

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

Study Group meets the third Thursday of each month
Next meeting 17th April, 2014 at 11 a.m.

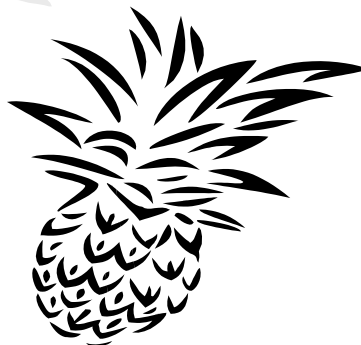
Venue: PineGrove Bromeliad Nursery
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Discussion: March 2014
General Discussion

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Meeting 20th February 2014

The meeting was opened at approximately 11.15am.
The 21 members and one visitor present were welcomed.
A total of 11 apologies were received.

General Business

The meeting was opened with a discussion regarding the bi-annual Bromeliad Conference, 16 - 19th April 2015 in Sydney. Preliminary registration forms and other information are available from the Australian Bromeliad Society web site. Now is the time to get in and register if you wish to get early bird discounts. Discussion on accommodation costs etc. were entered into with advice to share if possible, it is considered staying at the venue is the best. The optional tour is recommended and should be booked and paid for when registering e.g: Coach, Botanic Gardens, Harbour Cruise and Lunch at \$70/person is not to be missed.

A new book, *Tillandsia & Friends Bromeliads Handbook* by Fumio Fujikawa was presented to the Group to be entered into the library, written in Japanese, however it does have lots of photos, most have English captions. Virtually all the photographed plants are readily available locally. There are some good easy to follow 'photo stories' in the back section of the book e.g: taking pups off, making wire mounts / hangers etc. A highly recommended book.

The Editors have been getting some good feedback on our Newsletter, so keep those articles coming as it is good to have original articles, especially of your own growing experiences. Congratulations to those who have supplied articles and photos, lets keep up the good work.

There has been lots of heat stress on plants with high temperatures and little rain of late. Keep moisture up, mist regularly and use shade cloth where needed as temporary shade shelters in the garden. Mel from Cowra lost a few plants as did many of us this summer, however she is optimistic and using it as a learning curve. (article p.7)

Show and Tell

Ross showed (brag!) his *Guzmania* 'Tricolor' which is a variegated form of *Guzmania sanguinea*. Relatively easy to grow in a well lit but shady position, this plant is a stunner when at its colour peak. (photo p.8)

Ross also showed a *Tillandsia multicaulis* with five spikes, this is an unusual plant as the spikes come from individual leaf axils allowing the plant to continually grow from its central point.

Another plant with similar growth habit to look out for is *Tillandsia complanata*.

Ross showed his “everriculum” which looked very much like a hank of *Tillandsia usneoides*, but showed no sign of growth for the past eight years. Helen decided it was time to get it out and freshen it up then place it in a better position only to discover it was really just a piece of old fishing net. It had fooled a lot of people for many years even when asked to identify it.

Ross exhibited to the Group an interesting and new to the Group, bromeliad, *Navia arida* in flower which he recently acquired from Doug Binns. Fortunately Doug was at hand to offer additional information about the growing conditions of these unusual and not often seen plants in our collection. Doug’s discussion has been compiled into notes and presented on page 6.

Wendy mentioned she thought she had a fungal problem with her plants but wasn’t sure how to remedy it and was hoping the Group could help solve her problem. The fungi first appeared after planting her bromeliads into some mulch she received from the Recycle Centre. When the fungi first appeared Wendy treated them with a foliar spray, it was a hot day and the temperature went up to 34°C and she lost many plants. Wendy felt the problem was the heat, it was then discovered that she had used a copper based fungicide. There were *gasps of horror !!* at the mention of this as copper is extremely toxic to bromeliads. Wendy now realises this is most likely the cause of her plant losses and not the fungi as most are harmless to bromeliads and can easily be washed off.

Lesley expressed a few words of caution about using unfamiliar chemicals suggesting the need to read the label and ask about the active constituents before use. It is safer to ask another Group member for advice if in doubt, or leave the fungi rather than use unknown possibly harmful sprays. Usage advice on labels covers ornamentals in general not specifically a copper warning for bromeliads.

