

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

Study Group meets the third Thursday of each month

Next meeting 17th September 2015 at 11 a.m.

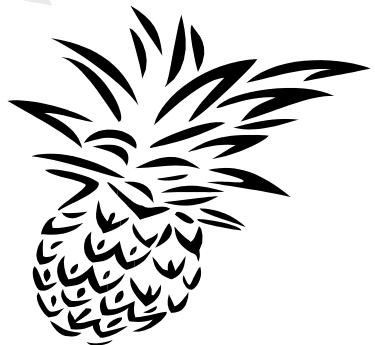
Venue: PineGrove Bromeliad Nursery
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Discussion: August 2015
General Discussion

Editorial Team:

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Meeting 16th July 2015

The meeting was opened at approximately 11.00 am
The 13 members were welcomed.
A total of seven apologies were received.

General Business

Helen passed around the financial report for the past 12 months.

A thank you was offered for a donation of plants to our raffle from Kerry McNicol and Joy Clark of Windsor (Western Sydney) which assists in raising funds for our Group. Kerry and Joy are two of our e-mail recipients who offer support to our Group each year with their kind donations.

This month's auction raised \$41.00, thanks Trish and Les for your donations. Les suggested perhaps having a reserve on auction plants. Gloria commented on how successful the auction had been last month. Next month Trish, Kay and Jeanette have offered to bring in plants for auction again. These do not have to be bromeliads but can be any gardening related product.

Helen asked if next month members could bring along suggestions for uses of recyclable materials and also bring in examples of how they have used them. Many entries in the decorative section have used recycled materials e.g. an old fridge shelf covered in shade cloth as a backing for bromeliads (photo p.9). Helen has a polystyrene box lid covered in hessian used as a wall hanging with bromeliads growing very well on it.

Show, Tell and Ask ?

Jeanette showed a *Tillandsia neglecta* which has flowered for the first time. She won it in a raffle at the Gold Coast in 2009. It sits on a wire fence and gets morning sun.

Helen showed a *Tillandsia gardneri* which was attached to a tree branch which blew down in the wind. This clump had self sown many years ago in a pine tree beside our meeting area.

Les brought in *Cryptanthus colnagoi* which he obtained from Margaret Paterson. It has since had 3 pups. He also brought in *Cryptanthus bahianus* which is a similar plant so be careful with labels. Les emphasized not breaking off pups but let them naturally abscise and also recommended growing in slotted/mesh pots.

Ted asked about washing pots: diluted bleach was recommended. He also asked about scale and Gloria commented that Grace Goode's recipe (June newsletter p.4) worked like magic. Kevin agreed that he had also used it and it worked very well. Les always checks for mealy bug on any new plant he obtains. Les added Pritchards mealy bug is the worst, you will find it under the bottom leaves. Diatomaceous earth (1 heaped tablespoon/litre of mix) will lacerate any insect attacking the plants. It breaks down after 12-18 months and needs to be re-applied. Both Jeanette and Flo commented that they had got rid of ants by using this method. John sells \$5.00 containers of D.E., it was suggested he be contacted and asked to bring some to the next meeting. It was thought perhaps the group could do a bulk buy.

Les showed some net pots which he finds are good for *Cryptanthus* as they need air movement through the root zone. He showed two examples of *Crypt.* 'Lisa Vinzant' which were the same size when potted and the one in a slotted pot was obviously doing better than the one in an ordinary pot. Tillandsias also love these type of pots. Some pots are too deep so Les cuts them down to squat pot size and uses the rim from another pot to fit over the cut down pot. Pick your pot according to the plant you are growing. Les showed *Crypt.* 'Spearmint' that grew really well in a large hanging basket and had good air movement.

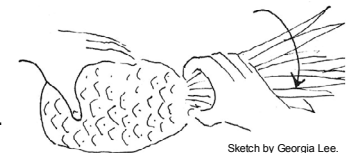
How to Grow a Pineapple

by Charles E. Dills

I've read many articles on how to get a pineapple plant started from the top of one purchased in the local supermarket. Most people eat the flesh and then either throw the rest of the plant away or take a sharp knife and slice off the top.

When I start out to sever the top from the fruit, I don't want to take any chance of slicing through the growing point of the topknot. Or my finger for that matter.

So I grasp the pineapple firmly with my left hand, pushing down against a table or counter. I grasp the top firmly with my right hand and twist. The top will come off perfectly with little or no flesh adhering.



