



BROMELETTER

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THE BROMELIAD SOCIETY
OF AUSTRALIA INC.***

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**Photo Front
Cover
Stunning
inflorescences of
Aechmea weilbachii
forma pendula
Robert Weatherdon**



Hello and welcome to a bumper issue,

We had another successful meeting, in May, with lots of great donations for the raffle table (**Photo: left**) and lots to see on the 'Just for Show' table.

Thank you to the members who consistently donate to the raffle table, it is a great way to accumulate lots of broms quickly, especially for

new members. Sari has been instrumental in getting the new '**Just for Show**' table up and running, sourcing plants and writing up descriptions. It's all about sharing information and getting to know growers and members in our society.

Now that we are coming out of COVID restrictions, this will be the last monthly Bromeleter, so you will be back to receiving issues every second month, the next one being in August. Hence the extra large issue this time.

If you haven't already, please indicate your interest in the planned bus trip to **Mount Tomah Botanical Gardens**, in November as this will be in place of our normal meeting.

Our spring show will be held over the weekend of 11th and 12th September, so start getting your sales items and competition entries ready. At the show there are a larger number of competition categories, which are listed on our website - click on Club News, on left find 1. Australia (BSA), scroll down to Other Services, and then to Competition Rules where you will find a list of Classes to enter.

Apology for a previous mistake re meeting date. Remember our BSA meetings are usually held on the second Saturday of the month and if in doubt check our website or Facebook page. I encourage as many of you as possible to post weekly on the BSA Facebook page to spread interest in our bromeliad group.

from Larissa (Editor)

Life Members:

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

WEBSITES

Bromeliads in Australia

Encyc of Bromeliads

BSI Cultivar Register

Florida Council of Bromeliad Societies

Bromeliario Imperialis

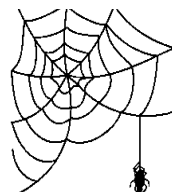
<http://bromeliad.org.au>

<http://encyclopedia.florapix.nl/>

<http://registry.bsi.org/>

<http://fcb.org/>

<http://imperialia.com.br/>





MEMBER PROFILE - ROBERT WEATHERDON

Source: Interview with Robert Weatherdon. Photos L.Victoria

It all started sometime in the 1970's when the Weatherdons, bought a bromeliad from Coles. Instantly hooked, from then on Judy would get broms wherever she could find them. Then just over 30 years ago Robert and Judy moved from their house in Neutral Bay to the current one in Kirribilli, located in a fabulous position on the harbour. However both the house and yard

required an immense amount of vision, dedication and work.

When they moved in, the garden was a steep, sloping block with a chook house at the top and a Hills

Hoist in the middle.

There were no fences and Robert recalls people would just walk through their garden to get a closer look at the water.

After clearing the land, they started laying out their new garden, getting a stonemason

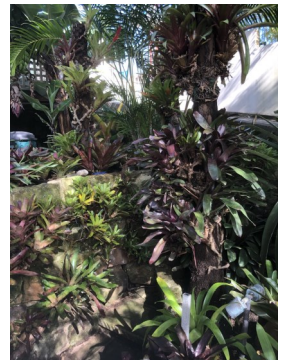
to form sandstone paths,

terraced garden beds and a circular pond. The garden was quite exposed, so to provide shade for their precious broms, they sourced tall tree ferns, **(Photo: middle left)** which today provide a beautiful, filtered light canopy over much of the garden.

Robert's garden is laid out with interesting little side nooks and crannies, so when you come into them you are surprised by something delightful. The sandstone garden beds have gradually been built up to keep bending to a minimum, and the planting extends vertically, using rock walls, tree fern stumps and tree branches. Robert likes his broms to grow like they would in their natural habitat, clumping and rambling.



Photo above - Judy planning the garden with a helper, with the broms from their old house in the foreground.





Many of his vrieaseas have clumped up beautifully over time. (Photo: top left)

The steep block necessitates a steep driveway and now, the large triangular underspace of the driveway cleverly encloses a considerable storage area, where all tools and garden paraphernalia are kept out of sight.



Robert finds nature has an amazing way of putting together colours that just look right.

Early on in their collecting phase they met Marjorie McNamara (Gosford), a brom enthusiast, who had made several trips to South America to collect broms and seed in the wild. Marjorie imported many bromeliads into Australia and had a quarantine set up as per government requirements on her property. After Judy and Robert had

purchased some broms from her, Marjorie enquired whether their bromeliads would be grown under shade cloth and when she found out they would be placed in the garden she volunteered to come down and help them work out the best position for the new acquisitions.

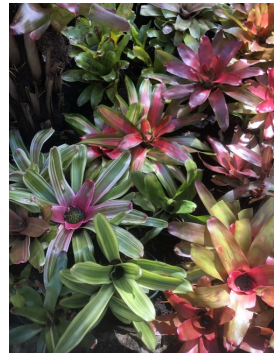
Marjorie came down, and stayed overnight with the Weatherdons. Robert remembers waking very early and hearing Marjorie already moving around in the garden, finding just the right positions for the broms they had purchased. He credits Marjorie for putting them on the right path early on, as they have had very few losses over the years.

