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

Edition: October 2026

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery
114 Pine Street Wardell 2477

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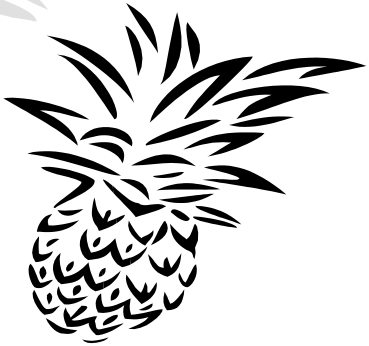
Study Group meets the 3rd Thursday of each month

Next meeting November 19th 2026 at 11 a.m.

Editorial Team:
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Life Members: Gary McAteer, Coral McAteer
Debbie Smith, Shirley Smith
Ross Little, Keryn Simpson



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Meeting September 17th 2026

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

General Business

Our attendance numbers were down this month, we hope those who were unwell have recovered and back on their feet. The lucky ones are holidaying overseas, hope you enjoy your holidays. Gary and Coral are caring for their son after an operation, we look forward to seeing you both back soon.

Lots of concern was shown in regards to potting mix care and handling. We all agree we should be more careful when opening bags of the various ingredients we add into our basic mix to create our own 'super mix', e.g. cow manure, sheep manure, mushroom compost, ash, rice hulls etc. Holding your breath is not the best option, wear a mask and breathe safely.

It seems that I'm stuck with the editor's job a bit longer as I own a lifetime copy of Publisher, so I'm not going to be cut off, yet *!!* Only those with an annual subscription will change apparently. Thanks for the info Kerry Mc and support from our computer tech, Diana.

Show, Tell and Ask!

At our September meeting we discussed which barriers help prevent natural hybrids in habitat. Natural hybrids do happen, there are quite a few of them, last count there were 187 with the majority being in Tillandsia plus another 26 not yet captured on the Bromeliad Cultivar Registry (BCR).

In nature most Bromeliads, even those growing in the same habitat generally don't compete with each other, some prefer the high light of exposed positions while others prefer the shade. Cross pollination does not occur with different genera that may be growing in the same tree e.g. Neoregelia x Vriesea, Neoregelia x Guzmania, Aechmea x Guzmania, Aechmea x Tillandsia.

Through observation of one's own collection one would notice different plants flower at different times. Therefore they most likely don't compete for the same pollinators because the pollinator's flower preference may be at different times of the day or year for different plant species. Pollinator behaviour can often prevent cross pollination because of their loyalty to particular flowers be it due to colour, scent or even volume of available food. Why waste energy for little return when other plants have abundant food/nectar ? Ants, bats, birds or moths are the pollinators, bats and moths are generally attracted to perfumed flowers at night.

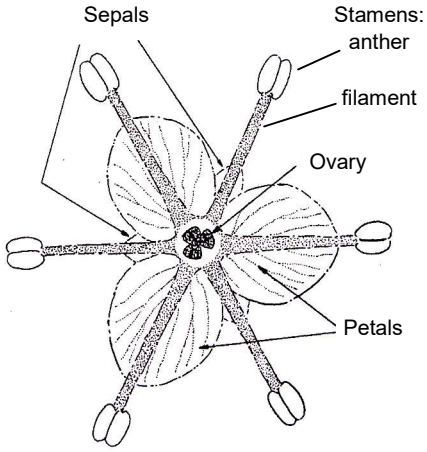
Another barrier preventing cross pollination in habitat is distance and isolation across mountain ranges. However change the ecology of the area by chopping down trees and clearing land for agriculture etc and some of the barriers can be broken. Natural hybridising can now occur if two different species grow near to each other and they flower at the same time e.g. two different Tillandsias.

Hybridization is a very common event in the evolution of species. Hybridization occurs in nature much more often than we would assume. If hybridization is followed or accompanied by mutation and if the result is of advantage, a new hybridogenous species starts to establish. If the results are of disadvantage (the vast majority of cases) the resulting hybrid soon will vanish. Such events of new establishments may last for hundreds or thousands of years if the resulting species is an outcrosser and is sexually reproducing. Our life spans are too short to observe these events and the results directly. As a conclusion, we have a steady coming and going of hybrids and a few of them will be the starting point of new species.

