Bromeliaceae

VOLUME XL - No. 3 - MAY/JUNE 2006

The Bromeliad Society of Queensland Inc.

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Queensland, Australia 4006,
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Front Cover: *Neo.* 'Royal Red Glow' (Unreg) Flower Photo by Ross Stenhouse

Rear Cover : *Aechmea* 'Bert' variegated Photo by Ross Stenhouse

Contents

To Our On-line/Overseas Readers

We would like to thank those of you who take the time to send us emails and give us feedback on the web site. It is via that feedback we are able to improve the service we can deliver to you.

We are looking for input to this journal from people outside of our region. It would be great to hear some news from an overseas source about how bromeliads are being grown in their area or to hear about species, cultivars or hybrids that may not have yet made to Australia. Our seedbank would also be interested to be able to exchange seed with people overseas who are after Australian varieties.

Plant Competition Results

Popular Vote May 2006 Meeting

Advanced		
First	L & O Trevor	*Vrieslandia* hybrid J.Arden
Second	L & O Trevor	*Vriesea* hybrid David Skeggie
Intermediate		
First	L Grubb	*Billbergia* 'Curly Top'
Second	B & A Kable	*Guzmania* 'Minnie Belle'
	B & A Kable	Portia
Novice		
First		
Second	B. Batchelor	*Aechmea* 'Samarai'
	G. Parkinson	*Aechmea* 'Freckles'

Popular Vote - Jun 2006 meeting

Intermediate		
First	L. Grubb	*Vriesea* 'Squiggles' x 'Red Chestnut'
Second	G. Vauhkonen	*Neoregelia* 'Shelldance'

Society Projects

The Society's Management Committee has decided to spend a further $1,500 on bromeliad books for the Queensland State Library. These books will be loaned by the State Library to Queensland public libraries, such as those run by local governments, for loaning by them to members of the public. The books should be supplied to the State Library by the 30th September 2006.

Two more societies have agreed to exchange journals/newsletters with us. They are:

· Townsville District Orchid & Allied Plant Society, and

· Ballina District Orchid Society

Over 20 non-bromeliad societites now exchange journals/newsletters with us.

2008 World Bromeliad Conference

This conference, sponsored by the Bromeliad Society International, was to be held in New Orleans. Because of Hurricane Katrina, this will now not occur. At the recent 2006 World Bromeliad Conference, it was agreed that the the next conference will be held in Cairns. This will be the first time the event has been held outside of the United States. Our Society will be working with the Bromeliad Society International's Australian director, Lynn Hudson to make this event a success. Further details will be provided in subsequent editions of *Bromeliaceae*.

New Members

Please welcome the following new members: Robert Coster, Coral Schwager, Craig Currie, Mike England, Barbara Schiappardori, Geoff Laughran, Steve Best, and Luke Pataan.

2006 Membership subscriptions

Our records indicate the a significant number of members have yet to pay their 2006 subscriptions. Please note that this will be the last edition of *Bromeliaceae* such members will receive until they pay their subscriptions.

CRYPTANTHUS 'IT': THE STORY BEHIND THE PLANT

(by Bob Reilly)

While we grow bromeliads because of their interesting shape, foliage or infloresence, the story behind many of them can be just as captivating. One such plant is *Cryptanthus* 'It.'

This plant has the typical star-shape of most cryptanthus. In good light, the plant's cream margins and striping turn pink, while the green portions of the leaf flush a faint pink as well. The plant's leaves have "wavy margins", as shown in the photograph on p.12 It is more cold-hardy than most cryptanthus, but leaf "burn" can occur if water is left lying on the plant in cold weather. It grows well in a potting mix of coarse sand, peat moss and perlite, to which a continuous release fertilizer has been added.

This plant's story was told by Racine Foster in an article in the Journal of the Bromeliad Society (November-December 1987, pp257-258. She wrote:

"…Just two days in Bahia has far-reaching effects in bromeliad horticulture. It was on October 19 in the Municipio of Marcas at 3,500 ft. on the Monte de Burro Range that Mulford *(Foster, Racine's husband)* picked up a crpytanthus which became famous in the plant world, collection #2466. The medium green leaves when turned over showed silver-gray-brown underside, but this did not make the plant conspicuous. It was the stiff, crinkled, wavy edges of the leaves that caught his eye. This pie-crust effect, more dominant, more rigid than other cryptanthus intrigued him. He credited these characteristics to the harsh wind-swept mountain conditions surrounding the small, sheltered thicket that was its habitat. When transported to other conditions, it proved to be a good trouper in the process of adaptation.

This curious cryptanthus grew very well in its new home in Orlando. So by the time Bob Wilson (then of Fantastic Gardens in Miami) saw it, Mulford could spare a few plants.

