

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

Edition: August 2024

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery
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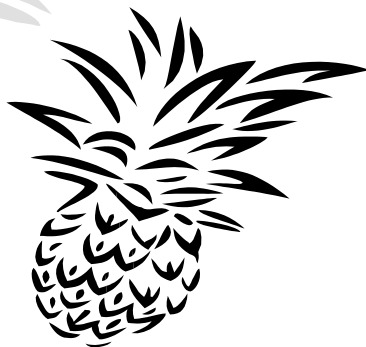
Study Group meets the third Thursday of each month
Next meeting September 19th 2024 at 11 a.m.

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Meeting July 18th 2024

The meeting was opened at approximately 11.00 am
The 10 members were welcomed.
Four apologies were received.

General Business

Shirley is finally home from hospital after 3 long months, and is doing quite well and expects to attend our September meeting. I'm sure everybody hopes to see her there. Shirley, you have been missed.

Open discussion was had about our Popular Vote competition for 2025 finally agreeing upon having a different genus each month and occasionally another suggested topic for the following month e.g. 'Mini Neoregelia' etc.

'Mini Neoregelia' - What Size Should One Be?

With space at a premium in our collections these days small growing plants such as 'Mini Neoregelia' have become very popular. However just what size a 'Mini Neo' should be is a question that has sparked some debate over the years.

The definition of what constitutes a 'Mini Neo' is very sketchy, is it measured by diameter or height? It all depends on which 'Show Schedule' you read or even who you ask. There seems to be many differing opinions from 150mm across up to 250mm across or if you go by height it's 125mm.

To try and get a definitive answer the International Bromeliad Society - Judges Handbook was consulted, assuming there would be a 'standard ruling' set for accredited international judges. The Judges Handbook has been read cover to cover with no definitive answer. Quite a number of BSI accredited judges have been asked "what standard ruling do they go by" and one gets differing answers. Why? Don't judges at shows need standard rules for judging or are there too many variables e.g. single plant in a pot, multiples, blooming, not blooming?

It appears Societies and Groups tend to run their Shows and set their own rules to a standard that suits them. Most generally allowing an approximate size range for a 'mini Neoregelia' to be up to 200mm across, leaf tip to leaf tip with cultural oversize leniency of 5 to 10mm.

The most important thing is not to get too wrapped up in rules if you want regular participation in your Popular Vote Competitions. Remember it's all about having fun, enjoying each others company and maybe learning a little about Bromeliads along the journey.

Some Miniature Neoregelias

by Bob Reilly

Neoregelias are probably the most popular bromeliads amongst Queensland collectors. The plants are mainly grown for their foliage, as the inflorescence usually consists of a cluster of blue or white petalled flowers, in the middle of the plant's "tank", which is formed by the plant's central leaves. The tank stores water, which helps the plant meet its moisture requirements.

Miniature neoregelias typically have an erect rosette formed by 10 or so leaves, all of which have very small spines on their margins. Many of the ones grown today have attractively – marked and coloured foliage throughout their life. These neoregelias grow well in small pots. The containers should have a diameter of around 10 cm.

Potting mixtures used successfully include:

- Well composted pine bark to which a continuous release, over a period of nine months or more, fertiliser such as Nutricote or Osmocote is added when the plants/pups are potted; and
- A mixture of 2 parts Peatmoss or Cocopeat combined with 1 part coarse sand. Add slow release (over a period of nine months or more) Nutricote or Osmocote to this mixture. Many people suspend the pots in the air by using plastic hangers. This saves scarce shade house space and also enables you to see the sunlight shining through the plant's leaves. This outcome often accentuates the leaves' attractive markings. These plants will, in many cases, also grow well on logs and stumps. They can be glued on, or tied into position using cable ties or old stockings.

Care should be taken in applying liquid fertilizer, as excessive fertilization can result in the plants losing their symmetrical shape and, to some extent, their colouration. If applying liquid fertilizers, a brand such as Phostrogen (N:P:K ratio is 14 : 4.4 : 22.5), which has relatively low amounts of nitrogen in it, may give the best results. In southern coastal Queensland, these plants grow well under 50% "density" shade cloth in Autumn, Winter, and early Spring and 75% shade cloth for the remainder of the year. Alternatively, they will grow quite well in lightly shaded positions in the garden, but it is important to avoid locations which receive the full afternoon sun (especially in summer).