Robert loves the way in which bromeliads grow in an artistic way, often curving and encompassing an area in beautiful flowing lines.

Left: *Aechmea* 'Burning Bush'



Photo above - *Vr. 'Rafael'* is a variegated *Vr phillipo coburgii*



ROBERT WEATHERDON

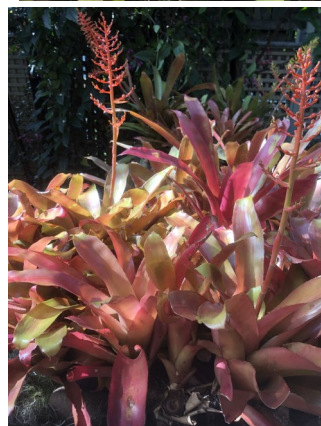
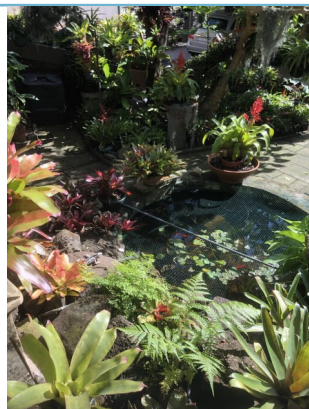
cont... Bit by bit Judy and Robert started taking special 'brom' road trips up to the North Coast and Queensland, purchasing bromeliads at markets, getting to know the growers and often being invited back to their properties to see first-hand how they

grew their bromeliads.

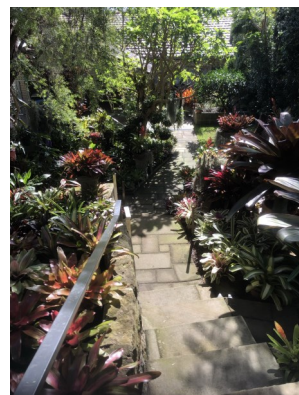
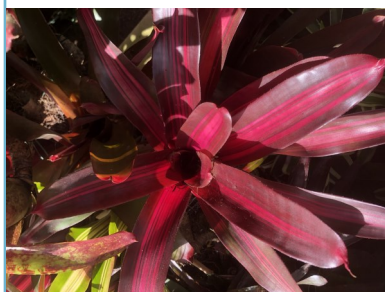
On one of their trips to Byron Bay they came across a timber merchant and Robert sourced a number of large pieces of Australian teak which are placed throughout the garden and planted with epiphytic bromeliads. The teak came from a 'cow cockie' and was over 100 years old.

(Photo: middle bottom) A wheel barrow by the front entrance holds broms that are in flower, providing colour and interest. (Photo: above left)

Robert and Judy attended many BSA Spring and Autumn Shows when they were held in Burwood and then Castle Hill. After attending one of these they decided to become members and although Robert does not attend regular meetings, he enjoys coming to the shows and getting the Bromeletter.



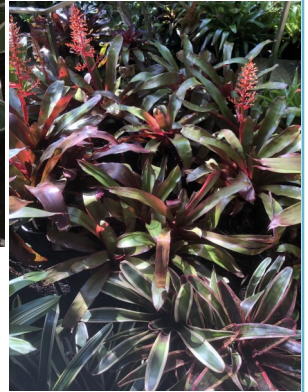
Aech. 'Pink Phase'



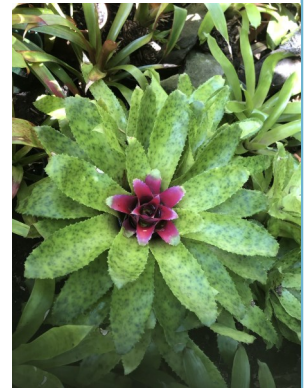
ROBERT WEATHERDON cont

Under the Brugmansia (Angel Trumpet) tree, and another shady area there are carpets of guzmanias and vriesea

varieties, which suit the lower light positions. **(Photo: middle right)** Four enormous pots each overflowing with large specimens of Aechmea blanchetiana are positioned on the edge of the waterfront and frame the house. **(Photo: top left)**



Most of the bromeliads in the garden remain in pots, which makes repositioning, repotting and cleaning up easier. When doing this, Robert brings out a small foldable table and puts it in a sunny position and does his repotting, while enjoying the garden.



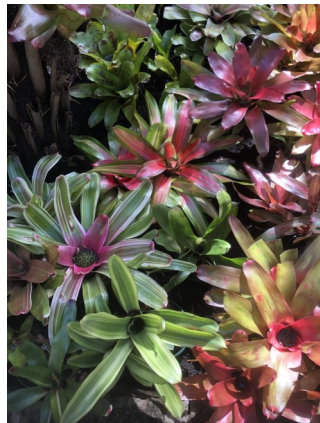
ROBERT WEATHERDON cont...