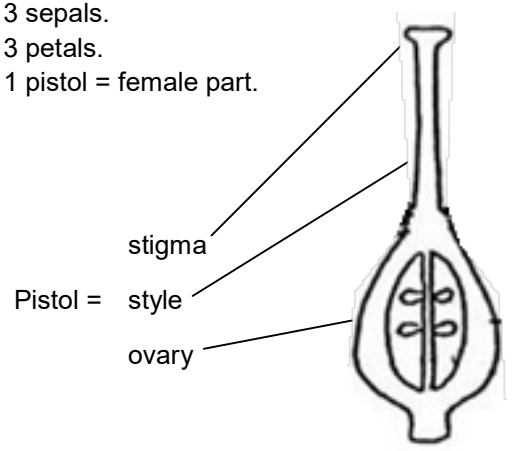
Of all the Bromeliads that grow in the wild, it appears that variegation is a rare phenomenon. As a general rule, variegated plants are less hardy and slower growing than normal, and those that form spontaneously in nature normally survive the competition for space and light only when man intervenes, taking them from the wild for cultivation.

Information gleaned from: The Biology of the Bromeliads by David Benzing and The Butcher Files.

Question:
What determines a Bromeliad ?



Answer:
The flower - all Bromeliad flowers have:
6 stamens = male part - anther (pollen bearing part) and filament.
3 sepals.
3 petals.
1 pistol = female part.



Open Popular Vote

1st	Ross Little	*Canistrum fosterianum*
1st	Shane Fitzgerald	*Neoregelia* 'Moby Dick'
2nd	Ross Little	*Neoregelia* 'Black Out' unreg.
2nd	Keryn Simpson	*Aechmea capixabae*

Tillandsia

1st	Ross Little	*Tillandsia subsecundifolia*
2nd	Shane Fitzgerald	*Tillandsia velickiana*
3rd	Keryn Simpson	*Tillandsia neglecta* (Red)

Judges Choice

1st	Shane Fitzgerald	*Aechmea* 'Aztec Gold'

Web Links for Checking Correct Identification and Spelling ?

Bromeliad Cultivar Register (BCR): http://registry.bsi.org/
Refer to this site for correct identification and spelling of your hybrid or cultivar.

Bromeliad Species Database (BSD): www.bsi.org/members/?bsd
Refer to this site for species identification, photos, descriptions and more.

New Bromeliad Taxon List : https://bromeliad.nl/taxonlist/
Refer to this site for latest species name changes and correct spelling.

Bromeliads in Australia (BinA) http://bromeliad.org.au/
Refer to this site for its Photo Index, Club Newsletters many with Table of Contents Index and there's Detective Derek Articles.

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

Where do I Find the Dates ?

www.bromeliad.org.au then click "Diary".
Check this site for regular updates of times, dates and addresses of meetings and shows in your area and around the country.

Canistrum fosterianum L. B. Smith, 1952.



Canistrum fosterianum
1st Open Ross Little

Canistrum fosterianum is semi-heliophilous, it requires bright light to help maintain its shape and colour. It grows mostly as an epiphyte but may also grow on the ground. It was found growing at altitudes of around 50 metres in the sandy coastal plain forests or transition zones, near the city of Salvador, Bahia.

Its form and leaf colouration make it appear similar to *Aechmea fosteriana* until *Canistrum fosterianum* develops an inflorescence. Its primary bracts form a well defined cup and turn a vivid reddish rose, contrasting with the white flowers which are in fascicles - the cluster of flowers within the bracts.

This species was named in honour of its collector, Mulford B. Foster who helped make Bromeliads a household name. Known as the "Father of Bromeliads", Foster made several trips into Central and South America and took back to the U.S many new species which were described by the botanist Lyman B. Smith.

Many of our plants carry his name in the following genera:
Aechmea, Billbergia, Bromelia, Canistrum, Cryptanthus, Dyckia, Encholirium, Gravisia, Griegia, Guzmania, Hechtia, Hohenbergia, Neoregelia, Nidularium, Orthophytum, Pitcairnia, Portea, Puya, Quesnelia, Tillandsia, Vriesea. There are many species within these genus bearing his name or have been found by him.