The only pest which may cause some problems is scale. This can be treated by using an insecticide such as Folimat. Avoid spraying the plants when the temperature exceeds 30 degrees Celsius, otherwise leaf "burning" may occur (although such incidents are rare). These plants readily produce pups which will produce flowering plants in 12 to 24 months time. While pups can be removed from their "parent" when they are about one half of its height, a more visually appealing effect can often be obtained by allowing the plants to form a clump.

Pups can be potted straight into any of the potting mixtures described previously. Ensure the mixture holds the pup firmly in position, as this helps promote rapid growth. The plants should be watered at least twice a week from October to March, and once a week for the balance of the year.

Plants grown in “strong” light and with little fertilizer will be more stout than plants grown in more shade, and heavily fertilized, will be larger and have less intense leaf colouration.

Reprinted in part from: Bromeliaceae - Volume XXXIX - No. 2 - March/April 2005
Journal of: The Bromeliad Society of Queensland Inc.

The following is a list of ‘Mini Neo’ *species* and ‘hybrids’, most were published in the article, there are 100s available with a short list here of some to look out for.

Neo. ampulacea, chlorosticta, cyanea, dungsiana, olens, lilliputiana, pauciflora.

‘Alley Cat’	‘Gotcha’	‘Ritzy’
‘Aquarius’	‘Groucho’	‘Sam Smith’
‘Aurora’	‘Gympie Delight’	‘Strawberry Cup’
‘Avalanche’	‘Half Pint’	‘Strawberry Cream’
‘Black Beauty’	‘Heat Rash’	‘Sugar And Spice’
‘Cheers’	‘Hearts Blood’	‘Tara Delight’
‘Chili Verde’	‘Hot Embers’	‘Tiger Cub’
‘Chiquita Linda’	‘Hot Flash’	‘Turmoil’
‘Chrissy’	‘Night Spot’	‘Tunisia’
‘Coral Fire’	‘Nonis’	‘Wee Willy’
‘Ember’	‘Palmeres’	‘White Hot Embers’
‘Esperanza’	‘Pepper’	‘Wild Child’
‘Fallen’	‘Pheasant’	‘Wild In Oz’
‘Fireball’	‘Punctate’	‘Wild Tiger’
‘Fired Up Punc’	‘Punctate Red’	‘Zebrina’
‘Gizmo’	‘Red Nugget’	‘Zoe’
‘Gold Nugget’	‘Red Waif’	

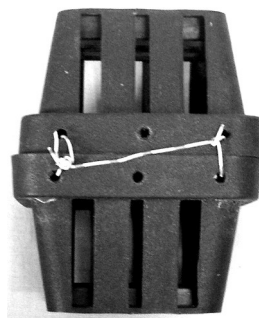
Show, Tell and Ask!

Mitch spoke about using terracotta pots for growing many of his plants in and how these pots have good drainage which he needs in his wet environment. He grows a lot of Alcantarea, Vriesea and xerics (Dyckia, Hechtia, Puya) from seed which all love lots of fertilizer e.g. three times each week at three times strength. He has found his ever growing Tillandsia collection also responds well to the growing conditions in his seed growing environment when they are grown in the terracotta pots or even in net pots for their drainage.

Gary has been growing orchids in net pots for many years with great success so it was only natural for him to apply the same technique with his Tillandsias.

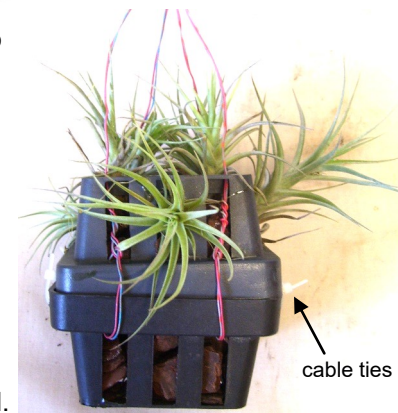


Always trying something different Gary fills two square net pots with pine bark chunks, then



ties the two pots together using both cable ties and plastic coated wire.