Bob was a careful grower who fed plants on a regular basis. Was it different nourishment, different light, different water, or just the built-in cell alteration that caused a change? For whatever reason, a variegated sport, a mutation, appeared on one of those green, pie-crust cryptanthus. It was a sensation! The soft green and white leaves flushed with pink did not resemble the stiff, crinkled plain green leaves of the mother plant at all. Bob Wilson, in a joyous moment, named the sport 'It'. Continuous removal of the side shoots did not deplete its energy, rather only encouraged its growth. It had a meteoric popularity. Many growers filled their greenhouses with this stunning, fast-growing crptanthus.

Collecting bromeliads in the wild can be a rewarding experience, not always on the spot, but when the surprises that issue later make bromeliad history. Such was the experience of *Cryptanthus* #2466.

What is #2466? So far as I know, the collected cryptanthus has never been botanically described because the plant was not in flower at the time of Mulford's collection and may not have bloomed thereafter. This sport, 'It', is *not* a hybrid. I must emphasise this point. No insect or human hand with paintbrush has anything to do with putting pollen from male flowers onto the stigma or female parts of #2466. The handsomely variegated pup was, originally, a mere chance offshoot.

Bob Wilson described 'It' as a "mutation nova" which is exactly the perfect description for this most unusual cryptanthus. Eloise

Continued on page 15

Seed Bank

In response to the request in the last edition of Bromeliaceae for anyone interested in running a seed bank for BSQ members, we were lucky that member Doug Parkinson has taken up the task of setting up and operating the seed bank. Doug is looking for someone who can tell him how to obtain a list of all Brom & Tillandsia & Cryptanthus Societies and Associated Societies/Clubs in Aust /NZ/US?

Gwen and Doug are the founders of Caboolture and Districts Bromeliad Society Inc. - Gwen being President and Doug Secretary of the new society of approximately 70 members, and they also run the Pumicestone Bromeliad Study Group at their property for learner and interested growers.

Doug is compiling a list of anyone who may be interested in supplying seed and also in obtaining seed, so if you can help in this, or need information on the new society or study group please contact Doug at 51-53 Analie Street, Ningi 4511 Qld. or phone (07) 5497 5220 or E-mail Doug at seedbank@westnet.com.au

See page 38 for the operating rules for the seedbank.

Schedule of Presentations at Forthcoming Monthly Meetings

July : Greg Aizlewood will give a presentation on Billbergias species & cultivers

August : Bruce Dunstan to give a presention on large form Neoregelias

September : How the marking & coloring of Neoregelias are formed by John Catlin

October : Bromeliads in the landscape by Arno King

Vacancy - Society Secretary

Unfortunately our Secretary, Norma Davis, has had to resign for health reasons. We all wish Norma the best, and hope she recovers soon.

Consequently, we are looking for a Secretary and would love to hear from anyone interested in taking the role on. No knowledge of bromeliads is necessary. It probably requires about 10 to 15 hours work a month and you would need to be able to attend the committee, as well as the general, meeting, most months. This is a good way to get to know a lot of members quickly and, thanks to Norma's (and Karen's before her) efforts all the systems and procedures needed to do the job are in place. All membership queries are handled by our membership secretary, Roy Pugh.

If you are interested in doing this job until our next Annual General Meeting in February 2007, please contact the President, Bob Reilly, on phone (07) 3870 8029, or by email at: thereillys@dodo.com.au

Bob Reilly

Bromeliaceae Production Crew

Editor: Ross Stenhouse
Proofreader: Roy Pugh
Regular Contributors: Derek Butcher, Rob Smythe, Peter Paroz, Rob Reilly, Beryl Batchelor, John Higgins

Photographer's Code

RS - Ross Stenhouse
BB - Beryl Batchelor
DU - Doug Upton
GC - Greg Cuffe

The Editor's Desk

by Ross Stenhouse

Well, it's that time again when I get to reveal my current thoughts. Each issue commences as being a bit of a mystery and as I compile it, the theme starts to fall in place. This issue has a distinctly Guzmania/Vriesea flavour in terms of articles and images. Putting together an issue is a combination of sweet and sour. The sweetness is obtaining and placing the major articles, the sour is finding short pieces to fill in the half or quarter columns left.

In this issue we have endeavoured to add a human touch with a stories about members past and present. We hope to continue the theme with stories about a early members of society each issue. If you are able to help our by writing a story or two, then I would be interested to hear from you. By informing members of the personalities that constituted the society in past years, I hope people will be able to appreciate the excellent foundations that they achieved and how underwrites the success, the society enjoys today.

I really am interested to hear how people are coping with the new water restrictions, I think that we will need tohave a completely new approach to the way we tend our plants. Water restrictions will no doubt become a fact of normal life as our water supply infrastructure fails to keep pace with an rapidly expanding population in S.E Queensland.

In the last issue, we canvassed the idea of a BSQ seed bank. This idea was prompted after reading about a similar concept being operated by the Bromeliad Society of New Zealand. Please support this concept. We will be running a number of articles on growing bromeliads from seed in future issues of this journal. The intention is to expose members to the techniques in hybridizing bromeliads and how to register any promising results.

GENERAL MEETINGS are held on the third Thursday of each month except for December, at the Uniting Hall, 52 Merthyr Road, NewFarm, Brisbane, commencing 8 pm.. Classes for beginners commence at 7.30 pm. Plant sales begin at 7.00 pm.