It seems everybody has a differing opinion as to the quality of various mulches, most are OK except some people believe tea tree mulch mats / compacts too much which causes it to shed water, which means it doesn’t allow water to pass through it easily. Les believes the best mulch is lucerne (hay) because it has a growth chemical in it known as - tricantonal. The growth stimulant Formula 20 contains this chemical. Ross uses tree mulch sometimes referred to as forest floor mulch, this is a very good mulch when left to season and allow the tannins to leach out of it, however it has been planted into directly after chipping with little ill effect. Possibly the only ‘ill effect’ from non seasoned mulch is that fungi are an essential part of the breaking down process, during this process some pretty strange, or rather peculiar looking fungi appear. One such fungi which causes much amusement is *Phallus impudicus* the Stinkhorn fungus.

We occasionally see slime mould when using mulches, there again these are relatively harmless and can be washed off the plants with a good jet of water from the garden hose with no chemical treatment required.

Lesley brought along a number of different *Catopsis* she has growing in her shade house under 70% beige cloth, one being the unusually shaped *Catopsis subulata* which was in flower. *Catopsis subulata* is found growing in pine-oak forests in southern Mexico, Honduras and Guatemala, 500-2000m. Also shown were *Catopsis nutans*, *Cat. minimiflora*, *Cat. sessiliflora* with its bright orange flowers and *Cat. nitida*. Lesley's well grown *Catopsis compacta* showing its light yellow bracts and tiny white flowers was compared to two plants Ross had been growing in full all day sun.

First for comparison was a plant grown on a cork mount, a considerably smaller plant in flower compared to the pot grown specimen of Lesley's.

The second plant shown was potted, grown under full sun conditions which may have contributed to its much brighter orange bracts compared to its counterpart grown under 70% mesh. It was very interesting to see the difference between same plants grown under such different conditions, although all were attractive plants. Also noted was the extra light didn't vary the amount of waxy coating. Also discussed were some *Catopsis* acquired from various sources over the years with different names but of similar appearance, these being *Catopsis hahnii* and *Cat. morreniana*. As they all appeared to be the same, it has been agreed that they are most likely all *Catopsis morreniana*.

As Lesley has presented some nice plants at our meetings over recent months she was asked what is in her potting mix and what does she feed her plants.

Answer: "I make up my own mix, it has a lot of food in it, it is quite a rich mix using some of PineGrove's bromeliad mix, a bit of cow manure, ash from the fire box, composted macadamia nut husk, Dynamic Lifter, a small amount of Zeolite and some 'quality' potting mix. After potting I add slow release fertilizer, I then stand each pot in some diluted 'Powerfeed' and also pour some over the foliage from a watering can. This I feel gives them a good kick start after being repotted. I use a rich mix to begin with due to the often high rainfall where I live which can flush the nutrients through my mix in no time".

I think the results of Lesley's plants speak for themselves - well grown plants.

We would like to see members bring along to any meeting, their own potting mix blend, bring along the individual ingredients to show just what is going into your mix and at what percentages. As being a part of this Group is about learning and helping others, this is a good way to show others what you have learnt that works well for you. Remember what works for one may not necessarily work for others in their given environment, so always be prepared to adjust a potting mix to suit where you grow as conditions may vary from one season / year to the next which can affect your watering requirements.

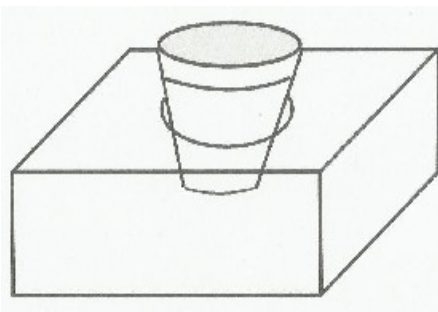
John Crawford showed an unusual plant developed by a North Queensland grower, it is known as *Ananas* 'Paradise Pompom' (unreg). It appears that the fruit develops a mass of pups all over it giving a 'Pompom' effect. (photo p.9) John also showed a nicely grown *Tillandsia* 'Bob's Amigo' which was bred by Bob Hudson in Cairns. (photo p.9)

John discussed purchasing diatomaceous earth in bulk if anybody was interested. He is going to add it to his potting mix to kill root mealybug. Les commented that he has had no ants or mealybugs in his pots since using it.