Once secure he uses a screw driver to open a hole between the pine bark chunks to allow a Tillandsia to be inserted.



Another promotional box of synthetic decking planks has been received by Gary which he has put to good use again. He finds his Tillandsias seem to thrive on this material which also appears, so far, to remain pest free.

Aechmea tocanina

Grown by Mitch Jones under 50% white mesh along the open edge of his shade house where it gets some direct sunlight.

The originally collected plant, the 'type form' was found by Weddell in Central Brazil, Tocantins in 1844 and described by Baker in 1889.

It grows primarily as an epiphyte, rarely as a terrestrial or saxicolous at 100 - 700 m alt. in Venezuela, Guiana, Bolivia and in Amazonian Brazil.

Aechmea tocanina has leaves of up to 1 mtr in length with thick spines. Its inflorescence is a cylindrical panicle with an almost upright raceme bearing flowers with yellow petals. It has distichous (arranged in two ranks) reddish spreading floral bracts.



Photo by Mitch Jones

What's the Gel Stuff at the Base of Some of My Bromeliads?

FNCBSG NSW Newsletter May 2012

Many Bromeliads are of the tank type water holding variety, this environment supports many life forms, mainly frogs and insects. The droppings from these animals and corpses also decaying leaf litter assists in feeding the plants.

The following quote taken from: Bromeliads by Walter Richter



"Epiphytic Bromels constitute an immense swamp in which animal and vegetable waste products are dissolved by the enzymes in the leaves. The process involves the jelly-like substance exuded by the inner faces of the sheaths. As a rule, putrefaction occurs only when there is too much pollution. Normally the leaves absorb the end product of the organic waste by way of their scales. The water in the funnels remains fairly clean and in dire need, potable." (drinkable)



Tillandsia brachycaulos
grown by
Michelle Hartwell

Tillandsia fasciculata
grown by
Keryn Simpson



Tillandsia 'Bauple'
grown by
Mitch Jones



Dyckia 'North Star' unreg.
1st Open and Judges Choice
Mitch Jones



Tillandsia tectorum
1st Tillandsioideae
Gary McAteer



'Broms in Winterland' 1st Decorative Coral McAteer



Neoregelia 'Yin'
grown by Keryn Simpson



x*Sincoregelia* 'Galactic Warrior'
grown by Michelle Hartwell



Quesnelia edmundoi var. *rubrobracteata*
grown by Kayelene Guthrie



Neoregelia 'Groucho'
grown by Helen Clewett

Donna brought along a *Neoregelia compacta* which opened a discussion about the difference between it and *Neoregelia macwilliamsii*. Apart from size the more easily distinguishable features that set them apart are the small green spots in the red part of the leaves and the marmoration (marbling) in the lower part of the leaves. Both these features are not found on *Neo. compacta*.

Neoregelia macwilliamsii

by Derek Butcher

This all started with yet another parcel from John Catlan in Queensland with a plant named *Neoregelia macwilliamsii*. Now we all know the differences between *N. macwilliamsii* and *N. compacta* don't we? One is bigger than the other!

This saga started twenty odd years ago when we grew *N. compacta* in Adelaide where it flowered in the middle of winter and promptly died. Eventually it dawned on us that the plant didn't like living in Adelaide.

Some ten years ago we heard about *N. macwilliamsii* growing rampant in Queensland, so we thought we'd have another try. AND YES, *N. macwilliamsii* grows rampant in Adelaide too, but doesn't flower! So I have to rely on my mates such as John Catlan to send me the odd parcel now and again with a flowering specimen.