FIELD DAYS are held regularly in the gardens of members as advised.
MEMBERSHIP FEES: Family $20, Single $15 pa
The BSQ web page can be accessed at w.w.w.bromsqueensland.com

Bromeliaceae Copy Deadlines

Jul/Aug.....July 5th, 2006
Sep/Oct .....September 5th, 2006

Please forward all copy and photographs to:

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Phone: 07 3376 5558 Email: rossjanstenhouse@hotmail.com
Electronic copy RTF or MSWord 7.0 or earlier - Times New Roman

HANNIBAL, NORMAN, and TUNISIA

(by Chester Skotak)

Editorial comment (Bob Reilly): Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, November-December 2002, v 52 (6), pp 244-246.

Neoregelia carcharodon 'Tiger' is a beautiful plant and has been used to produce several outstanding hybrids. In this article, Chester Skotak describes its "discovery".

Reading the international bestseller, *The Orchid Thief*, by Susan Orlean, I noted yet another tall story was told about the origin of *Neoregelia* 'Fireball'. This little neoregelia might be one of the most "found" plants in the bromeliad world. Which brings me to my story. I want to be the first in the line of storytellers to claim *Neoregelia carcharodon* 'Tiger'. Hopefully, my story will be followed by other stories, leaving 'Tiger' to yet another dubious origin.

Someone at the conference in St. Petersburg had remarked to me that *Neoregelia carcharodon* 'Tiger' was not a *carcharodon* at all. This was not an earth shattering statement to me.

After seeing Ed and Moyna Prince's perfectly grown 'Tiger' in the marvellous display put up by the Bromeliad Society of South Florida, my memories started racing back to the day this plant was "discovered".

I have to add here that I always wonder about new plants discoveries, since the plant had always been there, somewhere, only waiting for someone with a pedagogic mind to collect, dry, dissect, compare and categorise said plant, only later to report that such new discoveries were now extinct or in overabundance, similar but different, and only more research and grants could tell the tale. So I now refer to this new discovery and hope it doesn't get kicked around too much.

Not so long ago, I was travelling north of the city of Niteroi, in Rio De Janeiro state, looking for new bromeliads. I was travelling with my good friend and well-known botanist, Pedro Nahoum. On this particular day, we stopped to visit a dilapidated orchid nursery off the main road. The old wooden slat houses were leaning to one side, not by design, but because of their age and the direction of the predominant wind. Browsing through so many orchids was dizzying, when suddenly two plants really caught my eye, not orchids at all.

It was a pair of wonderfully banded, somewhat large neoregelias under the bench mixed in with weeds and orchids. I remember thinking to myself that it was my good fortune that they were only orchids popping and crunching under my feet, and not those wonderful undescribed neoregelias.

The neoregelias under the bench looked back at me like two large basketballs painted to look like tigers; the plants were heavily banded and mahogany in colour. They had been found in nature this way. Plants made by the hybridizer of hybridizers.

We asked the owner of the nursery where he got these two neoregelias. After a lot of foot dragging, looking up towards the heavens and muttering and pretending to be deaf, we realised this was getting us nowhere. Somehow, call it divine intervention if you must, the orchid owner decided to go that day and see if there were more plants to be found. We were not invited for the hunt. Returning to the orchid nursery the next day, the owner reported to us, sadly, that he had only found one more plant.

He pointed towards the hills behind his nursery, and waving his hand from left to right, said: " The plant is from there." This area he was pointing to must have been a full

one half of South America. As always when one is travelling, the reasons "not to" were many more than the reasons "to". It would be a long walk, there was no time, and anyway with the two neoregelias you can make thousands of seedlings, and now we had three. So I left the area hesitating and looking west towards the hills over my shoulder. I kept wondering what other treasures were out there for the finding.

On my return to Costa Rica, work began on crossing *Neoregelia punctatissima* x *Neo. carcharodon* 'Tiger' to produce *Neo.* 'Hannibal Lector'. Look for *Neo.* 'Norman Bates', a cross of *Neo.* 'Hannibal Lector' x *Neo. carcharodon* 'Tiger' – very heavily banded with short wide leaves. Last of all (at least for now) is *Neo.* 'Tunisia' a cross of *Neo.* 'Hannibal Lector' x *Neo. punctatissima*. All of these are very heavily banded neoregelias.

The potential for new, banded neoregelias looks promising thanks to 'Tiger'. There are many talented hybridists currently working on this group of neoregelias. Who knows what these creative people will come up with in the future?

Oh, I forgot to mention, how did my conversation end with that fellow that informed me that 'Tiger' was not a *carcharadon*? At first I thought I should read him his Carmen Miranda Rights (Brazilian Law) but I calmed down. Sure, I have my doubts about this being a *carcharodon*, but at least 'Tiger' has a point of reference, and I told him if 'Tiger' is described one day, then at least there is a story to go with it, and whether it is dubious or not, that's how it is…

FLOWERS BUT NO PUPS!