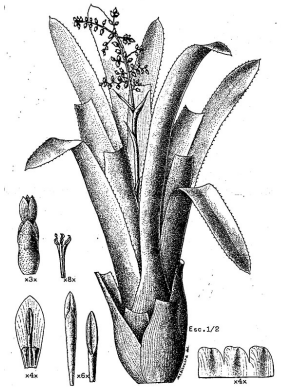
***Aechmea capixabae* - Misnamed Bromeliads 16** by Harry E. Luther

From: Journal of The Bromeliad Society, Inc May-June Vol. 46 (3), 1996

Aechmea capixabae L.B. Smith was first collected in July of 1939 by Mulford and Racine Foster near the city of Santa Teresa in Espirito Santo, Brazil. They re-collected it in the same locality a little over a year later. Apparently no living material was acquired, or more likely, none survived the rigors of the expeditions.

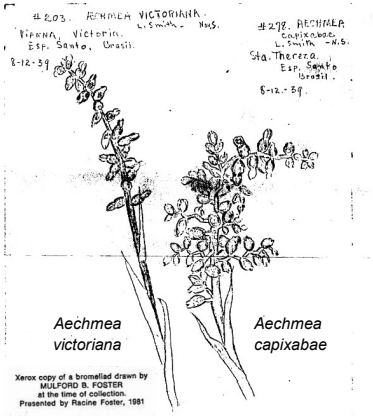
Aechmea capixabae was described and illustrated in 1941 in the Brazilian journal, *Arquivos de Botanico do Estado de Sao Paulo.* The drawing is rather unlifelike and does not accurately present the habit of the plant, although the various details of the inflorescence are clearly depicted.

At some point in the ensuing thirty-some years, the author of the species decided that *A. capixabae* was not a "good" species. In Flora Neotropica Monograph 14, part 3, 1979, *A. capixabae* is treated as a synonym of the quite distinct *A. victoriana* L.B. Smith. Adding to the confusion was the use of the drawing of the type of *A. capixabae* to illustrate *A. victoriana.* Fortunately, clonotypic material of *A. victoriana* has been well established in cultivation so the identity of this taxon has never been questioned. Because *A. capixabae* was not known in horticulture its validity has not been a matter of concern to horticulturists until very recently.



Ae. capixabae as *Ae. victoriana*

At some time during the last few years, at least two introductions of *A. capixabae* have been made. The first apparently entered North American horticulture as *Aechmea* 'fulgens var. kautskyana", a fictitious name. At least this association appears to be more accurate than the unnecessary synonymy with *A. victoriana.*



A. capixabae is closely related to *A. fulgens* but with smaller flowers and a differently shaped ovary. More recently the species, in a slightly darker color form, arrived with its true name.

A. capixabae is easy to grow if given moist and somewhat shaded conditions. It appears to be a bit more cold-hardy than *A. fulgens* but certainly should be protected from frost and freezing. Its only drawback appears to be the fear associated with pronouncing its name.

ae = ee (or eye in classical)

Photos by Ross Little, Drawings from the Butcher Files.





Aechmea capixabae grown by Keryn Simpson

PRONUNCIATION! In part from Stearn's Botanical Latin

Botanical Latin is essentially a written language, but the scientific names of plants often occur in speech. **How they are pronounced really matters little provided they sound pleasant and are understood by all concerned**. This is most likely to be attained by pronouncing them in accordance with the rules of classical Latin pronunciation. There are, however, several systems, since people tend to pronounce Latin words by analogy with words of their own language. Even within the Roman Empire when Latin displaced native languages having different speech rhythms there must have been great regional diversities of pronunciation, as indeed is evident from the different Romance languages, Spanish, Italian, etc., descended from it. Lack of uniformity in pronunciation led Erasmus in 1528 to publish his De recta Latini Graecique Sermonis Pronunciatione in which he described how a French ambassador at the court of the Emperor Maximilian made a speech in Latin with so Gallic an accent that the Italians present thought he was speaking French; a German, called upon to reply, sounded as if he was speaking German. Nevertheless, people were able to make themselves understood despite such differences of pronunciation. In 1608 Thomas Coryat, the author of Coryat's Crudities, travelled widely in Europe using Latin as an international language. In 1735-36 Linnaeus visited north Germany, Holland, England and France, likewise using Latin as his major tongue, for he knew little other than his native Swedish.

