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

Study Group meets the third Thursday of each month

Next meeting 20th March, 2014 at 11 a.m.

Venue: PineGrove Bromeliad Nursery

114 Pine Street Wardell 2477

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Discussion: February 2014

General Discussion

Editorial Team:
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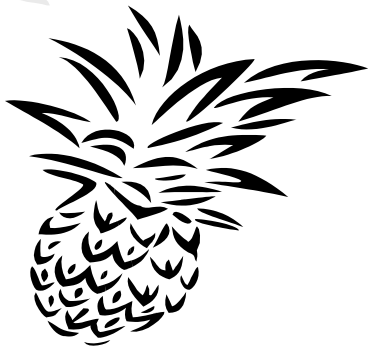


Meeting 16th January 2014

The meeting was opened at approximately 11.15am.
The 27 members and one visitor present were welcomed.
A total of four apologies were received.

The meeting began with Ross welcoming and wishing everyone a Happy New Year, then handing out the Newsletter amongst much chatter and excitement as everyone seemed very keen to greet and share stories with each other after Christmas and the New Year holidays.

We congratulate and wish Laurie a Happy 80th Birthday and on receiving his OBE, I'll let you into a secret, it didn't come from the Queen!, but his dear wife.

Our mail for the month was the BSI Journal which will go into the Library for future borrowing.

Everyone was reminded to sign the attendance book and do so individually and not to sign your partner / wife, husband etc. in, printing your name in the appropriate column and then initialling or signing your name.

Much discussion followed about a monthly membership fee as the costs of our Newsletters continue to rise, as well as the general running costs of the group. To give our members some idea of the extra costs, it has been necessary to purchase a small recording device for recording our meetings, about $90.00, a set of batteries lasts a meeting and one listening replay, so now we either keep buying batteries and of course they are the expensive size not the standard, or buy a specific battery charger and rechargeable batteries.

As our basic income from raffles and member plant sales' commission is relatively static, we discussed the reduction of colour printing, the size and content, as ways of reducing the costs, however, everyone was in agreement that we maintain the high standard of the Newsletter and size, and that we set a monthly Study Group attendance fee of $2.00 per attendant.

You are requested that, when signing on as from the February meeting, please indicate in the attendance book that you have paid your $2.00 fee by ticking in the appropriate column next to your name, thank you.

A general plea went out from the editors for more members to contribute articles to the Newsletter or short talks at our meetings, we need to hear and read of your individual experiences, growing bromeliads, particularly in this long hot dry summer, your experiences with or without bleaching or burning, your watering regimes, of seeing, comparing or researching on the web or how you have dealt with pests and diseases and the results you achieved.

Come on everyone if Ross, Kay and I can spend hours doing this on the computer you can give us ten or fifteen minutes of your time contributing.

Ross and his editorial team do not wish to receive the silent response too often to the request for contributions and talks!!

Lesley, has kindly agreed to give a talk and write an article for the Group on *Bromelia balansae* for February.
Shane has kindly offered to demonstrate to small groups, his expertise in researching the web and investigating Bromeliad websites such as the BCR database.
Meg has offered to do a talk on her overseas travels, when she returns from Hawaii.

Ross was asked to raise the issue of boxes and disappearing boxes, please when you bring your plants in boxes, **label the box with your initials/name**, then others will not borrow it thinking it is alone, not loved and certainly not for the taking.

A general discussion was held as to whether to continue having member plant sales, with the consensus of yes, we would continue, with a $1.00 per plant sold, going to the Group funds.

Nomination of Office Bearers.

The Editor: Ross was again unanimously voted to the position of Editor in Charge, as were Helen, Kay and Trish as assistant editors.

The Treasurer: Helen Clewett
The Banker: Debbie Smith.

Plant Competition Judges: David Lewis-Hughes, Meg Kerr and Ross Little.

Results recorder and exhibitioner: Gary McAteer.
We will retain the three competitive sections:

1. Open Section.
2. Novice Section
3. Decorative Section.

Librarian: Lesley Baylis

Member Plant Sales: Flo Danswan

Raffle Co-ordinator: Caroline Lewis-Hughes.

It was requested and accepted, that a Judge's comments segment be added, after the results are given, these comments will constructively help the growers in achieving excellent growing and exhibiting results.