(by Bob Reilly)

Occasionally, flowering bromeliads will produce miniature infloresences in place of pups. The photograph of a guzmania hybrid on page12 was taken by Greg Cuffe. It shows that, instead of pups, three small infloresences have formed at the plant's base, in addition to a normal inflorescence.

On page 12 there is a photograph of a Tillandsia capitata 'Rio Hondo' taken by Doug Upton that has done something similar. In this case, miniature flower heads have emerged from nearly all of the leaf axils.

A T. fasiculata plant of mine has done the same thing, except that it produced six miniature infloresences.

Does anyone have any ideas as to what causes this phenomenon? (The trait does not appear to "pass" from one generation to the next).

Level three watering restrictions in S.E. Queensland have started

Well, level three water restrictions are upon us here in S.E. Queensland. I know that for me, it will impose a degree of hardship that I would rather do without and I really don't have all that many broms.

For those readers in other parts of Australia not familiar with what "Level Three" is, it means that all watering of plants must be done either from a bucket or watering can if you are using mains supplied water. The alternatives are to put in a rainwater tank or put down a bore where it is feasible.

Using bore water could introduce its own set of problems. A water analysis should be obtained from the Dept. of Primary Industries prior to using bore water. Many bores supply water which is high in dissolved salts that could cause harm to your plants. Tank water on the other hand offers a good solution if only relatively small amounts are required. How about sharing any good ideas on methods to water bromeliads!


'Hannibal Lector'
RS


'Norman Bates'
RS


'Hannibal Lector'
RS


'The Governors Plea'
RS


‘Macho’
RS


'Tiger'
RS


'Rainbow'
RS

NEOREGELIA CARCHARODON

(by Bob Reilly)

This is a large-growing neoregelia that often reaches 100 cm in diameter when mature. Because of its size, it makes a very useful landscaping plant, although the distinct, black spines on its leaves means that it is best if you plant it well away from footpaths!

I know of three different clones, although there are probably more in Australia. The clones are: *Neo. carcharodon* 'Tiger', *carcharodon* 'Rainbow', and *carcharodon* 'Macho'—sorry if I offend any botanical purists out there, but this is the best name I have for this plant.

Chester Skotak describes how *Neo. carcharodon* 'Tiger' was discovered in an entertaining story on pp. 8-9 of this edition of Bromeliaceae.

Descriptions of the three clones are:

***carcharodon* 'Rainbow'** Around 20, 10 cm wide, leaves form, at flowering, a 120 cm wide semi-erect rosette. The green leaves have dark green markings and turn a light orange in good light.

***carcharodon* 'Tiger'** About 20, 8 cm wide, leaves form an open rosette approximately 100 cm across. The green leaves have brown-purple bandings and tips, as well as distinct black spines. The ends of the older leaves turn brown-red in good light.

***carcharodon* 'Macho'** About 15, 10 cm wide, leaves form an open, semi-erect rosette approximately 100 cm across. The purple-green leaves have distinct black spines.

Photographs of these plants appear on page opposite.

Personally, I think *Neo. carcharodon* 'Tiger' is the more attractive plant of the three. All plants can take a fair bit of sun. In southern Queensland, some people have had success in growing them in full sun in late Autumn/winter/early spring, with full morning sun, (and at least 50% shade for the rest of the day), for the balance of the year.

Their relative sun-hardiness makes them well worth considering as landscaping subjects.

Cheaster Skotak has used *Neo. carcharodon* 'Tiger' as a parent in several hybrids. Photographs of three of these hybrids, namely, 'Hannibal Lector', 'Norman Bates' and ' TheGovernors Plea', appear on page opposite. Their descriptions are:

'Norman Bates' About 15, 4cm wide, leaves form an open, flat rosette approximately 80 cm across. The green leaves have brown-purple bands and markings.

' Hannibal Lector' About 15, 5 cm wide, leaves form an open, flat rosette approximately 60 cm across. The green leaves are heavily covered with brown-purple bands and markings.

'The Governors Plea' About 15, 6 cm wide, leaves form a flat, open rosette approximately 80 cm across. The shiny green leaves have distinct spines and irregular brown-purple banding. As the leaves age, the banding gradually disappears.

None of these hybrids appears to be as sun tolerant as *Neo. carcharodon* 'Tiger'.

All of these plants are still relatively rare, although they are becoming more common. I suspect large numbers of them may not be available for three to five years.

Acknowledgements: I thank Ross Stenhouse for taking the photographs used to illustrate this article, and Len and Olive Trevor for making the plants available for me to study and for Ross to photograph.

Wanted: Old Venetian Blinds to cut up to make plant Labels

Contact Joe Green Ph. 3343 2650


DU
Tillandsia capitata
'Rio Hondo'


GC
Guzmania Hybrid


Cryptanthus 'It'

Cultivar Registration - How Easier Can It Get?

by Derek Butcher

In the 1990's hybridists laboriously completed the Registration application form and sent it to the USA with photographs. At the best, it was some weeks before you got acknowledgement. From 2000, things were streamlined when the Cultivar Register was transferred to computer format and a database was added to the BSI website under the control of Mike Andreas. Acknowledgement is now a few days!

