook group which I encourage you to join as there are many familiar members online and great way to stay in touch.

Life Members:
Ron Farrugia
Graham McFarlane
Bill Morris
Ian Hook
Allan Beard
David Scott

In this issue, Mark Belot recounts his way of getting a **'brom fix'** in the absence of monthly meetings and Alan provided **'in the wild'** photos (of broms, not Alan being wild!) for you to enjoy. Thankyou to both Mark and Alan.

Our BSA group is varied in interests (tills, minis, neos etc) and expertise so hopefully the articles provide something for everyone, from the new member to the very knowledgeable and experienced. As we all have more time at home I have included further reading on related topics, if you know of others please send me the information.

Remember to send photos of your flowering broms, ideas, articles, requests for particular topics or photos of broms that you would normally bring for 'show and tell' to **editor@bromeliad.org.au** as this helps our newsletters to be varied and interesting.

As always enjoy your bromeliads, stay safe and healthy and happy reading

from Larissa

Both our August meeting and September Spring Show have been cancelled.

The September meeting is also in doubt, so please continue to check the BSA website for updates.

A few Vrieses, Neoregelias & a Quesnelia

MARK's BROM FIX

By Mark Belot, July 2020

With all the isolation restrictions and lack of BSA meetings I needed a brom fix, so I went away travelling around 1600 kilometers over 3 days. I visited three of my favourite bromeliad nurseries and I have come back satisfied, feeling calmer and more relaxed.

On the first day I had lunch and afternoon tea with Jan and Jon Townsend and on the second visited Bob and Tru Grant's nursery.

One of the new Neo hybrids we named Neoregelia Poodles (Shark Noodles x Agent Pedro)

Alcantarea & 2 xVriecantares at the front

I found some alcantarea hybrids that I had not seen before such as this Alc. Divine Plum x Hellfire. Hellfire is one of the best puppers (in above right photo—back right, the broad leaf red one)

Day three was spent at Peter Tristam's where I had morning tea and went along with Peter naming a couple of his new hybrids.

I'm very thankful to be able to visit and buy some of their lovely bromeliads.

From editor—Mark will have had further surgery by the time this edition reaches you, but hopes to head to the land of 'mango and pineapples' and visit more bromeliad nurseries as soon as he can resume driving. We wish Mark a speedy recovery and a renewed strength in his arms to lift all those large, heavy Alcantareas!

This Neo is part of Peter's Toffee grex. I named this one with Peter, Neoregelia Toffee Supreme (Shark Noodles x Lime & Lava)

MISSING YOUR BROM FIX?

As meetings and shows have been cancelled, members maybe missing getting new broms from the sales table while others have an excess of bromeliads which were ready for the Spring Show.

To enable you to get a **'Brom Fix'**, Ian has volunteered to liaise between those wanting to buy and those wanting to sell. Those wishing to open their gardens for viewing and selling please contact Ian. Pleas note buyers will need to pick up bromeliads from sellers.

Contact Ian by text (0408 202 269) or messenger via Facebook.

Report from Treasurer Alan Mathew for July 2020

Opening balance at bank 1.7.20	$17701.17
Income:	138.00
Less Expenses:	1597.13
Closing balance 30.7.2020	**$16242.04**

WHAT A LOT OF ROT!

Source: Skimmings D (April 2011) HDBS; Robertson J (Mar/Apr 2009) KABBROM.

Rot can affect the base or central cone of bromeliads, the leaves become mushy and the central cone may pop out.

Bromeliad rot happens when there is overwatering or the potting mixture itself is not free draining enough. Also this can happen when there is a change in the weather ie rainfall and humidity or not enough air circulation.

HINTS

- It better to repot newly acquired broms in your own mix, using something that works for your particular environment.
- Bark decomposes with time so your mix can become non free draining with time.
- To be free draining the plant must dry out around the base, otherwise it is like having a wet sponge wrapped around the base.
- Sand, soil, manure = increase water retention; bark, stones, gravel, perlite, bean bag foam = help drainage.
- Always check newly acquired bromeliads and whenever possible isolate before placing among all your other broms.
- Remember urban environments tend to be drier.