Show and Tell

Laurie showed an *Aechmea* flower head which he wanted identified, it was a spineless form of *Aechmea fasciata* which was suggested may be *Ae*. 'Primera'. Much discussion followed, looking at the variability of the flowers, in size and form and also the difference between quilling and ribbing and how they are related to the different forms of *Ae. fasciata*. Differences with tissue cultured and vegetative propagation and the varying results also generated much comment, the discussion concluding on the topic of chemically induced flowering.

Kay D. introduced us to *Neoregelia* 'Sam Smith' a brightly coloured medium sized plant and the subject of 'overgrown'. Kay was curious and went in search of information, finding an article written by Sam Smith about large *Neoregelias* and how, on many occasions exhibiting his bromeliads, he would see his plants disqualified because as the judges had decreed they were 'overgrown' or basically too large for the assumed size *Neoregelias* should grow to for the standards of the day. Sam Smith after much investigation concluded that "a bromeliad may be well grown but not overgrown". You may read his article from the July-August 1988, issue of the Journal of the Bromeliad Society. (reprinted p.6)

Ross posed the question, do we all know what *Neoregelia compacta* looks like? and held up a well grown specimen. We of course had it wrong as the plant on show was *Neo. schubertii* which has white flowers with blue edges to the petals, while *Neo. compacta* has red petals. Well! nobody is really sure at the moment, correct identification can be a complex process, with much investigation and consultation taking place, as well as growing the specimens side by side and closely observing the differences, before declaring we officially have *Neo. schubertii* in Australia. We will let you know! (Late News page 14)

Kevin Jones displayed a beautifully framed photos of his bromeliad collection individually photographed by his grandson. Together they mounted the photos to make a wonderfully colourful picture to be enjoyed on the wall of their home.

Les gave his talk on mealybugs published in the January Newsletter emphasising what damage they can do to our bromeliads, particularly Cryptanthus. Les outlined the symbiotic relationship ants and mealybugs have and how important it is to discourage ants from your plants. A management approach was outlined using sprays, potting mixes and natural additives that can be used to deter these pests.

From the Editors: Remember some sprays can be harmful to bees, so only spray when bees are **not active** and with great caution.

Quesnelia 'Tim Plowman'

Tillandsia ionantha

Tillandsia araujei

Aechmea fasciata

Tillandsia 'Houston'

Pink was never my favourite colour until .....

Photos taken and presented by Lesley Baylis for our 2013 Christmas photographic competition.

Aechmea weilbachii var. weilbachii forma pendula

Overgrown

by Sam Smith

This article by Sam Smith originally appeared in the July-August 1988 issue of the Journal of the Bromeliad Society and is reprinted from the fourth quarter newsletter of the BSSF (Bromeliad Society of South Florida).

Being a relative newcomer to the world of bromeliads, I'm still learning some of the key words that apply to bromeliads and bromeliad culture. During 'show and tell' at one of my first meetings I heard someone whisper in a derogatory tone, "overgrown". To me the plant in question seemed large and beautiful. Later, at my first show, I again saw large and beautiful plants with red or yellow ribbons. When I turned the score card over, there was that dreaded word:"overgrown". The explanation given was that the plants were too large. For months I have pondered this question losing great amounts of sleep trying to solve this apparent anomaly. First, I consulted the standard books of Padilla and Rauh. Nothing listed in the index. Reading through the section on culture one learns how to grow bromeliads, but not how to overgrow them. Maybe it's a disease? Fusarium fungus is mentioned as are mealy bugs, a Gymnnapsis and a couple of Diapsis, but no "overgrown". Since the show was sanctioned by the Bromeliad Society, Inc., perhaps the answer lay in the cultural handbook. Instead of "overgrown" I find and I quote: "Better coloration, 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." After receiving no help from A Bromeliad Glossary and Walter Richter's Bromeliads, I could no longer put off reading David Benzing's formidable Biology of Bromeliads. Having thoroughly comprehended this work, I am left with one conclusion: a bromeliad may be well grown, but NOT "overgrown". There are many factors that control the size of individual plants. If the plant does not receive sufficient nutrients, it will be stunted. Improper light also causes stunting