John also discussed the benefits of seaweed concentrates such as Seasol, Powerfeed, Maxicrop etc. It hardens the leaves, it stops loss of moisture via transpiration through the leaves and so helps prevent sun damage. John sprayed his plants before the 40°C heat we had and feels he had less plant loss than other growers around him. John dips all pups in a seaweed mix when he is repotting to give them a kick start as it is full of minerals. He is also going to test it on his cold sensitive plants this coming winter to see if it has any effect. John cautioned, when buying products to compare the active constituents from one brand to another as one may appear cheaper but may have a much lower active parts per gram, therefore one needs to add more ingredient to the water.

Laurie was concerned about the number of his *Alcantareas* he has lost lately, they are just falling over and dying. It was suggested to check for root mealybug and also that they are not too wet about the roots which may cause them to rot. Air flow, a well lit position and a quality potting mix which allows good drainage are essential for good healthy plants.

When transporting precious plants to meetings use purpose designed carry trays which are easy to make, are very handy when you want to transport an awkward size plant to a meeting or a show without causing any damage. Simply turn a



polystyrene box upside down and cut a hole slightly larger than the diameter of the base of the pot but smaller than the diameter of the top. Insert the pot into the hole so that it goes in about half of its depth and you will find the polystyrene will grip the sides of the pot and hold it firmly in place with the leaves clear of any other obstacles which could cause damage.

Polystyrene recycle tip by Neville Wood in our July 2013 Newsletter, page 14.

Navia and the Guiana Shield

notes compiled by Editors

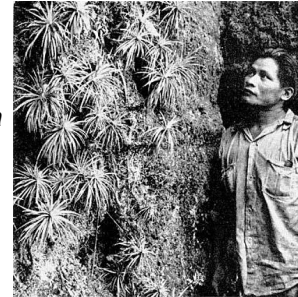
Doug Binns had grown the *Navia* from seed he obtained several years ago from the BSI seed bank. *Navia arida* grows in the Guiana Shield area of Southern Venezuela and adjacent Guyana. This area is on the Venezuelan – Brazilian border just north of the equator. High rainfall and temperatures, cooling at elevation and in the dry season, very heavy fogs which can last all day or at least till midday.



The Guiana Shield is a heavily forested mountainous area relatively inaccessible with the Tepuis, a massive flat topped square, boxlike monolith of red and pink sandstone rising out of the rainforest. The Tepui consists of vertical faces deeply creviced and canyoned, to plateau areas where water lies and the carnivorous bromeliads, the *Brocchinia* like to grow. The plateau areas can be at different altitudes with more vertical faces and a summit plateau.



The *Navia* grow in small groups at the base of the cliffs in shaded moist situations and out in the more exposed rock platforms and ledges where the sunlight brings out the stunning colours in many in this Genus. Many *Navia* species grow in close proximity to others, with about 100 identified species of *Navia*, few are available to the interested public and many of the species identified, appear to have not been rediscovered by botanists since the 1950 & 60's.



The challenges of growing them in our Sub tropical climate are many, Doug has set up a hothouse to control the environment and maintain a certain degree of warmth in our colder winters. *Navias*, at least *Nav. arida* and *Nav. splendens*, do



Navia arida grown by Doug Binns
photo by Lesley Baylis

not like the cold and they do not like drying out, so warmth and moisture are very important, along with good light and an open potting mix using coarse sand and pine bark. Doug has found that these two species of *Navia* do not produce many offsets under his conditions and seed is the best way to build up plant numbers.

Photos for this article taken from the internet and a Bromeliad Society International Journal.

A Harsh Summer in Cowra Central Western NSW by Mel Barlow

After splashing out on a shade house to get the bromeliads through winter, I thought I had this plant growing thing under control..... I couldn't have been more wrong. As soon as the frosts were gone I moved the bromeliads into the garden, and they loved it. They were blooming, pupping and colouring up nicely. Then the heat of summer hit, our days of clear blue skies and 40°C temps were here. Keeping the water up to the bromeliads was easy, probably easier than the other plants in the garden and yard, they required such a small amount of water compared to everything else, but the sunburn was a different story. It seemed that every time I went outside I found yet another bromeliad with burn.



A garden of brown spots and crispy leaves.