1. You can now register on line at http://BSI.org with instructions

2. You can down-load the application form and information about how you do this and complete in long hand and submit by Mail. It is possible, if there were sufficient enquiries, for the Queensland Publications Officer to hold a supply of these forms.

3. You can send all the detail via Email with jpegs for photos to me at tillands@senet.com.au

4. You can send all detail by letter to me at 25 Crace Road, Fulham 5024, South Australia.

The minimum requirements are Cultivar name, parent names, date hybridisation done, size at maturity, plus a coloured photo of the plant at maturity. (In the case of say *Neoregelia* one photo may suffice but *Billbergia* may require one of plant and another of inflorescence.)

If all detail is submitted, these are recorded as Formal registrations.

This is the responsibility of the hybridist or a close colleague because after all, it was his/her work that brought a new looking plant into the world

Alas, this does not always happen and to try to prevent an explosion of unidentified hybrids in circulation we 'grandfather' in these clones. While the originator may not have culled for superior clones their very survival suggests that someone gives preference to them!

Many people who have these plants do let me know the detail with photos, these are also listed but not as formal registrations. This is because the only time you can get correct identification is when the name is allotted to the plant and the further in time we get from this point, the more we have to assume.

Most names are acceptable but please don't use numbers, or names like 'Best' purely because there may be better plants in the future, or colours, although I know that 'Ginger' has crept in but that has several meanings. One name, *Tillandsia* Anwyl Ecstasy #25 gave me a few problems although it was finally registered as 'Anwyl Ecstasy'. My view was that this was misleading with the question sure to be asked

" If #25 is that good what is #1 like? " – And there aren't any others.

If you have a computer you can easily check on the Register to see if your chosen name has been used before. It is better to use two words rather than one to reduce the chances of duplication.

Remember a Taxon is a plant with a Latin name that has been properly identified and published. All other plant names are ignored by the taxonomist.

Remember that a Culton is a plant with an Anglicised name that has been identified and accepted in the Bromeliad Cultivar Register. The fact that the name is on a nurseryman's list or in a Journal does not mean it is legitimised.

Membership application forms are available from the association web site.
http://www.bromsqueensland.com


Ae. 'Silver Streak' RS


Ae. 'Xavante' RS


Ae. 'Mary Hyde' RS


Ae. 'Costa Rica' RS

AECHMEA NUDICAULIS REVISITED

(by Bob Reilly)

In the March-April 2003 edition of *Bromeliaceae* the wide range of *Ae nudicaulis* clones available today are discussed. For example, about 30 different clones were "tabled" at the January 2003 meeting of the Society, while one United States' collector was reputed to have had over 300 clones.

Because it is practical now to bring you colour photographs of *Ae. nudicaulis* in *Bromeliaceae*, the information in the March-April 2003 edition is repeated along with some additional material. Photographs appear on the page opposite.

If you have photographs of other clones, please send them to the Editor, so they can be run in future editions.

The name "nudicaulis" means naked stem. It refers to the scale-shaped, flower bracts (that are often absent altogether), on the plant's infloresence.

The plant occurs naturally throughout much of Mexico, Central America, West Indies, Venezuela, and Brazil. It grows both as an epiphyte and as a terrestrial.

Ae. nudicaulis is very variable in size and leaf colouration. Typically, a few leaves form a "tight", tubular rosette, which varies from 15 to 70 cm in height. The leaves can be green, red or brown (or some combination of these) in colour, and may have gray or silver banding. Many variegated clones exist. The plant's infloresence is typically a simple (that is, not branched) cylindrical, 5 to 25 cm long, spike of yellow-petalled flowers with red bracts.

The plant is easy to grow and flower either as an epiphyte tied to a tree, growing on rocks, or in a pot. If grown in a pot, the pups soon "clamber" outside it (as they are formed at the end of long, woody stolons), and form a clump surrounding the pot.

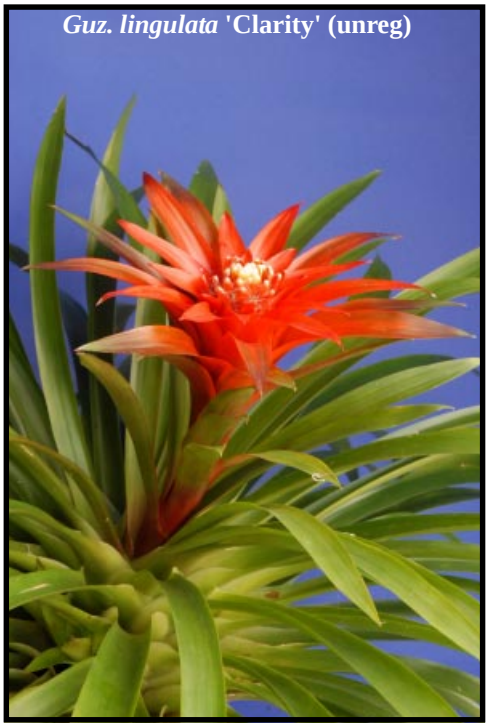
It grows easily in the garden, but it is preferable to avoid placing plants (at least in southern Queensland) where they receive the full afternoon sun in summer. Unusually, certain variegated clones are sometimes more sun-hardy than non-variegated clones. (The reverse is normally the case for most bromeliads).