Crown Rot - This rot usually starts in the center cup and moves down through the plant.

Stem Rot - This rot usually forms in the stem at or below the soil line and moves up into the crown and down into the roots.

Root rot - This rot starts at the leaves and may move into the stem if not checked.

THE SCIENCE BEHIND ROT

Potato plight

Rot is caused by an organism called Phytophthera cinnamon. Phytophthera caused the serious potato disease known as 'potato blight' and was a major culprit in the 1840s European, the 1845 Irish and 1846 Highland potato famines. This organism is a fungus, with swimming spores which thrive in oxygen deficient conditions. The spores have a long time resting stage estimated a 12 to 15 years. This fungus affects other plants, not just bromeliads. There have been massive plant losses in the tomato, avocado, durian, oak, cacao, cinnamon and pineapple plantations due to this fungus. Two indicators (if not too late) are the foul smell and the blue/black discolouration around the leaf attachment. It is present in soils and potting mixes, is water borne and spreads rapidly. Plants are particularly susceptible if leaves have been damaged and during hot wet periods when cup water heats up and damages leaves.

WHAT TO DO

Tip out water but away from your other broms or you will spread the fungus; strip off the mushy leaf tissue until you get back to the good leaves; dry out; set the plant apart from others by itself or hang up to increase air flow. Consider changing the potting mix and take care disposing of the infected soil and plant material.

IF COVID HAS TAUGHT US ANYTHING... ISOLATION IS THE KEY!!!! ..... APPLIES TO PLANTS AND PEOPLE

If your plant is much loved, expensive or rare the application of fungicide maybe something you want to try. Cooper is the main ingredient in many fungicides ***so take care.*** Non copper fungicides include Ridomil (Fongarid) and Mancozeb, but always read the label before buying. Also cinnamon may be used. (see Bromeletter No 4, 2020)

Consider where you have your isolation/infirmary area for diseased broms and do not to use your normal potting area for diseased plants.

If you have a brom with rot try these methods, as occasionally you will save the plant or at least score a pup before the mother is deceased.

ABOUT VARIEGATIONS

Source: Reynolds D (Feb.2014) East London Bromeliad Society SA; Nevares de Carvaiho L F, 'Variegation in Bromeliads', BSI Journal 2000 Vol 50 (4)

The word **'variegata'** comes from the Latin derivatives variegates, variegata, variegatum meaning variable colouration with patches of different colours. Variegation is a common phenomenon in the plant kingdom, and is found in many plant families.

Nid innocentii var. striatum

A Bromeliad is known as a **'variegata'** when it has two or more different colours. Over 60% of cultivated bromeliads have bands, dots, lines and streaks but those that have leaves with lines, streaks and longitudinal bands of contrasting colours are considered to be variegated, particularly those that show differences in pigmentation between the green chlorophyll-containing tissues and the albino tissues.

In bromeliads that grow in the wild variegation appears to be rare. As a rule, variegated plants are less hardy and slower growing than normal, and those that form spontaneously in nature normally survive the competition for space and light only when man intervenes, taking them from the wild for cultivation.

Variegation is rarely found in the subfamily Pitcairnoideae, is not common in the Tillandsioideae genera, but does occurs in the genera Guzmania, Vriesea, Alcantarea. In the subfamily Bromelioideae, variegation is quite common, especially in the genera Aechmea, Ananas, Billbergia, Cryptanthus, Neoregelia, and Nidularium.

Neo albomarginata

Causes of Variegation

Although there has been much progress in the scientific research on Bromeliads, little is known about the causes of variegation but generally botanists agree that bromeliads have a rather Mutable Genetic Structure, therefore several different theories are possible.