Sketch by Georgia Lee.

I put the top aside for a week or two or sometimes place it in an empty pot with a drain hole and water the cup every week or so. When I get around to it, I place it on top of some well-drained bromeliad potting mix. I make a couple of "Croquet hoops" from some stiff wire and anchor the plant with them. Then I place it with the rest of my bromeliads. I haven't lost a pineapple yet. I'm still looking forward to a bloom and fruit. I expect our conditions will not produce grocery store fruit. It may be small, washed-out and stunted, but it will be all mine!

Reprinted from: BSI Journal 1981, V31 (5)

The Pineapple in Art and Decoration

by J. L. Collins

Pineapples were domesticated in prehistoric times in America and were being cultivated by the Indians in the American tropics long before Columbus embarked upon his world-changing voyage of discovery.

These native tribes used some of their principal food plants, such as corn and potatoes, as models for the manufacture of domestic and religious utensils. For some obscure reason the pineapple fruit did not appear to be used by them in this manner. Only one reference has been found of the pineapple being used in this way. This was recorded by Acosta in his "History of the Indians" published in 1590, where he describes an object found in Mexico where pineapple fruits appeared as a design on a shield, which he believed had been used in religious ceremonies by the Indians. However, pineapples played an important and interesting role in art and decoration through the centuries following the discovery of America.

There are two now famous paintings of pineapples which were produced in England to commemorate specific historical events in the early 17th and 18th centuries. One shows the Royal Gardener, Rose, presenting a pineapple fruit, with a long stem attached, to King Charles II in the courtyard of his country house. The other is a picture of a pineapple plant bearing a mature fruit which is believed to record the first pineapple to produce a ripe fruit in England.

During the late 17th and 18th centuries a number of books dealing with botany and biology of tropical America were illustrated with full page, artistic drawings designed to show typical or conspicuous biological features of the New World. Many of these included pictures of pineapple plants as a conspicuous part of the native flora of these regions.

A Dutch artist named Post came to Brazil during that short period when the Dutch government was in control of Brazil, having taken it temporarily from the Portuguese. During his stay of a number of years, he painted many landscape, seashore and village scenes typical of the country at that time. In many of these, pineapple plants were shown as a typical part of the native flora. Some of these paintings by Post are now preserved in art galleries in Europe.

During this early period in the history of America pineapple fruits were imported from the West Indies into England and the Continent and often used as table decorations at banquets and dinners given by the wealthy people of those countries.

Sometimes these fruits would grace the table of several people before finally being served as dessert.

In this way the pineapple fruit gradually came to be considered as a symbol of hospitality. In this role the fruit itself gave place to an image or likeness of the fruit wrought in metal (usually silver), clay or wood. Pineapples carved from wood were used over entrance doors, and over the fireplace mantels, perpetuating the symbolism of hospitality. These carved pineapples were also mounted at the tops of bed posts in the "heyday" of the large four-poster bed, and as an ornament on other pieces of furniture such as sideboards, chests of drawers, wood clock cases, etc.

Following its earlier use as a specific symbol of hospitality it was given a more general use as a decorative motif on various household utensils and equipment. Many of them appeared in the form of pottery cookie and jam jars, or as a handle on the top of sugar bowls and fruit dishes, which thus contributed both artistic and utility virtues.

The pineapple at various times through the years has been used as a design on painted home furniture and for fabrics used in making clothing and draperies. In the earlier part of this period the designs were often so completely stylized that the pineapple all but disappeared. In more modern times the pineapple continues to be used as a decorative design in fabrics

Reprinted from: BSI Journal 1981, V31 (1)

The Pineapple used on Stamps & Coins



Reprinted from:
BSI Journal 1981,
V31 (1)

To Breed OR Not to Breed

by Jamie Larnach 2015

This can be a touchy subject especially if one is talking to a purist ! So to set the record straight about us here at Bromeliads Australia Wholesale Nursery (Wyee N.S.W.) I will give our view of why we breed versus why we don't. I think one of the clearest messages we have noticed since breeding is that never, never let go of species. They are the cornerstone of all breeding programs worldwide in any plant family. The strength and depth of traits a SPECIES can bring to a hybrid should never be underestimated.



For example there is a toughness, shape and colour that can be used from say *Neoregelia concentrica* that is not only exceptional but unmistakable when used in breeding.