or deformity, the long strappy green leaves we are all familiar with. In epiphytes, the stability of the mount can cause variation in plant size. I have two specimens of *Tillandsia utriculata* from the same gene pool, grown under identical conditions except that one was attached to a 1cm twig while the other was attached to a 30cm live oak trunk. The plant sizes are proportional to their supports. The maximum size a plant can achieve is controlled by its genetic makeup. In isolated populations there is considerable intraspecific variation in genetic makeup. For example, the Florida *Tillandsia pruinosa* is a rather small plant; however, its Mexican counterpart is several times larger. The Jamaican *Tillandsia bulbosa* is likewise several times larger than its Mexican cousin. Individuals in some species vary considerably even in the same population. There are many ways in growing plants to obtain a desired effect. One can vary the soil pH to control flower color in some plants. One can limit the available nutrients to obtain the desired results, bonsai being an obvious example. A well grown 30-year old pine tree would not be bonsai, but lumber. To grow these enviable plants referred to in the cultural handbook several ingredients are required. Light is necessary for all bromeliad growth. Too little, and the plant tries to compensate by elongating its leaves and getting rid of extra pigment except chlorophyll. Too much, and the leaves burn. Supplemental nutrients help the plant grow to its full potential. Too much fertilizer concentrated either in the cup or about the roots will dehydrate the plant and frequently cause death.
A firm mount is important particularly for epiphytic growth. No bromeliad can grow without water. If good air circulation and well drained medium are provided, most plants can take a surprising amount of water.

What about “overgrown”? After learning only the very basic plant genetics and growth physiology, I can now sleep at night knowing there is no such bogeyman.

Photo one *Neoregelia* ‘Sam Smith’ followed by three stages of growth from pup to a near mature plant.
Photos by Ross Little

Aechmea pectinata - Marie Essery
Equal 1st Open

Neoregelia 'Sonic Canvey Stripes'
Shane Weston Equal 1st Open

Neoregelia 'Zoe' - The McAteers
1st Novice

Tillandsia leiboldiana - Lesley Baylis
Judges Choice

Cryptanthus in a Bowl -1st Decorative
Caroline Lewis-Hughes

Neoregelia 'Shelldance' grown by
Flo Danswan

Neoregelia compacta

Neoregelia schubertii

Framed photos of some of Kevin's collection put together with his grandson.

Photo's supplied by: Ross Little

The Barbed-Wire Fence Bromeliad

by Lesley Baylis 2014

This amazing plant has many names it seems - "heart of flame" or "heart of fire" but I bought mine as *Bromelia balansae* and it came with a warning ! "Are you sure you really want THIS particular bromeliad ?" I was quizzed when purchasing the plant at Olive Trevor's nursery and I said "YES YES they are beautiful when they flower" but Olive knew something else about them....!! They have teeth....!! The sort that grab you and tear you and won't let you go. I was contemplating that very thought when I cautiously crept close as the inflorescence developed. I really wanted to know if there was any fragrance but decided that I didn't want to be skewered for my trouble!

So now for some facts:

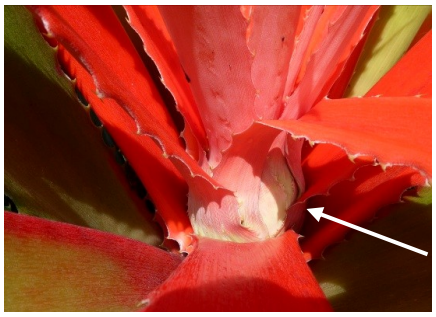
Bromelia are named after Olaf Bromelius (1639-1705), a Swedish medical doctor and botanist. The plants are native to Argentina, Brazil and Paraguay and grow at elevations of 45mtrs - 914mtrs. This is handy for me as we (the man eater and I) live at 183mtrs. This might explain why, before flowering this Christmas (2013) and during its 2 + years of residence, it has grown a very large pup which has had another pup (tho' I'm not sure whose pups are whose anymore) and there's now a sixth monster in the making.

I have seen the "cute" looking pups described as small boa constrictors creeping across the garden bed..... Oh dear what have I done..... Olive help..*!!!*

The beast is now 2.6mtrs across x 1.2mtrs high, each heavily armed leaf measuring 1.5mtrs long and the inflorescence itself is 650mm high x 175mm diameter, very impressive indeed.

Bromelia balansae do have several uses it seems - after flowering small orange coloured fruits appear which can be made into a drink and are also used in folk medicine to make a cough syrup. Of course the primary use that springs to mind is that if ever I am under attack from aliens I shall just hide in amongst my *Bromelia* patch as no-one or thing could possibly get through.