The first of these links variegation to a **virus** infection:

A. In nature, viruses are present in plants and animals and provide a quality control system for living organisms. They can alter the genetic programming of plant cells by molecular inclusion or extraction of chromosomes. While bromeliads host viruses, the physiological mechanisms of virus infection is poorly known.

Aechmea nudicalis var flavomarginata.

B. Viruses may attack the plant meristem or main vascular system. Bromeliads are monocotyledons and as such, they mostly have parallel veins running lengthwise along the leaves. Beginning from a tissue with infected cells, as the plant grows the 'problem' is transmitted down the entire leaf, producing clearly defined lines or bands. Variegation that appears in plants grown from seed can be explained by previous infection of the pollen grains. The viruses are often no longer present when the symptoms, variegation manifest themselves.

C. Chemical substances are also capable of producing variegation in plants. It is a well-known fact that flower inducing substances produce lateral buds of the 'variegata' type in adult plants.

D. Variegation is also thought to be frequently associated with environmental factors, but there is no scientific proof to back up this assumption. Some investigators support the hypothesis that natural radiation may cause genetic mutation. Laboratory experiments show that B- and X- rays lower the number of meristem cells, which may cause variegation.

E. Factors related to microclimate, temperature, humidity and light, are also sometimes mentioned as influencing variegation. Biological stress, such as prolonged dehydration or poor nutrition, is said to bring on variegation, as are ecological disturbances such as fire, flooding, freezing, cyclones, etc. To sum up... variegation may be caused by genetic mutation or by virus infection, but it seems probable that a number of different causes can potentially bring on this effect.

Ananas comosus, medio picta - Facebook

Types of Variegation

Plants with two different types of tissues... albino and chlorophyll - pigmented, Diploid and Tetraploid, are called Chimeras. This definition can be applied to the 'variegatas'. Variegation may be fixed or mutable, temporary or permanent. Tissues with fewer chloroplasts leads to white or cream-colored tissues. The pigment Anthocyanin is present in many bromeliads, it is found in the epidermal cells and may hide both chlorophyll-pigmented and albino tissues.

There are certain visible forms of variegation that are recognized botanically:

Variegata - The white or yellow bands have no clear organization, and usually do not extend to the leaf edge. The term 'variegata' refers generically to any form of variegation i.e: Nidularium innocentii var. striatum. (photo pg 9)

Marginata - The central part of the leaf is green with the leaf margins being: ***white*** - 'albomarginata' ie: Neoregelia concentrica 'albomarginata'.

yellow - 'flavomarginata' ie: Aechmea nudicalis var. flavomarginata.

Lineata - Thin white or yellow lines run along the leaf i.e: Nidularium innocentii var. lineatum.

Medio-Picta - Meaning "Painted Centre" this type is similar to 'variegata' but with green stripes in the centre of the leaf. (photo page 9)

Tricolor - Three-coloured; usually green, cream and rose colour ie: Neo. Frankie (photo top left page 11)

Bivittatus means double stripes running lengthwise, two central bands of cream or pink on a green leaf. Reddish brown stripes or bands are found in several hybrids such as Aechmea 'Red Ribbon' and Neoregelia 'Amazing Grace' (photo on right).

Quadricolor -Four-coloured; low, red and green ie: Aechmea magdalenae var. quadricolor.

Photo: Neoregelia 'Amazing Grace' Bamboo land

Neo. Franca

Propagation of Variegates

Vegetative reproduction will lead to the replication of the mother plant, but this method is **not totally reliable** when dealing with variegates. Even the best lines, the so called "Fixed Clones" may occasionally show some non variegated pups. As a rule, variegated plants are harder to grow than the all green plants. The inflorescences are smaller than normal, plant growth is slower and the tendency to produce pups is also reduced. This is especially true of Vrieseas and Guzmanias, which are also slower to take root anyway. Once a variegated pup is seen developing, you can cut away the leaves only on the side obstructing the pup, to maximize light to the pup. If you only want a pup identical to the mother, you can remove a developing non-variegated pup prematurely and discard it in the hopes that the mother will send out another pup which will be variegated. The mother will put all its energy into the desired pup. Leave the pups on the mother plant for a much longer time than with normal broms, ie at least half the size of the parent plant. An important sign of shoot maturity is root emergence. To promote production of pups, remove newly formed inflorescence, so the plant can channel its energy into pup production. Mutable variegate broms tend to produce either albino pups or all green pups.