Summer this year has been a lot harsher than the "normal", a lot hotter and a lot drier. I have found that some of my bromeliads that took nearly full sun last year have bleached and burned in the exact same position this year. I am also finding that plants that are generally thought to tolerate "full sun" or close to it, just can't seem to handle that here in my garden.

I read online forum discussions about what growers do to get their bromeliads through summer, and it can get rather confusing because of the many different growing techniques and environments... Misting several times a day, emptying water from the cups in the heat of the day, to fertilise or not to fertilise.... I am learning that I can't stick to one single growing rule, and that only time,



patience and learning from my own personal experiences will get my particular plants through each season. I know that this summer's damage will grow out, and I am lucky that I haven't had many losses due to the heat, I also know that next summer could be a different growing experience again.



Now, bring on winter, I still have more to learn.



Tillandsia 'Creation'
1st Open - John Crawford



Guzmania 'Milk Ice' - Lesley Baylis
1st Novice and Judges Choice



Floral Arrangement - Trish Kelly
1st Decorative



Lesley showing a 'small' pup she cut off the 'beast' - *Bromelia balansae*



Guzmania 'Tricolor'
grown by Ross Little



Navia arida
shown by Ross Little



Tillandsia 'Bob's Amigo'
grown by John Crawford



Ananas 'Paradise Pompom' (unreg)
grown by John Crawford



Catopsis subulata
grown by Lesley Baylis

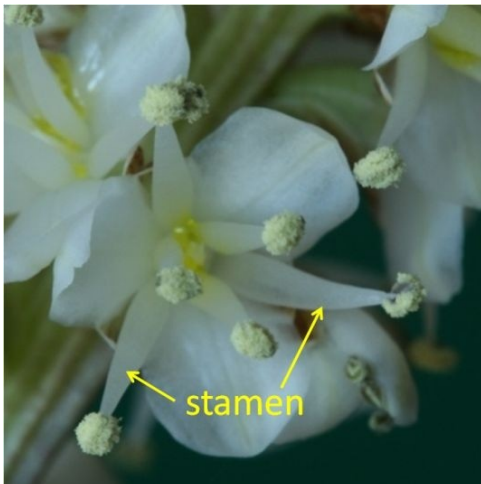


Catopsis morreniana on coconut husk ball

Photo's supplied by: Ross Little, John Crawford and Lesley Baylis

The Genus *Hechtia* and Dioecy in Bromeliads by Doug Binns 2014

The vast majority of plant species, including most bromeliads, bear their male and female sex organs together in each flower. Some species (roughly 5% of all flowering plants) bear male and female organs in separate flowers, with separate plants bearing either all male flowers or all female flowers. The botanical term for this situation is dioecy and such species are called dioecious. Among bromeliads, dioecy is virtually synonymous with the genus *Hechtia*. All but one of the approximately 60 species of *Hechtia* are dioecious and that one exception (*Hec. gayorum*) is almost dioecious (in the sense that there are a few bisexual flowers on plants that are otherwise unisexual). By contrast, only a handful of other bromeliad species are dioecious, notably *Androlepis skinneri*, *Aechmea mariae-reginae* and a few species of *Catopsis*. There are also two species of *Dyckia* which are almost dioecious, in a similar manner to *Hec. gayorum*.



Male flower



Female flower

In *Hechtia*, male and female plants are easy to tell apart while flowering or fruiting, and very difficult or impossible when not in flower or fruit. Male flowers have six stamens (the organs which bear the pollen, as marked in the photo). Female flowers have a single pistil (the organ which includes the ovary) which is split into three branches at the top (these are the stigma lobes) and no stamens, although there are usually inconspicuous filaments which are the rudiments of what would have been stamens in a bisexual flower. Of course, only the female plants produce fruits. One interesting aspect of dioecy in *Hechtia* is that male and female plants of one species often look different (apart from just the difference in sex organs) and may have flowers or vegetative parts of different shape, so that even though it is easy to tell the sexes apart, it may not be so easy to know whether two plants of different sex belong to the same species.