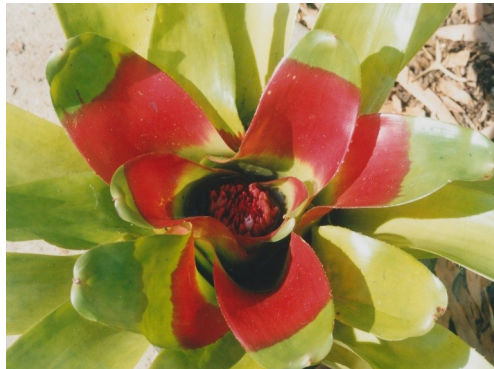


First things first. I had to photograph the plant and its sex parts before starting dissecting. This was finished including a discussion with the female of the household as to whether the top third of the petal was mauve

(Isley #45) on the outside, and rose pink (#37) on the inside, or was it lilac (#44) depending on whether you looked at the comparison chart indoors or outdoors!

Anyway this seemed more scientific than L. B. Smith's red for *N. compacta* and nothing for *N. macwilliamsii* !

The comparison began and we came very close to *N. macwilliamsii*, despite the fact that long stolons are not mentioned in the formal description. The centre leaves were red with small green dots as specified and all other detail seemed to nearly match.



Neoregelia macwilliamsii (above)

Neoregelia compacta (below)



As a layman I used to think they would pick a species most closely allied but now I am not so sure. The cynic in me keeps suggesting that if 'A' differed from 'B' because of width of leaf then it would be quickly spotted as a synonym. If 'A' differed from 'C' because of a number of factors the outcome would be more clouded! Hence my concern in Smith's comparison of *N. macwilliamsii* with *N. carolinae* rather than *N. compacta*.

You are no doubt aware I have correspondents all around the world and luckily all write and understand Australian. I have one very good contact in Hawaii who is always having problems with correctly named 'species' imported from mainland USA. So we compare notes.

Harry Luther has always pointed out to me the similarity between the two species and that *N. macwilliamsii* could be conspecific. In fact he believes that the only difference is that *N. macwilliamsii* is a *N. compacta* with one or two genes from *N. marmorata*. This makes you think of a Skotak hybrid, only it has happened in the wild and could be represented by the formula *N. compacta* X *compacta* X *marmorata* X *compacta* !

What does intrigue me is that L. B. Smith named *N. macwilliamsii* in 1969 when he was aware of the existence of *N. compacta*. If you use Smith's Key using the *N. macwilliamsii* description you come to *N. compacta*!

However, he decided to compare *N. macwilliamsii* with *N. carolinae*.

Let me digress for a moment. When a botanist describes a new species they must either describe the plant totally in Latin or do a comparison with another species in Latin. A Latin comparison is easier and seems more popular.

Lisa Vinzant said this, "The giant form of *N. compacta* is sometimes called *N. macwilliamsii*, although it exhibits flower morphology similar to the smaller *N. compacta*. Apparently it has a strong gene for marmoration since 100% of its hybrid offspring so far have been spotted plants, whereas *N. compacta* crossed with some other parent (e.g. *N. concentrica*) has shown none of this. Also you can tell the difference between the two not long after germination. A seedling with one *N. macwilliamsii* parent, be it male or female is long and grassy in a way that sets it apart from any other neoregelia that I've seen. I'm not saying that this is enough to qualify it as a separate species, just that there is more here than meets the eye". For those who use photographs or paintings to assist in naming plants, there is a botanical painting by Margaret Mee that looks identical to *N. macwilliamsii* even to the small green spots on the red centre leaves, BUT, it is called *N. compacta* !

Elton Leme is slowly working through this group of the Bromelioideae and I hope he has a solution to our problem. The *N. compacta* saga continues in Australia where John Catlan has promised to send me a flowering portion of a 'true' *N. compacta* as grown in Queensland for comparison purposes. Apparently there is a range of plants in Queensland, from a compact *N. compacta* to an extra large, rarely flowering rampant *N. macwilliamsii*. (I think they let Adelaide have the last mentioned to keep us quiet !)

Both *N. compacta* and *N. macwilliamsii* offset well and I cannot see the necessity to grow these from seed, so how did this range of plants occur?

Have successive waves of importation occurred from the USA each bringing in a 'true' clone with little pedigree?

Neoregelia macwilliamsii
showing marmoration on
the abaxial (undersides)
of the leaves.