In English-speaking countries there exist two main systems, the traditional English pronunciation generally used by gardeners and botanists and the 'reformed' or 'restored' academic pronunciation adopted by classical scholars as presenting 'a reasonably close approximation to the actual sounds of the language as spoken by educated Romans'. Etc etc



Neoregelia 'Moby Dick'
1st Open Shane Fitzgerald



Neoregelia 'Black Out' unreg.
grown by Ross Little



Vriesea 'Hot Stuff'
grown by
Kayelene Guthrie



Tillandsia neglecta (Red) grown by Keryn Simpson





Tillandsia subsecundifolia
1st Tillandsia Ross Little



Tillandsia velickiana
grown by Shane Fitzgerald

Tillandsia bergeri
grown
by
Keryn Simpson



Aechmea 'Aztec Gold' a Variegation Lesson from John Catlan

In a group of *Aechmea recurvatas* of John Catlan's a plant with a good clear yellow stripe on one of its leaves was found.

"We have heard the unanimous lament that many plants that had shown partial variegation had not passed any variegation onto the pups. The low averages were definitely against success, but with this plant we hoped it was possible as the variegated leaf was low down in the butt of the plant where the pups originate."



Aechmea 'Aztec Gold'
Judges Choice Shane Fitzgerald

John noticed if a plant falls over the pups will form on the top side of the plant. This is the side facing the light source, the side that's receiving the most light.

To help reproduce more variegated pups from this single variegated leaf, John tried laying the plant on its side with the variegated leaf at the top facing the sun. The first pup was green and was removed, the second pup was yellow, being at the variegated leaf it was decided to leave it attached. The pup eventually produced a leaf with a solid green stripe and John realized this was a phenomena of this plant, it starts yellow but as the leaves develop the green stripe improves.

To promote the growth of 'Aztec Gold' John left the pup attached to the parent plant cutting off any green pups allowing all the energy produced by the parent plant to go to 'Aztec Gold' which matured and gave many new variegated pups.

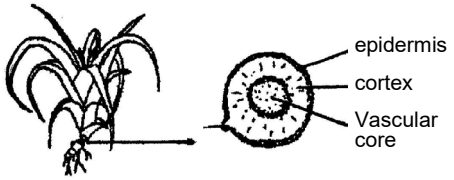
John grew 'Aztec Gold' in 170 mm hanging baskets close to the roof of the shade house and were fed a 9 month Ozmocote slow release fertiliser.

John Catlan - " Those who have had trouble growing 'Aztec Gold' are probably giving it too much water and not enough light and air movement to keep up with the watering". Shane has clearly ticked all the right boxes with his 'Aztec Gold'.

Information and quotes from: 'Bromeliads under the Mango Tree' by John Catlan

Neoregelia carolinae f. tricolor and Other Variegated Bromeliads.

No doubt many of you have experienced your most precious variegated plant has sent up plain non variegated pups. We will briefly look at the reasons why this happens.



Cross section view of a mature Bromeliad stem

The illustration shows your Neoregelia cut off at the base of the leaves.
A small axillary bud has been added to represent a new pup about to form.
The vascular core is where the green comes from.



Types of variegation in cross section

In variegates there is a ring called the albinistic tissue ring that is either white or cream and surrounds the stem perimeter or epidermis. This ring can be fixed or unstable. It can be temporary or permanent. In the illustration the outside wall has been darkened to represent the albinistic tissue ring.

In picture (1) we can see that the albinistic tissue ring completely surrounds the base, so that pups coming from this plant would duplicate the parent plant - all the pups would be variegated. I might add that this type is extremely rare and that some forms of this type can produce a very high proportion of variegated seedlings.

In picture (2) there are small segments of albinistic tissue around the epidermis, which means that both green and variegated pups will occur.