This is especially the case with cultivated plants, because there is no natural association of plants growing together to provide clues. Hechtias in general have had a reputation for being difficult to identify and this is at least partly because of the different sexes. Many of the species described in 'Flora Neotropica' by Smith and Downs in 1974 were, at the time, known only from one sex, or for others there was no indication whether the description applied to male or female plants or both. *Hechtia* species may be especially difficult to identify if you don't have descriptions of both male and female plants, or if you have a male plant, for example, but only female plants have been described. The difference between sexes has sometimes led to male and female plants of some species being described as separate species. The best example is *Hechtia scariosa*, described from a male plant, which is now considered to be the same as *Hec. texensis*, described from a female plant. In botanical descriptions, you will usually see male plants called 'staminate' plants (from 'stamen') and female plants called 'pistillate' plants (from 'pistil').

Hechtia is almost exclusively Mexican, with only about four of five of the sixty or so species occurring elsewhere (one in southern U.S.A and a few in Guatemala and Nicaragua). It appears that until recently, *Hechtia* species have been poorly collected for herbaria and have been a bit neglected by botanists, perhaps partly because many are large and spiny and awkward to press on herbarium sheets. However, as mentioned above, *Hechtia* species have had a general reputation for being difficult to identify, not only because of the difference between sexes, but also because many species, especially those described many years ago, were not well described or were described from incomplete or very few specimens. Over half the species in Smith and Downs 'Flora Neotropica' in 1974 were at the time known only from the original 'type' collection, so there was no information on the extent of variation of the species in natural populations. This situation has changed over the last decade as several botanists in Mexico now seem to have a strong interest in the genus and are clarifying older species descriptions and describing new ones. About one third of all the currently accepted species have been described since 2007 and it seems likely that there are quite a few more new species yet to be described.



Hechtia rosea flower

I think hechtias are very interesting and attractive plants. Some have striking patterns of red blotches on silvery leaves, or tufts of silvery hairs at the base of their spines. Others have leaves uniformly of interesting reddish shades. Flowers are always small (usually less than 5 mm long but some up to 10 mm) and often dull in colour, but they compensate for their lack of size by their abundance. Many hundreds of flowers may occur in inflorescences up to 2 m tall.

Some species (e.g. *Hec. tillandsioides*, *Hec. rosea*) have mauve, lilac or pinkish flowers. Species with dull-coloured flowers are often strongly scented with a pleasant honey-like scent. Flowering plants of either sex attract an enormous variety of insect visitors, apparently seeking nectar. I'm not sure how many of these visitors effect pollination, but the very few times I've had male and female plants of one species flowering simultaneously, virtually all female flowers produce seed, so at least some of the insect visitors must be effective pollinators.

I've grown hechtias for many years, but only a small number of species. These were mostly from seed from overseas suppliers. I find them generally easy to grow and most species are probably tolerant of a wide range of conditions, although they sometimes suffer from leaf tissue rot or collapse. This is disfiguring but rarely fatal. I initially had all of mine in pots, but some do not flower until fairly large or until they have quite a few years of growth, and repotting the spiny species usually results in significant injury to the repotter, so I've been progressively putting them all in the ground. Weeding among the rosettes also causes injury, but in the long term I think there are slightly fewer total injuries than from repotting. The silver-leaved and grey-leaved species like full sun and seem tolerant of frost (unaffected at least down to about -3° at plant level, but can tolerate lower temperatures). However, under my conditions, species such as *Hec. rosea*, with dull reddish leaves, like more shade and are frost-sensitive.

Some of the species I grow were bought with just locality names and no species names. So far, I've had relatively few of these species flower and even when they do, I generally haven't been able to identify them. This is probably because I haven't seen many species and don't know the range of natural variability, so I am not confident to give them a name when they don't closely match any of the species descriptions. The pictured plants showing male and female flowers, from seeds bought as *Hectia* species San Mateo Peñasco, are a good example of the difficulty. They appear similar to *Hec. edulis*, but don't quite fully match the description. Also, according to its protologue, *Hec. edulis* is recorded only from the Mexican state of Chihuahua and the only San Mateo Peñasco that I can find on maps is about a thousand km away in the state of Oaxaca, so it seems unlikely that this is the correct species, unless locality information is incorrect for my plants, or I have mixed up the seeds at some time. So for now, the identity of this plant remains a mystery to me.

Although it is probably a bit of a stretch to call their flowers spectacular, hechtias are interesting plants which are well worth growing, especially if planted out in the garden.