Some additional points about these plants include:

- This species has seven botanically recognised varieties and forms. There are many more named cultivars, only some of which have been registered. Outstanding ones include "Silver Streak' and 'Mary Hyde'. In addition, there are many unnamed clones.
- They make excellent landscaping subjects as, while they readily grow on hollow logs and stumps, their erect growth habit and sun-hardiness gives them an "edge" over many other bromeliads in such situations.
- An attractive bromeliad tree can be "constructed" using only some of the different clones of this species for planting material.
- Most clones of this species have an indentation like a "thumb mark" towards the base of each leaf. As few other bromeliads have this feature, its presence usually means the plant you are looking at is *Ae. nudicaulis* or one of its hybrids. (Many hybrids having this species as a parent also display this characteristic).
- The plant rapidly forms a clump, and flowers annually.

Continued from page 5

Beach later suggested a very unusual use for this cryptanthus: 'It' can be used as a light meter! The location that produces the most pink flush in *Cryptanthus* 'It' leaves is an excellent place for growing most other bromeliads. From bromeliads we have much to learn!…"


Guz. lingulata 'Clarity' (unreg)


Guzmania blassii


Guz. 'Gwendolyn'


Guz. 'Rana' variegated

HOW TO RECOGNIZE A GUZMANIA: A GUIDE FOR THE LAYMAN

(by Mulford Foster)

Editorial comment (Bob Reilly): Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, September-October 2005, v.55 (5), pp. 229-230. (This article was originally published 50 years ago, but still remains relevant today).

We are always being asked for a simple rule or guide to tell whether a certain plant belongs to this or that family or section of a family. We are so often asked: "How do you tell a guzmania when you see one? What are the outstanding features that separate it from some of the other bromeliads?"

When you take into consideration that botanists have been trying to settle this question for 200 years and that few of them have completely agreed with each other, it is not so readily explained as some of the laymen, who have little more than their casual eyesight and wishful thinking to rely upon, wish it to be. There are few short cuts for the botanist so the layman shouldn't ask for, perhaps, one rule that has taken the scientist years of observation and study to learn.

There are certain outstanding characteristics that a guzmania must have. However, several of these very same characteristics are common with other genera as well.

First of all, every guzmania must have smooth edged (entire) leaves. There are no spiny edged leaves in the guzmania group. The leaves are generally glossy and the plants are generally in the form of a many-leaved rosette. In most species there are fine-pencilled longitudinal lines, brown or maroon, showing faintly or strikingly in the leaves, usually most evident near the base of the leaves. Certain exceptions such as *Guzmania musacia*, will not show these longitudinal lines but may show very striking bands of pencilled markings of maroon or dark green colour instead.

The flower head of a guzmania may be on a tall scape or it may be sunken in the leaf rosette. It will be in a close, head-like form if low, but may also have a close, head-like formation on a long stem. Some flower heads are in a tight, cone-like form while others are on long spikes with short, compact branches or long, open branches. One characteristic in a guzmania that a layman can see easily is that the flowers are always in more than two rows, while in most species of *Tillandsia* and *Vriesea* they are in exactly two rows.

All guzmanias have plumose seeds, (generally brownish): the little feathery parachutes that float on a current of air. (All members of the subfamily, Tillandsioideae, [to which guzmanias belong] will have this kind of seed, but not all are brownish).

No matter what the form of the scape or the seed, it will be necessary for final identification of a guzmania, (and for that matter any bromeliad) to examine the parts of the flower which can be seen when you dissect a flower. First, you must remove the floral bract, then the sepals which are generally attached to each other at the base; then with the aid of a magnifier, you examine closely the petals.

Most of the guzmania flowers do not open very wide, if at all, and then usually but very little. However, some spread completely open with recurved petals. Guzmania flowers will be, generally, white or yellow. All flowers will have colourful floral bracts which may appear to be petals, especially in the closely framed heads such as *G. lingulata*. These bracts may be yellow, green, white or red-orange, and many of them also have pencilled longitudinal lines, like the leaves.

Guz. 'Rosie'

Guz. 'Apache'

Guz. 'Grand Prix'

Guz. 'Mini Blush'

Of sepals, there are three; they are the flower parts that surround or contain the three petals. In guzmanias, the sepals will be fused near their base. The edges of the petals will be smooth - not serrated.

The petals, however, will give the final decision, and it is on the basis of whether or not they will be joined together but not fused. In guzmania, there will be a "good glue" job as Lyman Smith says. The petals can be separated without actually tearing the tissues in the process. Some may be joined higher than others.

Also the petals must be naked, without nectar scales at the base of the petals.