Albino pup of Neo. Franca

You may enjoy reading some related articles in previous Bromeletters on:

Variegations - Part 1 - breeding/ hybridising - No 2, 2018
Variegations - Part 2- plants selection/stability - No 4, 2018
Anthocyanin - No 6, 2019
Albino pups - No 3, 2020
Variegations unstable - No 3, 2020

CULTIVARS, HYBRIDS AND SPORTS

Source: GCSBS Nov-Dec 2019 No 6

The cultivar is the basic grouping for cultivated varieties. **Cultivated** plants means plants raised in cultivation, which differ sufficiently from their wild ancestors or if taken into cultivation from the wild are worthy enough of distinction from wild populations for horticultural purposes to merit special names.

The word **'cultivar'** was coined by L. H. Bailey in 1923 and is now commonly used. Cultivar naming is governed by the *International Code of Nomenclature for Cultivated Plants* (ICNCP), the current version was published in 2016. This is a separate system to that used for wild plants, the *International Code of Botanical Nomenclature* (ICNB).

Plants that can be considered as cultivars include:

- deliberate hybrids (species x species / species x hybrid / hybrid x hybrid)
- accidental hybrids in cultivation
- selection from existing cultivated stock
- selection from variants within a wild population and maintained as a recognisable entity solely by continued propagation (natural hybrids + distinctive species forms from the wild)

So looking at the above list you can see that all hybrids are cultivars but not all cultivars are hybrids.

The Bromeliad Cultivar Register (Bromeliad Society International) includes all of the above in its register.

What is a Sport?

A sport is a type of cultivar that is a visible genetic mutation that results from a faulty chromosomal replication. The results of the mutation are a segment of the plant that is distinctly different from the parent plant in both appearance and genetics. It occurs in bromeliads when the offset is visibly different from the mother plant. Sports occur both in cultivated plants and in the wild.

Derek Butcher says -

The phenomenon of 'Sporting' has become more prevalent in the past 10 years or so because of the avalanche of named variegated plants which are notoriously unstable. Just what do you do with an offset that is different from 'Mother'? To be strictly correct this should be destroyed but in reality they are not destroyed but even nurtured!

Ref: https://www.bsi.org/new/cultivar-corner/variegated-sports/


Alley Cat


All Things


Airs and Graces

MINI HYBRIDS

SOURCE: scbs.org.au; photos - Carolyn Clarke Facebook;

One of the most notable hybridists was Grace Goode who is a great example of **it's never too late** to pursue a new interest. Her hard work and determination produced over 900 hybrids. The next few pages are just a small sample of the lovely mini hybrids Grace is responsible for.


Bits and Pieces


Bitzer


Black Faced Tiger


Black Heart


Blood Red


Little Faith


Born of Fire


Catscan

You will have seen Grace's name on the **Life Members** list in the front of past Bromeletters.

Grace was introduced to Bromeliads when she was well into her 50's, when her mother gave her a Billbergia Pyramidalis Concolour. Within a few years she was travelling to conferences around the world, and became a well-known hybridist. For all the work Grace did she was awarded the Order of Australia Medal in 2004.

Take home message—give **bromeliads as gifts**, as you never know who will be the next shining light in the bromeliad world.