In picture (3) the albinistic tissue is confined to only one area and the plant will produce mostly wholly green pups. Any variegated ones are likely to be very unstable and very often revert to plain green.

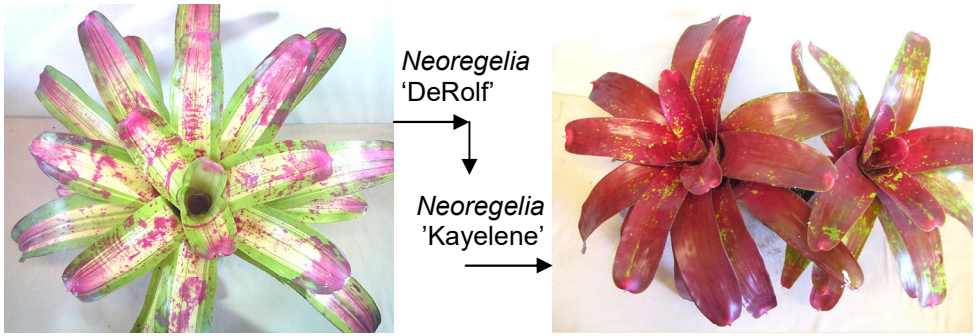
This has been a very brief overview of the cause of variegation of Bromeliads. Type two and type three are the most common but if you have a variegated plant that consistently (even to the bitter end) has variegated pups then it is possible that you have type one.

There are a few lessons for us all here. They are **NOT** to pass on plants that show a weakness in the variegation. It is better to keep the plant or destroy it, rather than pass it on to the disappointment of a fellow grower. So if you are swapping or selling variegated plants, please do make sure the variegations are well established. Otherwise we are only passing on the problem and let's face it, there are enough problems out in the bromeliad world.

By Gerry Stansfield in part from: Bromeliad Society of New Zealand Inc. Vol.41, No.8, Aug. 2001.

Variegation Experiment = *Neoregelia* 'Kayelene' (unreg)

In around 2012 our FNCBSG discussed getting variegated seedlings from a variegated plant. If your variegated plant is a known transmitter of variegation there is a good chance of getting variegated seedlings. For this experiment an opportunistic seed collection was made from *Neoregelia* 'DeRolf', the resultant seedling batch gave no variegation. Plants were kept for future discussions. *Neoregelia* 'Kayelene' (unreg) is the only one passed on, pollen donor unknown.



Variegation in Bromeliads

The word *'variegata'* comes from the Latin *variegatus, variegata, variegatum* meaning variable coloration with patches of different colours. Variegation is a rather common phenomenon in the plant kingdom, and is found in many plant families. It is especially pronounced in *Bromeliaceae.*

A Bromeliad is known as a *'variegata'* when it has two or more different colours. Over 60% of cultivated Bromeliads have bands, dots, lines and streaks and can therefore be considered variegated. The term is accepted in horticulture when applied to Bromeliads that have leaves with lines, streaks and longitudinal bands of contrasting colours, especially those that show differences in pigmentation between the green chlorophyll containing tissues and the albino tissues.



marmorate blotch spot zonate albo variegate striate

A Matter of Energy — Part 2

by Chris Larson

I believe that there is an over-reliance by many bromeliad growers on the concept of plants being forced into flower, when, for example, orchid growers have long had the view that food and light are the most important factors. I believe this has distorted our perspective. The tales of apple cores and plastic bags, and chemicals like Ethrel may have made us lazy in the way we think of why a plant flowers and why it doesn't. Of course these triggers are of use, especially when triggering things for a particular reason, e.g. shows, or to supply things out of season for commercial purposes. However, the biggest and best flowers come from a plant in perfect health, flowering when the right time has come with all the right resources – primarily food and light but also an NPK based fertilizer – are provided to it, rather than a plant triggered at that time.