Photo by Ian Pursey

The Naming of Cultivated Plants and Its Origins

In part from: **Most Ananas are Cultivars** by Derek Butcher and Eric Gouda in Bromeliaceae XLVIII First Qtr 14-16. 2014

The naming of cultivated plants had its origins in 1862 when Alphonse de Candolle wrote a letter which was subsequently placed before the International Horticultural Congress of Brussels, 1864. De Candolle wished to reserve Latin names for species and varieties and to use only non-Latin 'fancy' names such as 'Bijou', 'Rainbow', etc., for garden forms. He suggested that this common, traditional and ancient practice should be made the only practice. It was not until 1952 for the ICNCP (International Code of Nomenclature of Cultivated Plants) to be born. It was not until 1979 that the Bromeliad Society produced its first Check list of hybrids entitled 'International Checklist of Bromeliad Hybrids'. The following year they were appointed International Cultivar Registration Authority for Bromeliaceae but it was not until 1998 did we see the first Bromeliad Cultivar Register (BCR) published, closely followed by the on-line register in 2000 with as many photographs as we could find. It has been totally renewed in 2010, see Lawn, Butcher & Gouda (cont.upd.).

Registration is easy and costs nothing but time. It is voluntary and if you have a hybrid that is distinct and you have several asexual plants then consider giving your progeny a name and register it. You would need a couple of photos and all you need do is contact the Registrar.

Now let us look at the definition of a Cultivar according to the ICNCP - International Code for Nomenclature of Cultivated Plants:

cultivar: produced in cultivation as opposed to one growing in habitat; an assemblage of plants that has been selected for a particular attribute or combination of attributes and that is clearly distinct, uniform, and stable in these characteristics and that when propagated by appropriate means retains those characteristics.

cultivated plant: deliberately selected plants that may have arisen by intentional or accidental hybridization in cultivation, by selection from existing cultivated stocks, or from variants within wild populations that are maintained as recognisable entities solely by continued propagation. These are sometimes referred to as cultigens.

Ed: This article can be found in full on the BCR under Ananas NOTES. Originally published regarding cultivars and hybrid registration of Ananas, however the same principle of registration can be applied to all genera of the Bromeliaceae.

Supplemental Feeding of Bromeliads

W. C. Frase

Although bromeliads are very tenacious of life, they cannot do their best on air and water only, and usually simply stand still when deprived of adequate nutrition. It has been definitely proven that the effects of artificial feeding are always beneficial and often dramatic.

In the natural state, purely epiphytic bromeliads subsist almost entirely by the absorption of gas in the forms of carbon dioxide and ammonia and dissolved organic material falling upon them. This natural feeding goes on more or less continuously according to the amount of rainfall or fog condensation during evening and early morning. Those species and varieties which possess water holding abilities depend less upon gas absorption and more upon drawing in digested and dissolved organic matter which has fallen upon them and has become lodged in the leaf axils. This organic material is in the form of bird manure, twigs and leaves, air borne ash and dust, dead insects and other small animals. The roots of terrestrial bromeliads also absorb nutrients, but this activity varies with different species.

Realizing that a collection of many different bromeliads growing in a greenhouse must, for the sake of efficiency and economy, be fed in the same way with the same material, a compromise diet must be found that will satisfy most kinds. This can be accomplished quite satisfactorily by placing the plants in their proper natural relationships to each other, or as some call it, stratification. This is, in descending order, small purely epiphytic Tillandsia highest, tank Tillandsias next, then rough Aechmeas, tender Aechmeas, Vrieseas and Guzmanias next lower, and Nidulariums lowest of all. When feeding material is sprayed on plants arranged in this fashion, any excess drips off those above onto those below so that little material is lost.

It has been found that a completely dissolving chemical fertilizer roughly of 10% nitrogen, 5% phosphates and 5% potash works best when alternated every other week with a brew of liquid sheep manure. Both kinds must be used very judiciously and sparingly. Use only one feeding of either material per week. Most prepared, completely soluble, orchid fertilizers give very satisfactory results when one-half the concentration recommended for orchids is used.