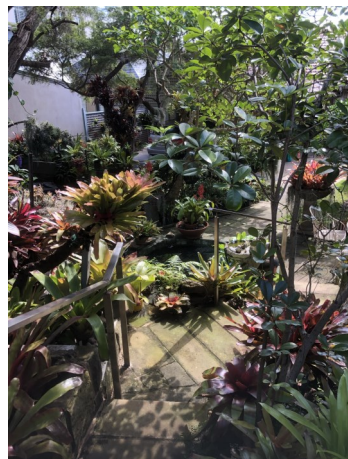
To their credit, Robert and Judy's garden won the North Sydney Garden competition two years running in 2017 and 2018. (Photo of award: top left)



Sadly Judy passed away in 2020, but the hard work that they had done together enables Robert to maintain this



delightful, largely bromeliad garden with just some occasional help.



REMINDER

OUR SCHEDULED MEETINGS

Will be on the 10th July and 14th August, in the Federation building.

**OUR SPRING SHOW WILL BE HELD ON THE
11-12th SEPTEMBER 2021**

Competition Hints

Terry's opening comment before announcing this months winners was **"there was a very high standard of entries this month"**.

So well done to all members who brought in entries!

Every entry starts with 100 points, then judges take off one point for every fault/ defect, so every meeting Terry explains the faults judges look for to help us compete better. Here are this months hints:

- ◆ If you have a bromeliad with pups too immature to survive if taken off, they maybe be left on and don't count as a fault, but larger pups left in situ do lose a point.
- ◆ When entering a colony, all plants must be mature and connected to each other ie you can't plant several pups into one pot and call that a colony.
- ◆ When deciding between two perfect looking plants, judges look at the tiniest details. While this may seem picky, it's how the winner is decided. This applied to a near perfect tillandsia entry this month which had some dead leaves when viewed from underneath.
- ◆ Your pot and plant must be clean to have hope of winning. Remove trapped large leaves and debris by hand. There are several ways of removing debris between the leaves - either turn upside down and shake, - hose out - use long tweezers to pick out the bits. This is the best method for delicate broms. You will find long tweezers for sale at the end of our sales section (with the books and labels). Ask Pat (on register) if you can't locate these. Loosen stubborn dirt at the base of leaves with artist brushes.



Plant of the Month Competition May

Open

First
Second
Third

Judges Choice

Wallisia 'Pink Plume'
Tillandsia 'Cotton Candy'
Neoregelia 'Gympie Parade'

Carolyn Bunnell
Harold Kuan
Kerry McNicol

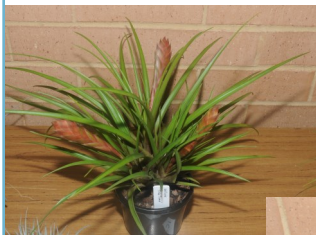
Open

First
Second
=Third
=Third

Members Choice

Neoregelia 'Gympie Parade'
Tillandsia 'Cotton Candy'
Wallisia 'Pink Plume'
Tillandsia hybrid unknown

Kerry McNicol
Harold Kuan
Carolyn Bunnell
David Scott



Left:
Wallisia 'Pink Plume'

Right:
Tillandsia 'Cotton Candy'



Middle right:
Neoregelia 'Gympie Parade'



Above: *Tillandsia* hybrid

Margaret Draddy Artistic Competition

First
Second

'Great Balls of Fire'
'The Autumn Forrest'

Warril Evans (above left)
Janet Kuan (above middle)

Plant of the Month Competition May

Novice

First

Second

Third

Judges Choice

Neoregelia 'Gold Medal'

Tillandsia bermejoensis

Tillandsia 'Dimmit's Talent'

Janet Kuan

Craig Cameron

Craig Cameron

Novice

First

Second

Third

Members Choice

Tillandsia 'Alec'

Neoregelia 'Gold Medal'

Tillandsia 'Dimmit's Talent'

Craig Cameron

Janet Kuan

Craig Cameron

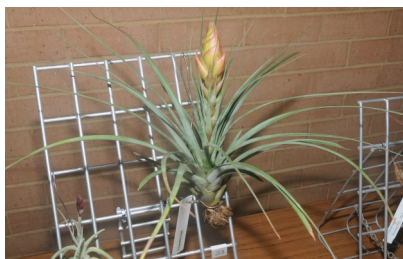


Left:
Neoregelia
'Gold Medal'



Right:
Tillandsia bermejoensis

Right:
Tillandsia 'Alec'



Right: *Tillandsia*
'Dimmit's Talent'



MAY MEETING - REMOVING PUPS

Ian and Kerry gave us a practical demonstration of how to separate pups from their mothers. We viewed a number of different ways pups form on their mothers, as this dictates how you separate them. Some of you may recall we had a **pup removal demonstration** in January 2020, but the varieties there differed to the ones we were shown this month. There is always something new to learn about broms. But first, a bit about pups from Ross Little.

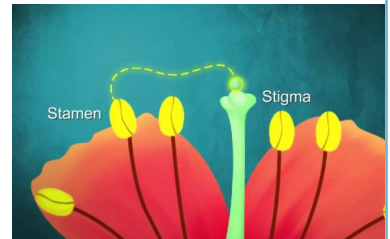
ALL ABOUT PUPS

Source: Ross Little; Diagram youtube.