More facts:
They are grown and used in South America as fences to keep cattle in and unwanted humans out. I even read that you should plant one underneath your bedroom window to deter unwanted thieves, but what about Romeo ??



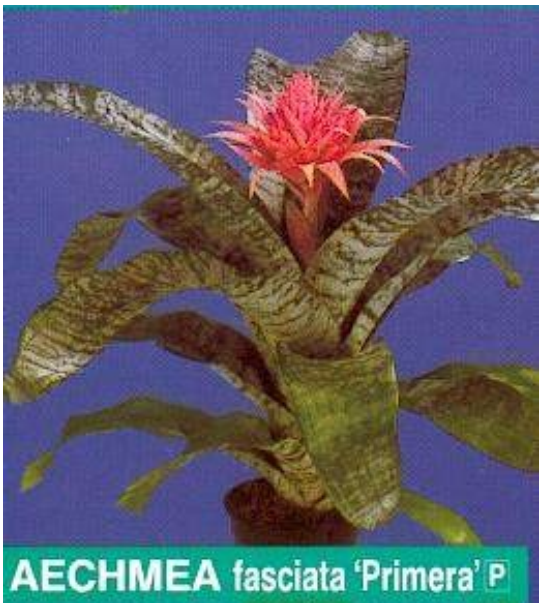
One morning as I was looking out of my bedroom window (checking for Romeo of course...) I saw instead a far better sight...! The entire heart of "mother" plant had started to glow becoming the most incredible fiery orange and then deeper and deeper red and then the centre leaves split apart to begin to reveal a monstrous great flower spike.

But wait there's more.... a strange felted white and pale purple flower head appeared and grew 66cm tall in a week. So.... if life is dull or your entertainment lacking, I can highly recommend at least two weeks constant amazement with your flowering *Bromelia balansae.*

Photos by Lesley Baylis: except the orange coloured fruits photo which was taken from the internet.

***Aechmea* 'Morgana'** by Derek Butcher, BSI Cultivar Registrar 2005

A few months ago I noticed in the New Zealand Bromeliad Journal that someone recommended that a plant called 'Morgana' that had no spines should be called 'Primera'. As is my wont, I wrote my thoughts about this in our local gazette pointing out that the Bromeliad Cultivar Register says that 'Morgana' is spineless and that there were 16 different cultivar names given to *Aechmea fasciata*. Next on the scene was Herb Plever in New York who politely said that Corn. Bak had always said this cultivar had spines! Peter Bak confirmed this fact and the Cultivar Register will be corrected. I knew that a spineless form of 'Morgana' was being sold in Florida and is in Michael Kiehl's catalogue as such. I discussed my problem with Dennis Cathcart. If you have a spineless *Aechmea fasciata* how do you identify it? In the Cultivar Register there are two names which specifically mention "spineless". These are 'Primera' which has a plant patent in Europe and 'DeLeon' which had a plant patent in 1992 in USA and I am not sure if it is current. As I have pointed out before, the validity of a plant patent is a matter for the plant seller not the Registrar! If you have a spineless *Aechmea fasciata* you are not likely to use either 'Primera' or 'DeLeon' especially if you are selling them! These two names are just examples of this form and are not exclusive. The Cultivar Register 1998 suggests that spineless forms of *Aechmea fasciata* were in existence and circulating in Florida in the 1980's well before 'DeLeon' was patented. It is possible this is the reason for the alleged spineless 'Morgana'. This should be sold as *Aechmea fasciata* 'Spineless' or, dare I suggest 'Smoothie' which I will add to the Cultivar register if any want to use it and forgive me my warped sense of humour! This name should be used only when the plant cannot be traced to either 'Primera' or 'DeLeon'.



My discussions with Dennis Cathcart revealed that Chester Skotak had written notes on this spineless phenomenon and the following notes from Chester makes fascinating reading.

Many years ago there existed an *Aechmea fasciata*, possibly from Japan that was spineless .This was a common *Aechmea* 20 years ago and many people had this in their collections and perhaps still do. Since this is a fairly good looking *Ae. fasciata* perhaps it also popped out of a meristem program in Japan as a chimera. This *Ae. fasciata*, when crossed with any other *Ae. fasciata* produced spineless seedlings. This F1 cross is easy to duplicate in a hobby greenhouse and has been by several growers. I believe that all *Ae. fasciata* that are spineless originated from what was known as “the Japanese clone”, although with bromeliads nothing can be ruled out. Chimeras do appear but the rate of mutation from spiny leaf to smooth leaf must be very rare. It would be easy to understand how a spineless mutation would go unnoticed to the untrained eye.