Another example are the traits obtained from *Guzmania squarrosa* being more leaves, broader leaves and a much larger flower head that transfers through its breeding into hybrids compared to many other *Guzmanias*.

So all that said, why breed if SPECIES are already the complete package ? One has to look at this from a self indulgent perspective (meaning self satisfaction or ego) OR the more common perspective which is a commercial basis. So what really drives a breeder to play with the laws of nature, be it either of the above perspectives ?



Many a hybrid has been made purely through opportunity of two plants in flower together at the same time without much thought of the outcome so this falls into the perspective of self satisfaction. I don't want to labour on about this type of breeding as it's not representative of our nursery. What I will say is that there is no right or wrong to breeding if you are learning, but DON'T register a hybrid for the sake of EGO if the plant is not an improvement on both parents !



◀ *Neoregelia* 'Larnach's Enchantment'

Moving on to commercialization, a business must make a profit to stay alive. So the challenge is to balance the passion of bromeliads with the profit of a nursery. This leads us onto breeding, what a collector likes is not necessarily what the masses like so there is our first case for breeding as it's usually the masses that pay the bills. In breeding for the masses we have kept our eye firmly on creating what will sell in different markets without creating uninteresting hybrids so WE don't lose our passion toward the plants. Other reasons to breed that we find necessary include breeding out undesirable traits such as spines that make a plant difficult or uncomfortable to handle, also traits that make plants hard to grow on mass. An example of user friendly bred by other hybridizers would be forms of *Aechmea fasciata*, one being *Aechmea* 'Smoothie' which is spineless.



Another plant that is user friendly is
◀ *Neoregelia* 'Deroose's Medusa' which is a spineless form of *Neo*. 'Meyendorffii', a cultivar of the species *Neo. carolinae*, both were bred with the florist and indoor plant hire market in mind.

Other undesirable traits for some hybridizers and growers is upper pupping as found with e.g. *Vriesea splendens*



and



◀ *Guzmania sanguinea* as this can make mass production from vegetative offsetting a slower and more costly process.

This is a very mild overview of why we breed, the other side of breeding is the criteria we use when breeding plants together but that is another article in itself. This is a prelude to a more in depth article dad (Bob Larnach) is putting together on parentage we use in our breeding programs as a follow up to this little introduction.

Cheers Jamie

Photos supplied by Ross Little and Derek Butcher



Vriesea 'Galaxy'
1st Open Jeanette Henwod



Neoregelia 'Burnsie's Spiral'
1st Novice Kevin Jones



Cryptanthus colnago
grown by Les Higgins



Mixed Bromeliad Rack
grown by Jill Ashe



Tillandsia Tree
1st Decorative Jeanette Henwod

Photo's by: Jeanette Henwood



Quesnelia 'Tim Plowman'
Judges Choice Flo Danswan



Christmas in July
grown by Helen Clewett



Tillandsia neglecta
grown by Jeanette Henwood



Cryptanthus Water Can
grown by Gloria Dunbar



Billbergia 'Canvey Black'
grown by Gloria Dunbar

Dyckia joanae-marcioi and the Serra Geral by Doug Binns 2015

There are several mountain ranges in Brazil with the name of 'Serra Geral', but the one of interest to me during a recent trip was the one in the north of the state of Minas Gerais. This range has long been known to cactus enthusiasts for its several endemic or near-endemic cactus species. For me, its main attraction was that it was also home to at least two apparently endemic bromeliad species (*Dyckia joanae-marcioi* and *Orthophytum eddie-estevesii*). At the time they were described, each was known from only its respective type locality. Although the locality descriptions in each case were vague and the localities may not have been in the Serra Geral, I thought this range was the most likely place for them to occur. In contrast to the cacti, which have been known since the 1970s, the bromeliads have been discovered and described only since 1999.

Any traveller along highway BR 122 between the towns of Monte Azul and Mato Verde can't miss the Serra Geral. It is a spectacular series of rocky peaks and domes east of the road and roughly parallel to it, extending north-south for over 30 km. For anyone who likes to see bromeliads growing in nature, it simply cries out for exploration. Unfortunately, most of it is not such an easy place to explore. Despite the maze of farm tracks around the base and in the valleys, there are very few roads or tracks into the hills themselves and walking away from roads is often difficult due to rocky terrain and very dense shrubby vegetation.