Bromeliads have 2 reproductive methods to form new bromeliads.

Sexual reproduction = new plants arise from pollination which forms seed, the seeds germinate and grow into plants.

Stamen = male; Stigma = female



Asexual reproduction (scientific term) is by vegetative propagation, where the pups are produced on the parent. The parent plant is mostly referred to as a 'mother'. In this method there is no sex (ie transfer of pollen from male to female parts of the flower) or pollinating (birds, ants etc) involved.

TYPES OF PUPS

Viviparous = pups form on the stem of the inflorescence e.g. *Tillandsia secunda*, *Tillandsia somnians*, *Tillandsia flexuosa* and *Orthophytums* do this.

Stoloniferous = forming on a stolon e.g. *Neo*. 'Fireball', *Neo. pauciflora* etc.

Grass pups / Hair pups / adventitious pups = small slender growths from the base or epidermis of a plant or along the stem or trunk e.g. *Alcantarea*

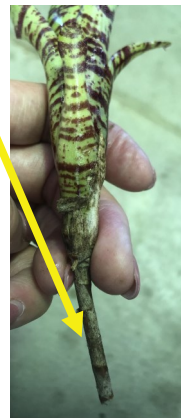
Upper pupper = a pup formed high up in the leaves or near to the base of the inflorescence e.g. *Vr. elata*, *Vr. splendens*, *Goudaea ospinae* and *ospinae var. gruberi*.

Pup / offset = these form at the base of a plant sometimes within the lower leaves e.g many Bromeliads.

Division / crowning = new plants form by crown division at the central stem or plant base e.g. *Dyckia*.

Here are some of the things we learned about removing pups:

- ◆ Firstly consider if you want to remove pups at all or whether you wish to grow your bromeliad into a colony. If you decide to grow a colony, first look at overall shape of your colony, if there are pups that do nothing for the symmetrical shape, then remove these.
- ◆ Or do you need to split a colony because it is too big for the pot?
- ◆ The easiest varieties to remove pups from are ones that produce pups on stolons. Stolons are hard wooden stems which should be cut close to the mother, giving you ample stolon length to use with fixing devices, should you wish to grow epiphytically. Stolons may be attached to tree trunks or pieces of wood using nails, wire, cable ties, or stockings.
- ◆ Quesnelias tend to have tough leaves so to take these off without damaging the meristem, split the leaves in the middle, then pull one half away horizontally, not down as this can damage the meristem. The brom leaves are weaker in the centre so pups can come through.



- ◆ Plant pup in your own potting mix up to white bit.

- ◆ Mini neoregelias look great as a colony, but when they crowd up in a pot the outer ones start to go up and out altering the shape, so remove outer ones to get your desired

shape.

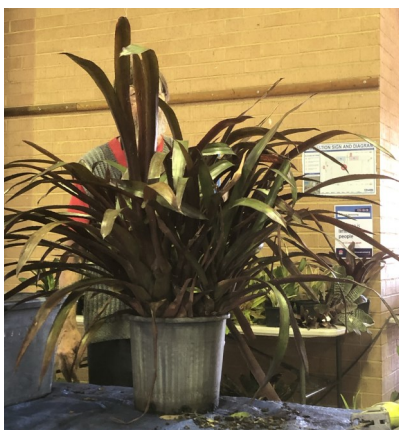
The meristem is the growth centre in broms, and if damaged the bromeliad can die.

- ◆ The white basal buds (feel like pimples) are the start of root or plant buds and are a good indicator of the earliest time to take off pups.
- ◆ Growth of pups within the leaves of the mother is common in vrieseas and alcantareas. An *Alcantarea vinicolor* with 2 large pups growing within the leaves was about to be de-pupped, but Mark Belot suggested to leave these on the mother until spring, since these larger pups have a tendency to rot when planted out in the colder weather.



REMOVING PUPS cont ..

- ◆ Even dead bits may shoot off a new pup so don't discard in haste if you are after more pups. (Photo: right)
- ◆ When left attached too long, pups may grow with a flat side, when it's too close to the mother. This makes them unsuitable for competition, as they will always have this flat side.



leaves will come off easily if you go the wrong way it's very hard to get the leaves off.

- ◆ When removing bottom leaves, work out the pattern of the spiral, then
- ◆ Brom mothers are tough and resilient, they will survive even when their stem is partly cut when taking off pups. Use cinnamon as an anti fungus (see Issue 4:2020)
- ◆ Aechmeas come in all shapes and sizes, and can be grass like which can clump up a lot. When potting up, put all same age (ie babies, teenagers, mums) together in same pot, then they will flower all at same time and provide a better display.
- ◆ *Aechmea nudicalis* pups can be problem as very difficult to get off, they come out everywhere even through pot holes.
- ◆ Orthophytum mothers don't die when they produce pups, instead they keep growing forming long trunks (No. 4). Ian broke up a very prolific pupping (No. 1) *Orthophytum* 'Copper Penny' leaving the mother with a very long trunk (No. 4). Although sharp looking, the leaves do not hurt like those of the dyckia genus and the pups (No. 3) came away from the mother with just a gentle pull. (No. 2)



REMOVING PUPS cont...