If the petals are definitely fused or grown together at the base and have nectar scales at the bottom of each petal, then, most likely you have a vriesea. But if the petals are separate and have no nectar scales, then you probably have a tillandsia.

If the layman becomes bewildered at this seemingly technical approach, may I say that I have endeavoured to simplify and synthesize, to a minimum, those characteristics essential to the determination of a guzmania without which your observations will have no valid frame of reference.

A little keener observation, a little more analysis, a little more curiosity, and a little more insight into the flower will enrich your Flower IQ.

MORE GUZMANIAS

(by Bob Reilly)

In the September-October 2003 edition of *Bromeliaceae* there was an article titled: *Growing Guzmanias*. This is an expanded version of that article.

Guzmania was established as a genus in 1802. While there are about 200 species, many beautiful hybrids have also been developed. Virtually all hybrids have been developed in either Europe or the United States of America. Guzmanias are mainly grown for their spectacular and long-lasting inflorescences. For those people who have internet access, pictures of many of these plants are available in the Photo Index section of the Florida Council of Bromeliad Societies' website (http://fcbs.org).

Flowering guzmanias can be brought inside the home for several weeks without affecting them. This also applies to air-conditioned premises. Their desirability for this use is enhanced by their lack of spines.

In nature, they are usually found in heavily shaded areas of humid rainforests. Virtually all grow as epiphytes, rather than terrestrials. These two factors are the key to growing them successfully.

Guzmanias perform best when grown in pots in a shadehouse, although a few of the hardier ones will be happy in well shaded (but not dark), damp areas in a garden. They like to be covered by 70 to 75% shadecloth for most of the year with some additional protection, if possible, during the hottest part of the year (mid November to end of February in southern coastal Queensland). If it isn't practical to provide some extra shadecloth during the hottest part of the year, try relocating them to the shadiest part of the shadehouse, for example, where a tree shades the shadehouse from early afternoon onwards. Plants with a "bleached" appearance are receiving too much sunlight.

Guzmanias prefer to be spaced out so that the leaves of plants are just touching each other (if the bottom leaves of a plant are dying off, they are probably too crowded). This density helps to achieve good air circulation which guzmanias, given their epiphytic nature, strongly prefer.

During winter, one heavy watering a week is sufficient. Over summer, two heavy waterings per week are necessary and, desir-

Guz. lingulata minor

Guz. 'Marina'

Guz. 'Anita'

Guz. 'Limones'

ably, daily light waterings as well when the maximum temperature exceeds 30 degrees Celsius. (A heavy watering results in the "vase" formed by the plant's leaves overflowing for several minutes, while a light watering is sufficient to fill the vase and wet all of the plant's leaves). During winter, aim to water plants between 8am and 10am (and then only on warm days), while in summer water between 6am and 8am or 4pm and 6pm. Try to keep the humidity high in the shadehouse at all times (covering the floor with pine bark chips which are regularly watered helps achieve this outcome).

Guzmanias need a potting mixture that drains readily, but retains moisture between waterings. One mixture, which achieves good results, is composted pine bark combined with some peat moss or Cocopeat (Composted pine bark can be bought from some landscaping centres. You can make your own by buying some of the smaller sizes of commercially – available pine bark and allowing it to "weather" in the open air for 6 to 12 months). A continuous release fertiliser such as Osmocote or Nutricote should be added to each pot, when the plants are potted.

Another good mixture is bark chunks, such as those used to grow Cymbidium orchids, which have been treated with a special type of fertiliser dissolved in water. (The bark chunks can be bought in 50 litre bags, while the fertiliser is sold by the Bromeliad Society of Queensland). The mixture can be improved by adding charcoal to it, in the ratio of 1 part charcoal to 7 parts treated bark. However, this potting mixture is more expensive than the other approach.

So far, the approach described for growing guzmanias is similar to that used for many ferns. However a major difference is the use of liquid fertilisers once the plant is potted. Guzmanias could be described as the liquid fertiliser "guzzlers" of the bromeliad family. They love it! Use a liquid fertiliser such as Phostrogen (in the concentration recommended by the manufacturer for indoor plants) at least once a fortnight. Ideally, foliar feed them every week. Not only will this give strong, healthy plants but it is essential to achieving large inflorescences. Apply liquid fertiliser throughout the year, but ensure the plants' leaves are wet beforehand.

Guzmanias have few pests and diseases, although sometimes they are subject to scale attack. Scale can be treated with insecticides such as Folimate.

Guzmanias reproduce readily through offsets (pups). Pups should be one third to one half the height of the parent plant when they are removed. Avoid the coldest, and hottest, times of the year when removing offsets. The best times (in southern coastal Queensland) are: October to early November and mid February to late March.

Guzmanias usually produce two " batches" of offsets. Give the parent plant a continuous release fertiliser such as Nutricote or Osomcote after removing the first batch of pups. Continue to apply liquid fertiliser, and a second batch of three to four strong pups will often be produced. Plant the pups directly into one of the potting mixtures described previously, ensuring they are firmly held by the mixture.