Today there are many hybrids of aechmeas that are spineless .They present an interesting challenge for the very reason Dutrie hinted at in 1946, that *Aechmea fasciata* and *Aechmea chantinii* produce an intermediate cross between the two parents, with the colour of *chantinii* and other characteristics well divided. I can say after making many hundreds of crosses that I have found *Ae. fasciata* to be dominate in the hybrid in both shape of the inflorescence, the colour and the size. It is in fact very dominate in colour when used in crosses. This can be seen when hybrids of others from the *Platyaechmea* group crossed with *Ae. fasciata* usually bloom with some shade of reddish-pink to pink bracts.

Taking the spines off the *Ae. fasciata* was the easy part, the hard work lay ahead, of producing spineless *Ae. fasciata* in different colors and forms and then making the hybrid between the spineless *Ae. fasciata* and the *Aechmea chantinii -tessmannii* group, not only that, but plants that are culturally perfect, that grow fast, clean, and do not suffer transpiration burn on the leaves. These are the same basic hybrids that Dutrie made a half century earlier but the accessibility of obtaining more types of *Aechmea*, as well as growing conditions, and general knowledge about bromeliads has changed a lot in the last fifty years .

Ae. flavo-rosea, Ae. dealbata, Ae. caesia, and color forms of *Ae. fasciata* such as the “ Ivory“ or the plant known as ”Lavender“ were a few of the plants used to change the colors of the *Ae. fasciata*. In the *Platyaechmea* group I use *Ae. chantinii* with a stout yellow inflorescence that produces excellent hybrids. Currently we are using yellows and reds and oranges and two albino types of *Ae. tessmanii* and *Ae. cucullata*. The more hybridizing that I did the more it became apparent that *Ae. fasciata* worked best in hybrids when plants were used without trichomes or at best very few trichcomes. Commercially the trichomes are more appealing, but it is a true challenge to produce a bright inflorescence and have the leaves with a silver cast to them . I had ruled out any commercial types of *Ae. fasciata* with just too many trichomes and they were not bright enough or

fast enough growing. Fewer trichomes give more colour. That is the current status of my program with *Aechmea*. I will follow this article up in ten years time and see where this was all leading. Hopefully I will reach a point of having a spineless *Aechmea* hybrid, a nice silver colour on the leaves, and a large well centred, bright inflorescence, all that I ever hoped for in a hybrid, but will I ever be satisfied?

If *Aechmea* have the ability to discard their spines, are they coming or going in the evolutionary chain?

Where do the spines go? Here is where I walk out on a limb. All *Aechmea* that have had the spines hybridized out have an unusual fold somewhere running along the length of the leaf. Is there one or two genes that have been eliminated, or are they simply masked and have been there all the time just relocated somewhere else? Any observant grower or hobbyist of the Bromeliaceae can see this phenomenon by simply holding the leaf up to the light. Sometimes it is a very prominent fold other times it is a faint line. At times the inflorescence of a spineless *Aechmea* will show spines on the primary or secondary bracts, sometimes very prominent and sometimes hardly at all. This also occurs with pineapples, *Ananas comosus*, where the crown is spiny. These spiny crowns are discarded and considered only as primitive relics of their ancestors. If a spineless pineapple produces a spiny top, are the genes still there for spines? This fold in the leaf is easily observed on several varieties of spineless *Ananas comosus*.

Perhaps this unusual doubling in the leaf will one day be looked at closer and we can move one step further along in the study of knowledge about our favourite plants, the bromeliads.

One final comment:
Herb Plever points out that his spined 'Morgana' also produces 'pipes' in some plants and this can follow into the offsets. It is possible that 'piping' may well take over from 'quilling' as a favourite Bromeliad discussion topic!

Neoregelia compacta* or *schubertii

Both plants have been dissected having all attributes compared to each other, photographed and forwarded on for discussion with the following responses: Insignificant amount of difference (RL). *Neo. schubertii* looked like a compacta, albeit a smaller form (PT). Thanks for crossing the 't' and dotting the 'i'. I think it is safe to say that *Neo. schubertii* is really *Neo. compacta* (UD).