Sheep manure brew is made by placing ten pounds of commercial dried sheep manure in a 25-gallon covered tub or other container and filling with water. Allow mixture to stand for a week before use. Resulting liquid when ready for spraying will be about the colour of strong tea and all solid matter will have settled to the bottom. Use this liquid diluted again one part to ten parts water.

Both of these liquid foods are best applied by hand with a trombone bucket sprayer for smaller collections of plants. Power sprayers may be used for large plantings. It is not advisable to run corrosive fertilizer mixtures through automatic mist systems, as clogging of mist-heads will eventually result.

Open natural gas burners and small unvented kerosene burners used for heating in greenhouses give off large quantities of carbon dioxide gas which is absorbed by the plants and used by them in growth processes. This in addition to liquid feeding often produces phenomenal results.

Better colouration, larger plants, more rapid propagation, timely flowering and that robust and handsome health so much admired by all who grow plants, will be the reward of any good supplemental feeding program faithfully attended to. It is well worth the extra effort to feed bromeliads because the results are always so gratifying.

Cultural Hints

Richard Oeser, M.D.

If you want to get long, strong roots, put the bromels in pure German peat. That material is acid, but contains no fertilizing substances. After the bromels have developed roots they must be fertilized regularly.

I have noted that old dead wood that has been used for years in the humidity of a greenhouse becomes useless for epiphytic plants. I think that the old wood must lose its natural acidity and therefore the plants refuse to make roots. If you take plants that have been growing on an old piece of wood and attach them to a fresh limb, they will almost at once make a lot of new roots.

Stanton E. Nadig

Needing to do some potting recently, and having no osmunda on hand, I improvised a mixture of two parts German peat, one part granite grit, and one part sphagnum, and found that it gave better results than straight osmunda. The watering had to be watched a little more closely but the results were worth it. When fir bark became available, I used it as a base with different ingredients added, depending upon the plant to be potted. Granite grit is a must in every mixture for bromels, orchids and other plants requiring a pH of 6 or less. For the limestone-clinging type of bromeliads I use a mixture of four parts peat, two parts calcite chicken grit, one part humus, and one part charcoal.

Reprinted from: Bromeliads a Cultural Handbook, The Bromeliad Society Inc. 1977

Ed: Bromeliad cultural hints haven't changed much over the years e.g. fertilize regularly, keep your mix fresh, adjust your mixes ingredients accordingly and adjust your watering to suit. Calcite chicken grit - crush egg shells in a blender.

Open Popular Vote

1st	Mitch Jones	<i>Dyckia</i> 'North Star' unreg.
2nd	Michelle Hartwell	x <i>Sincoregelia</i> 'Galactic Warrior'
2nd	Helen Clewett	<i>Neoregelia</i> 'Groucho'
3rd	Kayelene Guthrie	<i>Quesnelia edmundoi</i> var. <i>rubrobracteata</i>
3rd	Keryn Simpson	<i>Neoregelia</i> 'Yin'

Tillandsioideae

1st	Gary McAteer	<i>Tillandsia tectorum</i>
2nd	Keryn Simpson	<i>Tillandsia fasciculata</i>
3rd	Mitch Jones	<i>Tillandsia</i> 'Bauple'

Decorative

1st	Coral McAteer	'Broms Winterland'
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Judges Choice

1st	Mitch Jones	<i>Dyckia</i> 'North Star' unreg.
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Web Links for Checking Correct Identification and Spelling ?

Bromeliad Cultivar Register (BCR): <http://registry.bsi.org/>

Refer to this site for correct identification and spelling of your hybrid or cultivar.

Bromeliad Species Database (BSD): www.bsi.org/members/?bsd

Refer to this site for species identification, photos, descriptions and more.

New Bromeliad Taxon List : <https://bromeliad.nl/taxonlist/>

Refer to this site for latest species name changes and correct spelling.

Bromeliads in Australia (BinA) <http://bromeliad.org.au/>

Refer to this site for its Photo Index, Club Newsletters many with
Table of Contents Index and there's Detective Derek Articles.

Keep these web sites set as desktop icons for quick reference access.

Where do I Find the Dates ?

www.bromeliad.org.au then click "Diary".

Check this site for regular updates of times, dates and addresses of meetings
and shows in your area and around the country.