In the protologue for *Dyckia joanae-marcioi*, the only locality information provided is that it occurs near the town of Mato Verde, at an elevation of approximately 900 mtrs, in a 'slightly rocky' place. My guess was that the locality would be to the east of Mato Verde, in the Serra Geral. Mato Verde is a town which is not well set up for foreign tourism, but it does offer several basic (and very cheap!) hotels and was my obvious starting point if I hoped to find *Dyckia joanae-marcioi*. Apart from an excellent bus service along the highway, other options for transport are a bit limited, but I found that if I hung around the bus station a taxi would eventually turn up. With my embarrassingly pathetic Portuguese, I managed to convince a taxi driver that, yes, I really did want him to take me along the road into the hills and leave me at the roadside. My intention was to spend the day slowly making my way back to town, checking likely habitats as I went. I probably just reinforced any impressions he had that foreigners were a bit weird.



Soon after being dropped off, I was very excited to find some small silvery rosettes of a *Dyckia* scattered over a steep rocky hill at a substantially higher elevation than the 900 mtrs given in the description.

Was this *Dyckia joanae-marcioi* ?

The plants looked similar to what had been described and illustrated, except they were generally at or slightly below the low end of the size range described and each plant comprised only one or

very few rosettes. Unfortunately, none of the plants were in flower. A bit later, further down the road and closer to 900 mtrs elevation, I experienced the thrill of encountering a patch of larger, even more strikingly attractive, silvery rosettes in



relatively dense colonies. The plants were quite variable, particularly in the size and shape of the leaves, but overall this was a better match for the description of *Dyckia joanae-marcioi* with respect to vegetative characteristics. A few plants had developing inflorescences and I eventually found a single plant in flower. This then created some doubts, as the floral characteristics varied slightly from

the description. In particular the flowers did not have pedicels 3-5 mm long (they were almost sessile), the apices of the petals were not reflexed and the stamens and stigma did not exceed the petals. However, I also noticed some inconsistencies between the description and the accompanying image in the protologue of part of the inflorescence so was left wondering – how reliable was the description and how many inflorescences was it based on? I'd previously noticed that floral characteristics in natural *Dyckia* populations could be a bit variable so thought that relatively minor differences may not be significant if the original description was based on a very small sample, especially since I had only one inflorescence for comparison and no idea how typical or not it might be of the general population.



I can't know for certain whether the population of larger plants that I found is the same one from which the type specimen was collected, but at the time it was described it was known only from single population. The population is on the western slope of the range. Although the plants occur predominantly on or near rock outcrops, they are mostly very small outcrops in a low woodland so the



plants are often sheltered from full sun. The population occurs over a fairly large area and comprises many hundreds of plants. The area is grazed by cattle and some plants had been trampled, uprooted or chewed. I expect the plants have lived with grazing for many decades, but it is possible that grazing may cause a long term decline in the population. No seedlings were evident and it is likely that recruitment occurs only during occasional exceptionally favourable years.

Despite some discrepancies between the description and plant characteristics, I felt confident that the group of larger plants that I'd seen was *Dyckia joanae-marcioi*. If that is the case, where does this leave the smaller plants that I saw earlier, at a higher elevation? I also saw very similar small plants at another locality about 10 km north, where they were growing with what I think was *Orthophytum eddie-estevesii* (which unfortunately was not flowering).

Are the plants at both of these other localities also forms of *Dyckia joanae-marcioi* ?

As often seems to be the case when you see bromeliads, especially Dyckias, in natural populations, the variation is greater and more complex than brief botanical descriptions might suggest. I was left pondering. Were all three groups just part of a larger, more variable and much more extensive population of *Dyckia joanae-marcioi* than was known to



Braun and his colleagues when they described it, or is there more than one species of silver-leaved Dyckia in the Serra Geral? Perhaps another species has been described from this area and I have just overlooked the description. Otherwise, more thorough investigation of the area and a larger number of flowering plants are needed to answer this question. Regardless of what they are, all the plants are very attractive and well worth seeing.

There's a Frog in My Tank

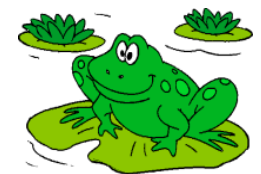
by Dee Bundy

Articles about Bromeliads and their amphibian inhabitants have been published occasionally and I would like to add some of my northern climate experiences to the available information on this topic.