On the other hand, if you want to set seed, the use of chemicals to initiate flowers is very useful. There are a few tricks involved in this, and it can be confusing at first. It is easy to time the flowers if they are the same species, though individuals will vary slightly in the time between triggering and anthesis, but different species and genera can take vastly different lengths of time between initiation and anthesis. If you intend to make hybrids, the timing of different species, from initiation to flower, can vary a lot. (There is the possibility of pollen storage to make up for this, but this is another topic.) The timing for plants to be ready for shows can be difficult. The amount of light, affected by clouds, can throw out the expected time of the antithesis by weeks.

The use of Ethrel, acetylene gas or other chemicals can be a dirty word in bromeliad circles, with many critical of its use. Many of those with experience in Ethrel think a plant that has been stimulated into flower will need to be fed well through the flowering process or else it will flower poorly. (I have heard studies of flower counts on pineapples fed after flowers have been initiated do not have a greater quantity of flowers on each spike, so my observations will need further investigation). Commercial suppliers add fertilizers in the mix to account for this, but collectors should be well aware of this when caring for these plants. I have found those bromeliads that are fed throughout the time between initiation of the flower spike, and the time of antithesis will produce a larger spike. If they are fed well past flowering, they will also throw more pups. Remember that the flowering and seeding process places a great drain on the plants resources, so the plant will be much healthier if these resources are replaced – or the plant may die after flowering – just like the *Aechmea blanchetiana* lady experienced.

Some people say that commercially grown plants have been pushed too hard, and will therefore suffer when put out into the real world. To some degree this can be true. However, consumers/collectors should be astute and responsible,

like when you buy a car – look to see if it is grown well or soft. If it has been grown soft, and you still want it, slowly harden it off. Commercial growers can feed heavily and produce a nice hardy plant, and responsible growers will attempt to produce a plant which will serve their customer well. They need to produce a plant in a certain time frame, because this affects the price they can afford to sell for – and if it is too expensive, few will buy their product. The amount of care the plant has had (how soft it is) shouldn't prevent you from purchasing the plant, though it should influence the type of care you give it while acclimatizing it to your conditions. After all – the only reason that some rare plants can be sold at the price they are, is if they are produced in a manner where they grow reasonably fast. It is necessary to assess any plant you buy, and treat the plant accordingly.

A few years ago I grew a *Neophytum* 'Galactic Warrior', which many of you would be familiar with. I grew it in a controlled greenhouse with regular food, both in the watering system and slow release in the pot. It got good light, and a minimum of 14°C. Additionally, once every couple of months, after it flowered I added 3 or 4 prills (granules) of Osmocote to the mix and 3 or 4 to the centre of the vase. In this environment I could take small pups off – with leaves about 3" long and be assured that they would power away. I got 14 pups from one plant. The 14th pup was every bit as strong as the first. The pups, all rooted very quickly as they were in premium conditions. Over the following years you could not tell which was the first the 7th or the 14th pup. Of course I'm not advising everyone do what I did, in putting prills of slow release fertilizer directly into the vase you may burn a valuable plant and get nothing.

There have been some very interesting articles printed recently on how to encourage pupping by planting bromeliads high in the potting mix, and also removing lower leaves so that pups form around the base more readily (Ref 2 and 3). High doses of fertilizers are then applied to encourage pups to form. In this way some growers have been able to produce quantities of rare plants which may be difficult to self-pollinate, or may not produce pups easily after flowering. Note (again) that it is important to provide heavily fertilized plants with the maximum light levels suited to that plant, not only will it result in stretched leaves without it, but the bromeliad will also need that light to photosynthesize.

'Under The Mango Tree' mentions how John attempts to control the growth factors to reduce the anxious wait over where the pup will come from when a plant which has variegation only on one side, he leans the plant over to that side to promote the pupping from that side. Using the same principle, mentioned before, of light at the base increasing the chance of offsets, John will increase his odds. Remember though, that the reduction of foliage to create this will reduce the plants photosynthesizing material, therefore reducing the energy available to push out pups. It is all a matter of balance.

Another of my little experiments that I did was with regard to monocarpy, but I must say a little about concepts associated with bromeliads that I have issues, which also relate to monocarpic plants, before that.

1. The fallacy that the habitat of a plant is its optimum environment. So often I have had people assume that they can know the habitat by the description in books. We can only get a brief idea from these descriptions. Sometimes plants only occupy patches of terrain, existing in certain micro-climates in these areas. Even when you visit these areas, it is fine to say how you saw it on a particular day, or week, but what is it like for the rest of the year?