The Taxon List noted (EG) that *Neo. schubertii* = *Neo. compacta.*

Tidy-up Corner (corrections) by Eagle Eyed Observers

Derek Butchers response to the article '**About Type Specimens'** published in the FNCBSG NSW January 2014 Newsletter, page 4.

Another great job but aren't you getting a teeny bit technical with these **types**! You had me checking my glossary because, as you know, Botanists love changing definitions or even use expressions not formally accepted by the ICBN, Yes I prefer the old title because they love changing this too. Now to my suggestion in elaborating on Cultivar **type** because, certainly in Bromeliaceae, cultivars are selected on colour and they have little of this in a herbarium specimen!!!!

This is what I have in my glossary:
Cultivar type: the so-called "type" specimen of a horticultural cultivar. Some such specimens have been called clonotypes by researchers, but which is not to be confused with its other use to cover offsets of holotypes. Because so many cultivars are chosen on colour we, in Bromeliaceae prefer to use coloured photographs called 'Standard' held on the BCR.

Standard: According to the ICNCP this is; a specimen, seed sample or illustration kept and maintained to demonstrate the diagnostic characteristics of a cultivar.

A point of view from two: Eagle Eyed Observers, UD and RL

- December 2013 Newsletter: **Recognising what a name Means**

Is the pointy end of a label to the left or right ?! Does it really matter?
Yes it does matter with a name, correct labelling is essential when wishing to research a plant on either the BCR or FCBS web sites.

Luckily we do not often have a duplicate name for both species and cultivar. What is more likely to happen is different hybrids with the same name!

Who has a plant with *Neoregelia* 'Royal Robe' on the label ?
Is it 'Hummel's Royal Robe', Goode's Royal Robe' or 'Skotak's Royal Robe' ?
Writing labels is not as easy as it sounds.

When using the BCR enter royal robe into the search box, this will show all titles using that name. It is now up to the user to open each appropriate listing and decide which most closely resembles the plant in question. The same applies for many others eg: *Neoregelia* 'Enchantment' could be 'Elmore's Enchantment' or 'Larnach's Enchantment'.
Without knowing the easy find on the BCR people find it difficult to check plant identifications, especially if only half the correct name is written on the label.

Novice Popular Vote

1st	Coral & Gary McAteer	*Neoregelia* 'Zoe'
2nd	Flo Danswan	*Neoregelia* 'Shelldance'
3rd	Lesley Baylis	*Tillandsia leiboldiana*

Open Popular Vote

1st	Marie Essery	*Aechmea pectinata*
1st	Shane Weston	*Neoregelia* 'Sonic Canvey Stripes'
2nd	Kay Daniels	*Guzmania* hybrid

Judges Choice

1st	Lesley Baylis	*Tillandsia leiboldiana*

Decorative

1st	Carol Lewis-Hughes	Cryptanthus in a Bowl

Competitor's Comments.

Marie, has grown her *Aechmea pectinata* in a position in the shade house where it receives sunlight most of the day. The shade house is covered with 70% beige cloth, the plants are watered twice a week and fertilized with Osmocote Exact.

Shane's neoregelia is a large growing plant to 1m and is a vegetative sport of *Neo*. 'Sonic Boom', Shane grows his bromeliads under 70% biscuit shade cloth.

Kay, grows her bromeliads under 50% black shade cloth in a light and airy shade house watering several times a week in these drier times, and fertilizes with Osmocote Exact.

The McAteers, grow their bromeliads in their orchid houses receiving the same care and attention as the orchids. Gary originally purchased his *Neo.* 'Zoe' from Pinegrove some years ago, it has now been grown to a lovely hanging display.

Flo, was given her *Neo. '*Shelldance' some time ago, it has grown into a very colourful plant exhibiting all the features of its breeding.

Lesley's *Tillandsia leiboldiana* is pot grown under 70% beige shade cloth, being regularly watered and fertilised. Using her own special mix, this beautiful tillandsia has rewarded Lesley with its twin flower spikes which are in full bloom.

Carol's terrarium was very thoughtfully put together using some Cryptanthus and mosses after having been inspired by others recycling their previously unloved fish bowls. Hopefully we will see more of these inspirations in the future.