A few years ago, on a day in June when I was watering my indoor light garden, I was startled by a frog. What turned out to be a leopard frog, *Rana clamitans*, suddenly leaped from one plant to another and finally settled on a leaf of a *Neoregelia carolinae* var. *tricolor*. The frog seemed very content living among my Bromeliads and when the weather warmed up, I opened the French doors and screen so that it could leave the house. The frog would reach the door sill but apparently it had no intentions of leaving. Since we seemed to have acquired a resident who could even elude my cats, it was named Freddy, the friendly frog. Freddy watched me all summer from his leafy *Neoregelia* diving board until cold weather came. Then one day Freddy disappeared, only to return in time for Thanks-giving. He showed his gratefulness by cooperating admirably by sitting still for my camera for 45 minutes. Freddy finally hibernated until early summer and again stayed with us through-out the warm months. He eventually disappeared permanently and I found that I missed his quiet company.

I was not alone for long. That year there was an unusually large crop of tree frogs, *Hyla crucifer*, or "peepers" as they are called here. These frogs can be heard usually in the early spring near ponds and woodlands, when the males call their mates as loudly as possible in a high-pitched key. I know spring is coming when I hear a giant hum from the many swamps near our house. They love to move into my Bromeliads outdoors during the summer. In the fall, I usually check the plants thoroughly when I clean them before bringing them inside ahead of the frost. That year in a single day I found a record number of 18 frogs among the plants brought in. Evidently I missed one, because all of a sudden I heard a loud peeping noise again in the same indoor garden! I finally found it sitting very happily on my Bromeliad tree! It was too cold to put it outside, so it spent the winter in the indoor garden. Nightly loud chirping in my otherwise silent indoor garden presents quite an exotic touch to a snowy New England winter!

Reprinted from: BSI Journal, Vol. XXXII, No. 3, May - June 1982.



Applying Epsom Salt – Basics

Reprinted from: plantcaretoday.com

Epsom salt has been used for decades by serious gardeners as a “secret weapon.”

It helps deliver tasty tomatoes, gorgeous roses, bumper crops of peppers, deep green leaves and more. There are many reasons to include Epsom salt (magnesium sulfate) in your garden.

Here are the basic methods and general rates for applying Epsom salt to plants and soil. NOTE: It is always advisable to have a soil test done before applying any nutrients to soil.

Soil Incorporation – Broadcast 1 cup per 100 square feet, mix well into before planting.

At Planting Time – When planting seedlings or new plants, dig a hole and place about 1 tablespoon of Epsom salt in the bottom of hole and cover with a thin layer of dirt, place the plant in the hole and finish planting.

Pre-Planting Soak – Prior to planting, soak root balls in 1/2 cup of Epsom salt diluted in one gallon of water.

Top Dressing – During the growing season, sprinkle about a 1 tablespoon directly around the base of the plant and water it in.

Applying in Liquid Form or Drenching – Drenching plants with Epsom salt improves the overall health of the plant by providing a good dose of magnesium. If your plants are needing a boost, dissolve about one to two tablespoons of Epsom salt in a gallon of water. Pour at the base of the plant and allow the water-salt solution to soak into the ground. Repeat throughout the season as necessary.

source: BestPlants.com

Epsom Salt: is now made from a rock substance called Dolomite, which is found abundantly in, and derives its name from, a mountainous district in the South Tyrolean Alps called 'The Dolomites'. When examined by the chemists, this Dolomite rock is found to belong to a very large group of substances known as 'salts', in which an alkaline base is combined with an acid radical to form a neutral substance the 'salt'. It consists of two metals, calcium and magnesium, combined with two non-metallic elements, carbon and oxygen, and takes the form of a neutral double salt known as carbonate of calcium and magnesium. Now, Epsom Salt is also a 'salt' but instead of being made of magnesium, oxygen and carbon, as is the case with the carbon salt, its constituents are magnesium, oxygen and sulphur. Chemically it is known as Magnesium Sulphate. Magnesium Sulphate is not found in a natural state, so it has to be made artificially from some suitable magnesium containing substance. The substance best suited for this purpose is Dolomite, mentioned above. In passing however, it may be stated that Magnesium Sulphate was formerly made from "Bitten", a derivative of seawater, which actually contains an appreciable amount of Magnesium Salts, combined with the Sodium Chloride which is its chief ingredient.