Joining a Bromeliad Study Group

by Wendy Buddle - 2014

At the invitation of my friends Trish and Kay, I began accompanying them to the meetings of the FNCBSG about 4 years ago. I knew what bromeliads looked like and was delighted to be able to join this group in the hope of making use of these plants around my garden to save myself lots of boring weeding. I went home after the first meeting totally in lovewith bromeliads. At that point in time all I wanted to do was gradually acquire a selection of different looking bromeliads for landscaping and planting, for colour and variety, and for keeping kangaroos off the gardens. I use big, nasty spikey ones for that – Kay calls them ‘Mongrels’ – and they do bite if you get too near to them. The names and varieties were of absolutely no interest to me at all. Why on earth would I want to have names for them?

It was at one of the early meetings that Ross demonstrated removing a pup from an older bromeliad, potting up the pup and re-potting the mother plant, so I went home and practised on some of the *Neoregelia compacta* that were growing around our garden, using the new pots and potting mix I had purchased from Ross. I also placed branched *Neo. compacta* clumps in the forks of trees, into the slots up the sides of a few palm trees, and in spots about the garden where there was a space that needed filling. The lesson must have been very good as my efforts turned out quite well. I sprinkled some of the special fertiliser around the base of the newly potted bromeliads and stood back to congratulate myself. Four years on and we have *Neo. compacta* successfully attached to all sorts of things and doubling their number at an ever increasing rate.

Is the bromeliad *Neoregelia compacta* related to rabbits?

After a few more meetings, I found that there were different names for different types of bromeliads, *Neoregelia*, *Tillandsia*, *Nidularium*, *Aechmea*, *Guzmania*, *Billbergia*, *Cryptanthus*, *Vriesea*, *Alcantarea* and hybrids with double concoction names that I just couldn't get my mind around, let alone my tongue. My husband Ian had joined the group by this time and was very taken with Tillandsias right from his first visit and as a result he now has quite a good collection of the various types and they are all doing extremely well. Helen has helped him by giving him the names and by suggesting different varieties. In fact, Ian has quite a good grasp of everything that has been passed on to us by members and through the monthly Newsletter because he has absorbed the knowledge and could tell a *Neoregelia* from an *Aechmea* very quickly. To get *my* grey matter to comprehend that the Bromeliad family embraced all these other different types was incredibly difficult and has taken all 4 years of membership, and I still get confused. At last I can tell the difference between the Billbergias, the Tillandsias, the Neoregelias, and the Guzmanias, but I still don't know the correct name for the Mongrels!

I am so relieved that I don't have to sit an examination at the end of each year!

Now, because I can tell the difference between SOME of them, and have had experience in placing them around my gardens, I admit to being passionately addicted to growing bromeliads and naming them carefully. This is essential when it comes to contributing plants to the monthly raffle prizes, because most members want to know the correct name of each plant won in the raffle. It is equally necessary to know the variety and name when exhibiting, and though I did not think I would ever be exhibiting mine as my plan was to plant them into the gardens around our 1 acre property. Ross encourages each member to exhibit as another way of learning what judges observe in a well grown bromeliad.

Through trial and error, I have learned just how much sun and shade are necessary for a large number of my collection, which ones can be grown on branches of trees, and those that look best in hanging pots. I find it so rewarding to detach the new pups, pot them up and name them according to their parent plant. However, due to my lack of interest in names 4 years ago, some of my earlier plants have to go under the names of "Neo", or "Guzmania, yellow", which is not very helpful to anyone, especially me now that I am so intrigued by this fabulous family of plants. Incidentally, I never take the pups from the Mongrels!

And the kangaroos don't go anywhere near them.

The FNCBSG members are all potty about collecting more and more of these absolutely remarkable and beautiful plants, and most are very helpful when a new chum is asking advice. Mostly the members are well behaved, but sometimes there is chatter in the back seats! The format of the meetings is good, with questions answered by those with the expert knowledge (a part of the group that works well without my input!), relevant information given about problems, including feeding, positioning, pests and taxonomy and interesting specimens of various species are brought in for show and tell. Specialist guest speakers come to the group meetings to offer more breadth and depth on their specialty areas which in turn increases member knowledge.