- ◆ **Cryptanthus** More than 60 species belong to this genus and are commonly called '**earth stars**' because of the flattish form and the symmetry of the leaves. These bromeliads are terrestrial and grow under a wide variety of conditions from full sun to total shade, dry to wet, and in open landscape or on forest floors. They are

Cryptanthus means "hidden flower" in Greek because the flowers are produced between the leaves and are not easily seen.



small plants ranging from 5 to 45 cm in diameter and almost all grow as low spreading stemless rosettes.

Cryptanthus come in a variety of colours from rose, silver, green, brown, white, copper as well as a combination of these.

All have white flowers deep in the heart of the plant. Many send down long roots looking for water. This is a bromeliads genus that can thrive in swamps so in cultivation often like a saucer of water. **Pups** are found on stolons or on the edge of the rosette. When the pups are ready to be separated from the mother they are easily prized away by a gentle circular motion, if they are not ready that motion is difficult to achieve. Once removed the pups have a sealed end (**Photo: right**) and should be planted into a well draining mix as these are terrestrial broms and do not survive epiphytically. Secure pups in place with an elastic band over pup top and the base of the pot, as these pups tend to bring their leaves under and push themselves out of the pot. Some offspring go to great lengths to get away from mum!!!! **Source: Growing Bromeliads by BSA; Photo: hgic.clemson.edu**



This mini *Neoregelia* 'Balboa' produced a 'freak central pup', instead of on a stolon. If folding back the leaves doesn't reveal a stolon which could be cut, then stripping back the leaves would be the only way to remove this pup.



FINANCIAL REPORT FOR MAY

Opening Balance	01.05.2021	\$18,308.10
Add Income		\$1,268.01
Less Expenses		\$1,747.94
<hr/>		
Closing Balance	31.05.2021	\$17,828.17

MAY MEETING—SHOW and TELL

George Hardy - brought to our attention that 'Frost Cloth' (available in 2 metre widths from Bunnings) can also be used as a quick cover on bromeliads on heat wave days. Being of lighter consistency it does not leave a burn pattern on the brom leaves as can happen with the heavier shade cloth.

Mark Belot - We are always fortunate when Mark brings in some of his broms because we get to see something unusual. The *Edmundoa lindenii* var. *rosea* (discolor) is a very rare brom which Mark obtained as a pup from Mark Paul, when he had only 4 pups in total. Now it is quite a large beautiful looking



specimen. This form of *Edmundoa lindenii* is not a hybrid and is not in the FCBS registry or in any Taxon lists. It is a darker green on top of the leaves (Photo: left) with purple on the reverse side (Photo: middle right)

Next Mark showed a number of neos starting with 3 pups from a *Neoregelia* 'Sonic Canvey Stripes' mother. Interestingly they all differed with the right one being marginated, middle one a medio-picta (stripe down middle) and the left one striated. (Photo: bottom right)

To review leaf patterns see Issue 9:2020.



MAY MEETING SHOW and TELL cont

All about mum - Neo. 'Sonic Canvey Stripes' is a hybrid of Seed Parent: (carolinae variegated x cruenta) x Bobbie Hull

Mature rosette up to 1 metre diameter. In strong light, arching, leathery, broad, black-spined, semi-glossy leaves randomly striated / lineated with green / white stripes flushed pink / red. No discernible cup colour at blooming. Tricolor Group. Reg. Doc. 1/2014 by G. Lawn. Country of origin: Queensland Australia.

Source Bromeliad Cultivar Register.



We were able to see and compare a *Neo. carolinae* vari. x 'Skotak's Tiger' (left) with a *Neo. 'Skotak's Tiger'* (variegated). (right).



Next were two Neo. 'Sharkula' broms. Sharkula is registered, part of a well know grex, and have been used in many hybrids by Peter Tristram and a number of others. General description : Mature rosette to 60cms. diameter with lineated green/white variegation, flushed pink in strong light. Leaves black-spined, white scurfed and with red/black tips. Tricolor Group. Grex siblings= N. Sharkicelli, Shark Noodles, Silver Shark. Reg. Doc. 3/2012 by P. Tristram Country of origin: Costa Rica

Seed Parent: carolinae x Silver **Pollen Parent:** Silver

The left photo is a Sharkula of a fairly albo marginated form. The right photo a more typical form with varied variegated. Sharkula can have striated leaves, marginated, half marginated and medio picta leaves all on the one plant.



WHAT IS A GREX?

Source: FNCBS Aug 2012 and Nov 2018; Don Beard 2015; Ian Hook, Terry Davis, Kerry McNicol.

There is quite a bit of controversy surrounding the use of the term 'grex'.