Cat Nap


Caviar

Curly Pet (named by Arnold & Phyllis James)

Feral

Grace started hybridising in the early 1970s, largely in response to the very limited number of bromeliads available then in Australia, producing over 800 named hybrids. As well as neoregelia and crypthansus hybrids, she has produced

Grace's Avalanche (previously known as Avalanche)

aechmea, billbergia, nidularium, and tillandsia hybrids. She has also made several bigeneric hybrids, with perhaps the best ones being the X Niduregeilas ‘Something Special' and ‘Vision Splendid.

IN THE WILD

Source: An interview with Alan Mathew; wikipaedia

How and why people travel is always interesting to other travel enthusiasts, couple this with other interests such as nature, bird watching or bromeliad hunting and the experience is amazing and wonderful. In 2003, while visiting a friend in San Francisco, they decided on a side trip to Costa Rica. Alan primarily wished to see a 'Quetzal' in the wild. You might recall just before we all isolated earlier this year, Alan gave a talk at our meeting on 'Birds' and called the Quetzal "the most beautiful bird in the world!"

Alan also chose Costa Rica as it was safe, easy to drive around (same side of the road as in Australia), roads were fair and hire cars available. It had wonderfully pristine areas of natural beauty. Having a four wheel drive was the best choice, especially as roads turned to running mud during torrential rains.

Alan's photos were taken in the Cloud Forest of Monteverde.

Along with the beautiful bromeliads and the Quetzal, Alan also saw other amazing creatures including leaf-cutter ants, huge iguanas, sloths, white faced capuchin monkeys, red-knee tarantulas, basilisk, rhinoceros beetles and a particularly nasty little snake, the yellow eyelash viper!

Monteverde Cloud Forest Reserve is a Costa Rican reserve in the Cordillera de Tilarán, in the Puntarenas and Alajuela provinces. Named after the nearby town of Monteverde and founded in 1972, the Reserve consists of over 10,500 hectares of cloud forest.

WITTMACKIA

Source: Maywald D (July 2020) FNCBSG

Pronounced witt-mack-ee'a

This genus was first named by Mez in 1897, and later merged by Smith in 1956, into Aechmea, as Smith considered the lax spikes and mucronate sepals (abruptly projecting point) of the species were sufficient characters to place them in Aechmea.

Wittmackia altocairiensis
Photo by Elton Leme

In 2017 Wittmackia was resurrected, after Aguirre-Santoro et al's phylogenetic study, when a number of species from Aechmea and the Hohenbergia subgenus Wittmackiopsis, (meaning resembling Wittmackia), were moved into the Wittmackia genus. There are 44 species in the Wittmackia genus.

This genus has two disjunct geographical centres of diversity. The first area is in the central corridor of the Brazilian Atlantic Forest in south-eastern Bahia state, with a few species occurring north from Ceara to Sergipe states. The second area is in Jamaica with a small group occurring in the remaining Greater Antilles (except Hispaniola), their adjacent islands west of the Caribbean, and the Yucatan Peninsula.

Wittmackia andersoniana

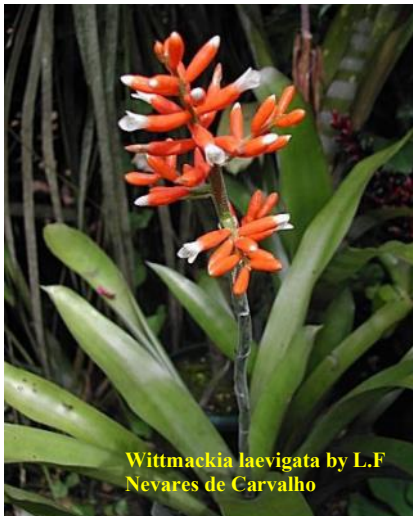
The species of Wittmackia inhabit a wide variety of environments from hygrophilous (plants growing in damp conditions), mountainous forests to dry habitats in semi-deciduous forests and tropical dry forests. Most species of Wittmackia occur in lowlands to medium-low elevations of about 600-800 metres. However, species such as Wittmackia fawcetii and Wittmackia eriostachya, can occur at 1600 metres in the Blue Mountains of Jamaica.