It's just as well that these comments are printed in the monthly newsletter which our Editorial Team and several other members make sure is published in time for the next meeting, because there is just so much to take in all at once!

Best of all is morning tea, which is a plethora of delicious, rich, country cooking. In fact at one point I was thinking I would exit the group as there was so much work to do in our own garden, but then I thought of the fabulous morning teas I would have to go without and quickly decided that was a lousy idea.

I have found that one of the best things about the group is the generosity that is evident when it comes to donating plants for the monthly plant raffles.

Raffles are an important part of our monthly meeting because the money raised helps with paying the bills, printing our monthly magazine, and purchasing new reference books for our growing library. Most members donate at least two plants for the raffle, but there are those who donate up to eight, others even more. It is a great feeling to be among those who are so generous with their time, advice, support and assistance for our group.

Thank you Ross for your continued enthusiasm, encouragement and for being the lynch-pin that makes this Study Group happen. Your knowledge of your subject is very extensive yet you have the humility to seek advice from other long-time growers when there is a question about important issues, like correct plant identification. Helen, too, is a rare jewel to whom we all owe a huge thank-you for all that happens in the background, and also to her wide knowledge of Tillandsias. Special thanks to those members who take the notes for the Monthly Newsletter, and to those who contribute articles, help with sales of pots, fertiliser, potting mix, etc; those who sell raffle tickets, and especially those who have been helpful to me, because being a blonde, I have needed every bit of help I can get!

The Far North Coast Bromeliad Study Group is a wonderful group of dedicated bromeliad growers who have become really good friends, and both Ian and I are thoroughly enjoying the stimulating companionship within this great group of people.

Wendy Buddle

Request

Request for more photos for the Newsletter as at present a very high percentage of the photos used in our Newsletter are taken by Ross.

This is YOUR Newsletter so lets see more of YOUR photos in it please.

Reminder

The days are starting to shorten, nights getting a little cooler, it is time for some shade house and garden maintenance. Dead leaf your plants to allow better air flow around them so they may dry more easily to prevent rotting. Remember our bromeliads don't particularly like cold wet feet. Place cold-sensitive plants in a sheltered position away from rain and cold wind. Take pups off that are large enough, pot them off and have them established well before it gets cold but leave taking small pups off until after Winter as established plants with strong roots will tolerate the cold better than unrooted pups. Ease up on foliar fertilizing as young soft green leaves may not like the cold.

Novice Popular Vote

1st	Lesley Baylis	<i>Guzmania</i> 'Milk Ice'
2nd	Ian Buddle	<i>Nidularium rutilans</i>
3rd	Les Higgins	<i>Cryptanthus</i> 'Jean Nichol'

Open Popular Vote

1st	John Crawford	<i>Tillandsia</i> 'Creation'
2nd	Trish Kelly	<i>Vriesea</i> 'Broadway'
2nd	Marie Essery	<i>Vriesea</i> unregistered Alan Phythian hybrid
2nd	Doug Binns	<i>Hectia rosea</i>

Judges Choice

1st	Lesley Baylis	<i>Guzmania</i> 'Milk Ice'
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Decorative

1st	Trish Kelly	Floral Arrangement
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Competitor's Comments:

Lesley's *Guzmania* 'Milk Ice' was bought from a Queensland show several years ago, she recently found it growing in her shade house very dry and hidden from sight, but looking beautiful! A drink of water and it was ready for the competition.

Ian won his *Nidularium rutilans* from the raffle several years ago, it grows under a palm tree in dappled light where it gets watered when needed.

Les grows his cryptanthus in mesh pots which he feels allows them to get a full pot of roots rather than them winding around the sides of the pot.

John now grows his *Tillandsia* 'Creation' in brighter light than previously as he found they grew but wouldn't flower, the change in light made a difference.

Since Trish received her *Vriesea* 'Broadway' from PineGrove it has doubled in size, it has very broad leaves with a squat growth habit. Trish waters her plants every other day, they also get fed with Osmocote and an occasional foliar feed.

Marie bought her plant from Alan Phythian 12 months ago as a bare rooted pup. It has been grown under 70% beige shade cloth into a very nice specimen plant.

Doug grew his *Hectia rosea* from seed, it is about 10 years old, it likes shade and protection, they tolerate drying out, but he waters 2 to 3 times per week.