Terry Davis explains:

"The term grex can only safely be applied to orchids because they have a waxy pollen mass, so when a hybrid is made there is certainty that the pollen parent is true. For other plants that have loose pollen what is expected to be a hybrid cross could be a true crossing, a selfing or some external pollen can be transferred by birds, mammals or insects."

However the reality is that the term is used in bromeliad circles, and when it is, this is what people mean. You can choose to be a purist or not.

The term **GREX** is derived from the Latin term '**grex**' or '**gregis**' meaning flock, swarm, herd, collection, group, assemblage, band, throng, or bunch. The proper plural is greges not grexes.

In botany, it is the group of all progeny derived from the same artificially produced hybrid.

If the two parent plants are both species plants, the grex consists of virtually identical plants with some characteristics of both parents. They usually look and behave very much alike. If, however, one or both of the parent plants is a hybrid, the grex will include plants of widely variable appearance due to the genetic contributions from all the parents.

When the hybridizer names the grex, each plant in the grex carries the same name even though they were of different appearance and different genetic makeup.



Example:

Name of grex - Billbergia 'Helen of Troy' grex.

Formula of grex - Billbergia 'Helen of Troy' = 'Trojan Tiger'(mother) x Bill. 'Hallelujah'(father).

Two very different looking progeny of this grex seen in photo above

Further, a grex name applies to ALL plants with the same parentage, not just to a particular batch of seedlings.

A grex is known to the hybridist by a formula A x B, but this is only a formula not a name. In formulas the seed parent always precedes the pollen parent (ie, mum x dad). **Ian Hook adds** “A cultivar is normally associated with a species plant, such as accidental variegation, or being pushed into a different climate (or human choice) over enough generations for only some to survive and the plant eventually evolves in one direction, e.g. the best red *Neoregelia olens* registered is called *Neoregelia* ‘Marie’. As such a cultivar is normally still called a ‘species’ even though it has a registered name. This is because the process is reversible and the true species DNA has not been totally lost, e.g. *Aechmea* ‘Lucky Stripes’ is a cultivar name for variegated *Aechmea gamosepala*, and often reverts back by itself. When this happens with a hybrid it is normal to give it a NEW hybrid name”.

A CULTIVAR is also an individual which has been selected by a hybridizer from a GREX because of a particular attribute or combination of attributes. It is clearly distinct, uniform and stable in its characteristics, and when propagated by vegetative division, (either pupping or by tissue culture), it retains those clear characteristics because it is of identical genetic makeup”.

And Kerry McNicol sums up , “In the bromeliad world, we, as growers, like consistency, which we don’t get from a batch of seedlings (unlike in orchid hybridizing). So, albeit incorrect, we use the term ‘Grex’ to describe those plants from a single hybridized batch of seedlings. This may have to do until we find a more appropriate word. Looking at the Greek and botanical meaning, technically ‘grex’ does fit the bill!”



Di Tulloch's
Vr. gigantea
doing well in a
pot

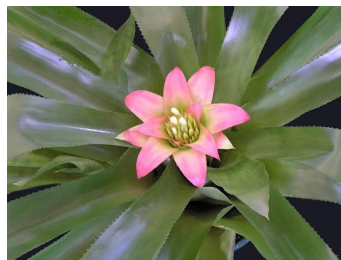


NIDULARIUM 'MADONNA'

Source: FNCBSG March 2021; bromeliad.org.au. Photos: bromeliad.org.au.



Nidularium 'Madonna', (photos top left and right) named by Jarka Rehak of Sydney in the early 1980s. The first plants were discovered in a seed batch growing at Amazon Nursery in Sydney that used to import seed from Alvim Seidel of Brazil in the 1970s and 1980s.



Nidularium 'Madonna' has a variegated sibling seedling *Nidularium* 'Miranda', (Photos middle and bottom right). The Rehaks confirmed that *Nidularium* 'Miranda' had been selected for its potential variegation and with selective breeding it has become quite stable. It would appear that 'Madonna' was from the same seed batch. We now treat 'Miranda' as a variegated sport of 'Madonna' but the imported seed from Seidel remains a mystery.



Derek Butcher states "it has suggestions of a large *Nid. innocentii* but has a scape 15cm long - primary bracts start out white but become bright red at anthesis - white petals - the inflorescence threatens to fall over because the scape is so long. I am happy to treat this Cultivar as being a *Nidularium* even though those across the Tasman (NZ) some consider it a *Wittrockia*. Their belief is based on the fact that it has what I call 'Gerry's Whiskers'. (Photo: bottom left).



Regrettably 'Gerry's Whiskers' also appear in other 'species' in *Nidularioids*. 'Gerry's Whiskers' are, they are bristle-like hairs that you sometimes find on offsets in this group. Whatever the origins of 'Madonna' and 'Miranda' are, they are both outstanding plants to have in a collection.



JOY CLARK

Joy Clark has been a member of the BSA, since approximately 2000, and started attending meetings at Burwood from 2009 and then at Castle Hill. From the start, she began pitching in to help with whatever she could, and has continued enthusiastically ever since.