The most distinctive characters that separate Ronnbergia from Wittmackia are its generally longer flowers (25 – 50 mm vs 9 – 37 mm), longer corolla tubes (11 – 27 mm vs 2.5 – 7 mm), frequently pigmented flowers (vs white), and petal appendages arising from the base of the petal, when present (vs 2 mm or more when present).

Wittmackia brasiliensis

For the every-day, non-scientific collector these changes can be difficult to understand, because there are no easily identifiable features to identify Wittmackia. And it gets more complicated. In 2017 Aguirre-Santoro stated that the Ronnbergia alliance is "recognized by the combination of


Wittmackia burle-marxii photo by Tropiflora


Wittmackia laevigata by L.F Nevares de Carvalho

their sessile flowers, tubular and apically spreading corollas, and chalazal ovule appendages absent or rudimentary." The Chalaza is the part of an ovule to which the stalk (funicle) is attached.

To identify plants in the Wittmackia genus using a combination of these features is the key, not any of them individually, and no every-day collector can tell if there are any chalazal appendages without a microscope.

Wittmackia is a genus rarely seen in collections, and at the time of writing this article, there were no cultivars in the genus.

Wittmackia mesoamericana by William Cetzal IX

References: M.Wisnev, "Taxonomic Tidbits :SFVBS Aug 2017; D.Butcher, "Genus Wittmackia", an unpublished paper;Wittmackia – Bromeliads in Australia A Brief Abstract of Aguiire-Sanyoror's paper;J. Aguirre-Santoro, "Taxonomic Revision of the Caribbean-Endemic Species Wittmackia (Bromeliaceae);NSWFlora Online;J.Aguirre-Santoro, (2017) Taxonomy of the Ronnbergia Alliance (Bromeliaceae: Bromelioideae)

Further reading http://www.bromeliad.org.au/pictures/Wittmackia.htm

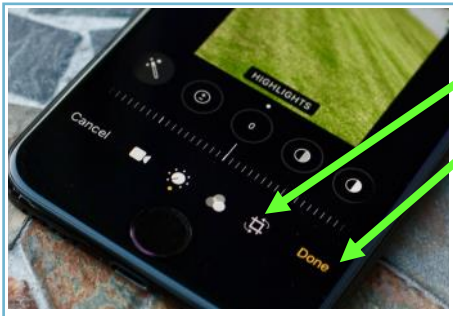
TAKING CLOSE UP PHOTOS

by Larissa Victoria

These days many people have smart phones, all of which have high tech features built into the camera. Here are some tips to get better photos, particularly close ups of bromeliads. Think of this as the same as having a great camera with manual settings and being able to set up a photo shoot with great lighting and positioning, except in this case you do this **after** you have taken a photo.

Compare the original unedited photo (left) and edited (top right) version of the same photo of an Aechmea 'Burning Bush'. Using the camera 'Editing' options I have been able to reduce the dullness of the original, bring out the red in the flower buds and sharpen the reflections in the water drops. I think it makes it a spectacular photo. Here is how you do it:

1. First consider what your taking a photo of. A photo of one bromeliad or a close up is best taken in the square frame, as this saves pixels on unnecessary background.
2. Keep a steady hand and when necessary rest your arm on something. If the wind is blowing this step is more challenging.
3. Focus by touching the screen on the primary object you are photographing. You will see a yellow square appear around to the object you wish to photograph, take photo. Re-take photo if not in focus. Editing **will not** fix a blurred photo!
4. Now you have your image, go into **'Photos'**, bring up the image and tap the **'Edit'** button (top right on iPhone 8). Now you are in the edit mode on your phone.