From: www. epsom salts explained

Novice Popular Vote

1st	Kevin Jones	<i>Neoregelia</i> 'Burnsie's Spiral'
2nd	Les Higgins	<i>Cryptanthus colnagoi</i>
3rd	-----	

Open Popular Vote

1st	Jeanette Henwood	<i>Vriesea</i> 'Galaxy'
2nd	Gloria Dunbar	<i>Billbergia</i> 'Canvey Black' unreg.
2nd	Flo Danswan	<i>Quesnelia</i> 'Tim Plowman'

Judges Choice

1st	Flo Danswan	<i>Quesnelia</i> 'Tim Plowman'
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Decorative

1st	Jeanette Henwood	Tillandsia Tree
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Comments from the Growers:

Kevin bought his *Neoregelia* from Pinegrove and has had it growing in a large hanging basket for 4 years. It is starting to colour up now as it is getting morning sun. He gives it no fertiliser or special attention.

Jeanette was given her *Vriesea* 'Galaxy' by a friend. It has been re-potted twice and is grown in good light which has brought out the beautiful pink flecks.

Gloria won her *Billbergia* in a raffle at the Gold Coast. It has thrived in full sun and has been divided several times.

Flo bought her *Billbergia* 2 years ago from Brisbane and it already had two pups on it. It is under shade cloth and receives morning sun.

Jeanette placed a collection of different *Tillandsias* on a mangrove root to make her very attractive 'Tillandsia Tree'.

Les explained the spelling when purchased was *coinagoi*, so if your plant has this spelling on the label please correct it to *Cryptanthus colnagoi*. The natural habitat is recorded as Bahia East Brazil, at 1000 metres. Margaret Paterson, almost 2 years ago sold me a tiny unrooted pup, this is one of the progeny of three pups and a sucker that is now growing from the old stump. *Crypt. colnagoi* is a small growing xerophyte (cam plant) and has been described as “a delicate *Dyckia*”. Perhaps it should be grown like a *Dyckia*, given plenty of light and adequate moisture in the hot weather. Having flowered, the leaves of the parent flopped onto the substrate.

The container is a 100mm Vanda slotted pot. Its small size and open sides prevents the substrate remaining wet for a prolonged period. The roots appear sparse, but they can extend 50cm from the plant - typical of roots that get under rocks to remain moist and cool.

As this is a green plant it has been under 50% white overlaid 50% red shade cloth. The weather is now cold and daylight limited therefore *Crypt. colnagoi* is in the open and fully exposed to all day sun. The day temperature may reach 25°C, while the mid-winter night temperature has been 10°C, should the temperature drop any lower plant will be taken indoors.

Nutrient, during the growing season has alternated between Black Gold and my 'home-made' substances. June and July I consider a dormant period, no water and the only nutrient is slow soluble from the potting mix. Soft Rock Phosphate, Diatomaceous Earth (D.E.) and Zeolite have been incorporated in the substrate. No disease has been seen and no pest can survive until the D.E breaks down.

A similar plant shown - I was pleased to select the parent of this plant from the raffle table, identified by Jeanette as *Crypt. bahianus*. It is a little bigger than *colnagoi*, while *colnagoi* has more pronounced leaf spines and a leaf edging of darker green. Please, to the donor and anyone else that has this species, put a label on your plant.

Suggestions for the proposed booklet - **Bromeliad Culture in Northern N.S.W.**

One excellent e-mailed suggestion is for our booklet to describe the plant. Another suggestion is that the cultural notes should be sufficiently brief to get two cultural notes per page and use Botanical Nomenclature to make the notes concise. These ideas are incorporated in 'Cryptanthus'.

Cryptanthus: The name is from the Greek “**cryptos**” (hidden) and “**anthos**” (flower). They are grown for the colourful foliage not the flower. Over 70 species and +1500 varieties / cultivars are known. Cryptanthus vary in size from 4cm to over one metre. Mostly acauline giving the name Earth Star. All are terrestrial endemic to tropical Brazil and can be: mesophytes, heliophytes, xerophytes and rupicolous. A desirable growing temperature is +15° to 35°C. Flowering once only they are almost self fertile, andromoeious and protandrous. After flowering the leaf tip becomes recurved and unless supported enter the substrate and rot-off.

N.B. The glossary section of the book will describe every botanical name/term: acauline = stemless, acerose = pointed, andromoeious = inflorescence mixed bisexual and staminate, protandrous = pollen shed before stigma is receptive.

Please will you make a contribution of how you grow a Bromeliad genus. Without help from the Group there can be NO book.