Joy took a particular interest in the Show displays. When it was our turn to host the Australasian Bromeliad Conference, Joy worked tirelessly on the design and the final touches for months. Her back verandah was taped and chalked up to finalise some part of the display. Since the BSA shows moved to Castle Hill, the job has been less onerous, as this area does not allow for large displays.

Since 2020, Joy's ill health, combined with caring for her aging mother has caused her to wind back her 'extra-curricular' commitments.

So it is with sadness and great thanks we accept Joy's resignation from the 2nd Vice President and committee position. We will still be seeing Joy regularly at meetings, as no doubt she will continue to do all she can to help things run smoothly (she can't help herself)!! Thank you Joy for all your work for the society.

FOR YOUR DIARY

**In November we will have a bus trip to the
Mt Tomah Botanical Gardens to see the Puya in flower.**

Please indicate your interest to Sari or Larissa.

'BROMELIADS, LITERATURE and GEOGRAPHY'.

Source: This article is based on a small portion of a 20 page article, 100 Million Years of Bromeliad Evolution - T. Givnish (WBC 2016 Seminar), Journal of the Bromeliad Society Vol 66 (4); Wikipedia.

Photos: Nicks Adventures Bolivia; nature.org; dangerousroads.org.

The setting for The Lost World (published

1912) by Sir Arthur

Conan Doyle is believed to have been inspired by the expedition of his friend, Percy Harrison Fawcett, to the Huanchaca

Sir Arthur Ignatius Conan Doyle (1859 -1930) was a British writer and physician, best known for his character Sherlock Holmes. He studied medicine at the University of Edinburgh and subsequently worked in Aston (Warwickshire), during which time he also studied practical botany and started writing short stories.



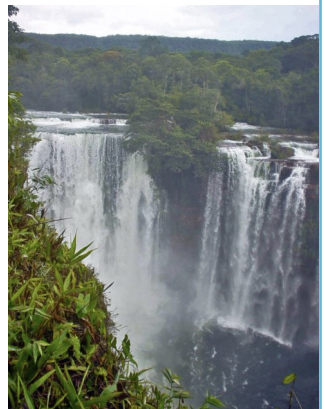
Plateau (a tepius), now part of the Noel Kempff Mercado National Park, Bolivia. Fawcett made several expeditions here, when it was an area of conflict being situated on the border of Bolivia and Brazil.

Doyle took part in the lecture given by Fawcett, in 1911, at the in Royal Geographical Society and was impressed by the tale about the remote "province of

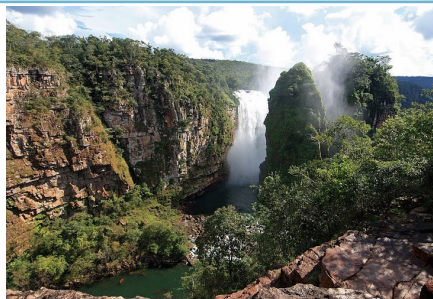
Caupolicán" (present day Huanchaca Plateau). In its day it was described as a

dangerous area with impenetrable forests, where Fawcett saw "monstrous tracks of unknown origin". Hence Doyle's inspiration for 'The Lost World'. While no dinosaurs roam this tepius, it is home to to many plants (also many bromeliads) and animals not found anywhere else in the world, such as giant

river otters, capybaras, pink river dolphins, black and spectacled caimans, tapirs, brocket deer, silvery marmosets, pumas, jaguars, maned wolves, giant anteaters, black howler monkeys, harpy eagles, storks, Amazonian umbrella birds, helmeted manakins, hoatzins, rusty necked piculet.



In 1908, Percy Fawcett first explored the area that is now the national park. Then in the 1970s geologists were sent to the area to survey the rock formations of the Precambrian Shield region in Bolivia. They published articles on the geology, landforms and produced the first maps. This expedition attracted the attention of conservation biologist Noel Kempff



Mercado. Mercado recognized the global significance of the area and commenced a campaign to preserve it, but was murdered by drug traffickers in 1986, before the campaign achieved its aims. The area is named in his honour.



Before you get excited and start planning a road trip to this amazing area, consider this amazing section of road called the 'Curvas de Huanchaca' that ascends 639 metres over 9.8 km. The road is just one-car-wide, unpaved with no safety rails.

Aechmea 'Roberto Menescal'

Source: Text and photo Ross Little - FNCBSG 2020 December

An absolutely stunning variegated tissue cultured sport of the dark form of *Aechmea chantinii*, unfortunately it's not completely stable and often gives non variegated offsets which were registered on the Bromeliad Cultivar Registry (BCR) as *Aechmea* 'Black Zombie'. The plant in flower here had no variegation as a pup only gaining a single stripe or two on a few leaves on one side of the plant only as it aged making it a poorly variegated *Ae.* 'Roberto Menescal'. It was grown to maturity giving it very bright light under white shade cloth and positioning it for what variegation it did have to get the sunlight. This action paid off with a pup with exceptionally good variegation again.



LYMAN B SMITH

Source: The Work of Lyman B. Smith by Mulford B. Foster, BSI Journal, 1961, Vol.11, No;wikipediaia.