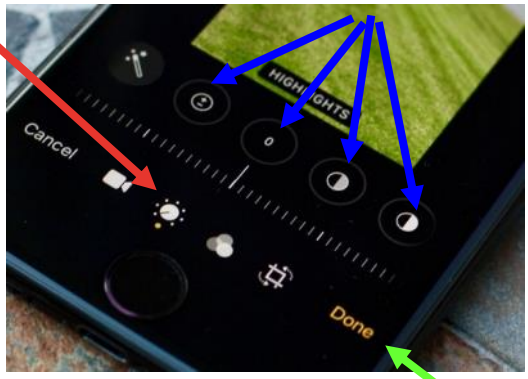
5. Click on the Crop button (square looking thing) to zoom into the section you want to highlight. Then press **'Done'**. At this point you can also rotate your photo

Tap  to rotate the photo 90 degrees

NB When you zoom in this 'Edit mode' the clarity of your photo is far better than if you zoom in while taking the photo.

That's the key to great close ups. The smart phone camera automatically increases the clarity and your picture is clearer using the EDIT method.

6. Along the bottom you will find a 'dial looking button' (red arrow), click and above it will appear numerous icons for things like 'exposure', 'brilliance' and 'highlights' etc (blue arrows). How many depends on your make and model of phone. Select one, a scale will appear underneath, then move the scale left and right to select the image you find most pleasing. There's no right or wrong - it all depends on what you want to highlight in your photo. When you're happy with image select **'Done'** (green arrow).



7. If you're not happy with image select **'Done'**. Close photo, then reopen, press **'Edit'** and select **'Revert'** to get back to original image. On iPhone it's on the bottom right.
8. **HINT:** if you are trying to take a photo very close to the ground simply turn your phone upside down then take your photo.

You can get some brilliant bromeliad images so have a play!

Please send through any great close up photos of your bromeliads for the next issue.

Below is the list of seeds in our Seed Bank.

Tillandsia fasciculate	28.5.20	Steve Molnar
Tillandsia setacea	22.5.20	Steve Molnar
Al. extensa	27.11.19	Terry Davis
Al. imperialis rubra	15.10.19	Terry Davis
Pseudalcantarea viridiflora (red under leaf)	23.10.19	Terry Davis
Tillandsia spiraliflora	9.7.20	Bob Hudson ex Chris Larson

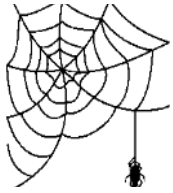
Seeds cost 50¢ per packet (plus postage) for Members and Seed Bank supporters
or $1 per packet (plus postage) for all other enquiries:

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

For a full list please go to *bromeliad.org.au*

WEBSITES

Bromeliads in Australia	http://bromeliad.org.au
Encyc of Bromeliads	http://encyclopedia.florapix.nl/
BSI Cultivar Register	http://registry.bsi.org/
Florida Council of Bromeliad Societies	http://fcbs.org/
Bromeliario Imperialis	http://imperialia.com.br/



MEMBERSHIP APPLICATION

ANNUAL SUBSCRIPTION: Renewal is due **1st January** for membership year January to December.

Annual Membership (Single/Family):	**Australia**	**A$25**
Overseas Membership:	**Asia/Pacific Zone**	**A$40.**
	Rest of the World	**A$45.**

New Membership requires a $5 joining fee, plus Annual Subscription.
(Those joining after our spring Show are covered for the following year.)
Note: Un-financial members must add $5 rejoining fee when re-applying.

MAIL ORDER PAYMENTS BY MASTERCARD/VISA

(Subject to A$10.00 minimum.)

When using Mastercard or Visa mail order facility please provide the following details, printed clearly in block letters, on a separate sheet of paper:

- Name and address of **MEMBER.**
- **TYPE of card** (Visa, Mastercard)
- **CARDHOLDER** name details, as shown on card.
- Mastercard/Visa **number** and **expiry date**.
- **CARDHOLDER** signature (essential).
- Payment details (membership renewal, book purchase, postage, etc.)

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