2. That it is impossible to recreate its natural habitat – or possibly even to understand it – even when you've been there. Though never discard this, or any information, as it may provide clues if you have issues with growing the plant in your conditions.

A number of years ago I was concerned with some plants which were in the *Tillandsia limbata*, *Tillandsia utriculata* group. These plants were not of a great commercial value, because at the time I couldn't say that I'd got a single pup from the 20 or so I'd flowered. When I was down to 20 or so I did some reading, and Dr Benzings: Biology of the Bromeliads came in handy again. Particularly the bit about how the monocarps have big inflorescences and set lots of seed. I thought about this for a while and developed a strategy to tackle "this problem". I assumed that the plant expires from a lack of energy, giving its' energy to the spike and seed in preference to pupping. So the auxins were not switched off in time for the plant to be able to initiate offsets. So I set about cutting the flower spikes as they came up, as well as feeding the plant heavily to encourage the pups to form. I was keen, cutting the spike as early as possible to save the maximum energy from being wasted in the flowering process for the plant to devote to pupping.

Later my experiment was in full swing, it took a turn I didn't envisage. When I cut off the spike, it then developed another shoot from the usually dormant buds at the base of one of the lower scape bracts. I then cut it lower down chasing each shoot as they continued to appear. Soon the plant expired, using all of its' energy trying to flower. However I didn't give up. After wasting a couple of plants I found that there is a point at which the plants did not try to form another spike at the base of the cut spike. In the case of the *Tillandsia* aff*. limbata*, it was as the flower buds were starting to form. From anecdotal evidence I believe the point at which the plant will opt to initiate pups, rather than make another attempt at flowering, may vary in different bromeliads. Some people have said to me that they couldn't bear to cut the spike of their lovely bromeliad as they would like to see their monocarpic plant flower, get the seed, and grow the seed. My aim was to have, within three years, the offsets from these supposed monocarpic plants

in flower while having a backup of another to cut the spike off and produce more from offsets. I achieved this and had the best of both worlds, enjoying the flower on one pup as it matured while having another where I could remove the spike to keep more pups going. There are a number of supposedly monocarpic plants which I have found to produce pups simply by feeding them heavily during the flowering process. Often I have had collectors tell me that a plant cannot be a particular species due to the fact that I, or other growers, have produced pups on the plant. Even on one of the internet chat groups some very knowledgeable people insisted that plants such as *Tillandsia guatemalensis* were monocarpic, based on how the plants grew in the wild. We are not growing our plants in the wild, and often would not like our plants to look like many do in the wild. I believe that monocarpy is a tendency in particular plants, not a principle, and that it is possible to counter the factors which influence this. If the plant is dying after flowering, it is likely to be because of the effort necessary to produce the flowers and seed. Feeding may just be the answer.

All of the concepts I have talked about may seem obvious at first, but many growers may have not considered them together. There are many books and articles which explain these concepts in greater depth, and give an analysis of feeding rates, etc, for you to experiment further. To grow our plants better, we must provide our plants with the ability to function at their best, giving them energy, primarily from light and carbon dioxide, as well as a balance of NPK, minerals and trace elements. These elements work together, providing energy which is (mostly) pushed upwards. When it can't move upwards it initiates another eye and/or produces seed. If the new growth is removed it should produce another eye or multiples – to say it dies after flowering is not looking at the functioning of the plant. Our role is to control and provide the conditions to maximize the potential of our bromeliads. To do this we must observe and react accordingly.

Reference Sources:

1. Dr David Benzing - The Biology of the Bromeliads. p.101
2. Bruce Dunstan - "Variegated Alcantareas"
   Bromeliaceae, The Bromeliad Society Of Queensland.
3. Bruce Dunstan - "Alcantarea Propagation By Adventitious Pups"
   Bromeliaceae, The Bromeliad Society Of Queensland.
4. John Catlan - "Bromeliads Under The Mango Tree".

Thanks to Bruce Dunstan and Peter Tristram for their support in preparing this article.