Photos: <http://people.wku.edu/>

When you read about bromeliads you will constantly come across the name of an American botanist, Lyman B. Smith (1904 – 1997).

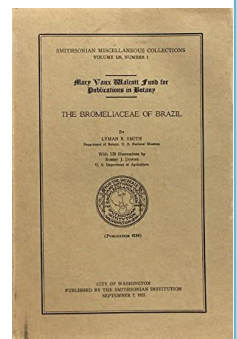
In 1926, Dr. Lyman B. Smith started his graduate work at Harvard and selected bromeliads as his major subject for his botanical study, not knowing it would lead him into a life-time interest. Lyman received a Sheldon Travelling Fellowship which, in 1929, took him to eastern Brazil, where he observed and collected bromeliads in their native state. After one year of graduate study, he finished his first work, a monograph on one subgenus of *Tillandsia* and an account of the bromeliads of British Guiana, which later became the thesis for his doctorate degree. From 1931 until 1947 Lyman was a member of the staff at the Gray Herbarium of Harvard University. In the period to 1935, he made three trips to Europe where he did considerable work at the British Museum, Kew Gardens, the botanical museums of Brussels and Liege (Belgium), and Paris (France). This is where he examined and photographed the older herbarium collections and original types of the first bromeliads collected.

In 1947, he joined the Botanical Department of the Smithsonian Institution (Washington) here as the Curator of Phanerogams he made trips to Argentina and Brazil. In 1952 he spent three months in southern Brazil studying bromeliad malaria in Santa Catarina with Padre Raulino Reitz. On trips in the state of Rio de Janeiro and Minas Gerais, he found the new *Dyckia heloisae* and *Vriesea segadas-viannae*, and in Sao Salvador, Bahia, (northern Brazil) made a re-collection of M. B. Foster's *Hohenbergia littoralis*.

In 1955 he published *The Bromeliaceae of Brazil*. Returning to Brazil, in 1956-57, he spent six months in additional botanical study. During this time as well as working on other plant families (he became an authority on Begonias) he named the new Bromeliad *macedoi* and found several new *dykia* species.



Phanerogams - an old-fashioned term for spermatophyte - comprises of those plants that produce seeds, hence the alternative name for **seed plants**.



In 1957 he published 'The Bromeliaceae of Colombia'.

Unlike most taxonomic botanists, Lyman didn't limit himself to just the study of dried herbarium specimens. To date very few botanists had experience with the living material or in ecological conditions. Lyman based his research on his own work in the habitat areas as well as by delving into past, resulting in thorough research on the Bromeliad family.

Lyman B Smith was responsible for much of the bromeliad classification we are familiar with. The first major treatise of the Bromeliad family was done in 1934-35 by Dr. Mez (Germany) who published his monograph on the Bromeliaceae in *Das Pflanzenreich* in which he recognised 50 genera in the family. Lyman recognised 45 genera in place of the 50 genera of Mez. Here are some of Lyman's changes:



- ◇ Discarded *Aregelia* and included these into *Neoregelia*.
- ◇ Created *Bakerantha*, in 1934, but subsequently discarded put into *Hechtia*.
- ◇ Discarded the genera *Chevaliera*, *Disteganthus*, and *Wittmackia*, and all three included into *Aechmea*.
- ◇ Reinstated *Connellia* (discarded by Mez).
- ◇ Discarded *Cryptanthopsis* and *Sincoraea* included in *Orthophytum*.
- ◇ Discarded *Prionophyllum* included in *Dyckia*.
- ◇ Discarded *Sodirola* included in *Guzmania*.
- ◇ Discarded *Thecophyllum*, included in *Vriesea*, with two original species of *Thecophyllum* included in *Guzmania*.
- ◇ Created *Fosterella*.
- ◇ Discarded *Lindmania*.
- ◇ Discarded *Wittrockia* included into the genus *Canistrum*, but later restored the genus *Wittrockia*.

Dr. Lyman B. Smith's list of 45 genera was recognised internationally and formed the basis of our bromeliad classification for many years until DNA testing.

As you can see we are very low on seed, so we urgently need more supplies.

Currently we have the following seeds in our Seed Bank.

Alc. Silver Plum	11/10/20	Greg Aizlewood
E. Rock Lobster	01/01/21	Amanda Barbe

Contact ***Terry Davis*** on **(02) 9636 6114 or 0439 343 809** to donate or purchase seeds.

We would like to welcome our recent
bromeliad enthusiasts



Crisanta Edwards and Maria Kamal

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- Payment details (membership renewal, book purchase, postage, etc.)

LITERATURE for Sale

<http://www.bromeliad.org.au/Contacts/BSALibrarian.htm>

TITLE	AUTHOR	PRICE
Bromeliads for the Contemporary Garden	Andrew Steens	\$20.00
Bromeliads: A Cultural Manual (Rev. ed. 2007)	BSI	\$ 6.00
Bromeliad Hybrids 1: Neoregelias	Margaret Paterson	\$25.00
Bromeliads Under the Mango Tree	John Catlan	\$10.00
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