There are over a hundred species and hybrids available in Queensland. The plants described below are: in most cases, readily available, easy to grow, usually produce three to five offsets, and have long lasting inflorescences (all stay in colour for at least two months).

Relative to the number available, there are few species listed. This is because the colour of their inflorescences usually fades after two to four weeks, while some are also difficult to grow. However, some are spectacular when in bloom even if the "show" doesn't last long

(an example is the broad – leaved form of *G. sanguinea*).

Plants are described under three size categories: small, medium and large. The actual sizes you will achieve depend upon your growing conditions. In a few cases, the plant's names may not have been officially "registered". However, they are commonly sold under these names in southern Queensland.

Small Guzmanias

(Plants are typically up to 25 cm wideand high. Grow in a 100 mm "squat" pot).

'Anita' About 30, 1.5 cm wide, green leaves form a semi-erect rosette approximately 30 cm across. The orange-red, star-shaped inflorescence is about 10 cm wide.

'Empire'. Around 20 leaves, about 1.5 cm wide, form a rosette 30 cm across. The star-shaped inflorescence is red, shading into orange, in colour. It is about 12 cm in diameter. It is a form (cultivar) of *G. lingulata* var. *minor.*

***lingulata* var. *minor*.** This plant has up to 30 thin, light green leaves forming an "arching" rosette. The inflorescence is at the end of a short stem (floral scape) and appears just above the leaves. It is shaped like a small cup and is about 40 cm in diameter.

There are several forms of this variety. The inflorescence's colour ranges from red to orange. Variegated forms also occur, with the hardiest having a red/orange inflorescence.

***lingulata* 'purple'**. Similar plant to Empire, except the inflorescence is a dark purple.

***lingulata* 'White'**. This plant has about 15 leaves. Its white, star shaped, inflorescence is about 10 cm wide and rises above the plant's leaves.

Medium Sized Guzmanias

(Plants are typically up to 50 cm wide and high. Grow in a 125 mm squat pot)

'Amaranth'. The plant has up to 20 leaves. It has a purple, torch-like inflorescence, which is about 10 cm wide and 30 cm long. The inflorescence is raised above the plant's leaves.

'Amethyst' Numerous, 2 cm wide, leaves form an erect rosette about 50 cm across. The green leaves have cream stripes of varying widths in their centres. The purple inflorescence is about 20 cm long and 10 cm wide.

'Candy Stripe' (unreg) About 20, 2 cm wide, green leaves form an open, semi-erect rosette approximately 40 cm across. The inflorescence is purple with white stripes, and is approximately 20 cm long and 15 cm wide.

'Grand Prix' About 40, thin, 1.5 cm wide, green leaves form an open, semi-erect rosette approximately 40 cm across and 20 cm high. The orange-red, cylindrical inflorescence rises well above the plant's leaves,

'Irene' Numerous, 3 cm wide, green leaves form a semi-erect rosette approximately 50 cm across. The purple, open-cylindrical inflorescence, which rises well above the plant's leaves, is about 20 cm long and 10 cm wide. The flowers have white petals.

***lingulata* 'Cardinalis'**. The plant has about 20 leaves forming a relatively "flat" rosette. The leaves are about 5 cm wide. The floral scape raises the star-shaped inflorescence well above the leaves.

The inflorescence is red to orange in colour, about 12 cm wide, and has about 40 tightly packed yellow flowers in the centre.

There is a variegated form of this plant known as 'Broadview'. Each leaf has a creamy stripe or stripes running down its centre. It is a spectacular plant when in flower.

***lingulata* 'Clarity'** (Unreg) About 60 thin leaves, 2.5 cm wide, form an upright rosette. The floral scape raises the round inflorescence well above the leaves. Tightly-packed, white, flowers form an effective contrast with the inflorescence's red bracts.

'Mini Blush' About 30, thin, 2 cm wide,

green leaves form an open, semi-erect rosette approximately 35 cm across, The pink, cylindrical inflorescence rises to a point just above the plant's leaves.

'Orangeade'. This plant has an "erect" growth habit and reaches 50 cm high. The inflorescence starts above the leaves and is about 50 cm long. It looks like an orange "torch" and is about 10 cm wide.

remyi About 10, 3 cm wide, leaves form a flat rosette approximately 15 cm across. The leaves' upper surfaces are green, while the lower surfaces are brown-red.

Its lolly-pink, pendent inflorescence is about 15 cm long and 3 cm wide. Unfortunately, unlike most guzmanias, the infloresence only retains its vivid colour for a fortnight.

'Pink Nova' Numerous, 2 cm wide, leaves form a semi-erect rosette (that "flattens" at flowering) approximately 40 cm across. The green leaves have cream stripes of varying widths. The inflorescence, which rises to the top of the plant's leaves, consists of a cluster of white flowers surrounded by pink bracts.

'Samba'. Similar to' Amaranth' except the inflorescence is yellow in colour.

'Snowball' Numerous, 2 cm wide, pale green leaves form an open, semi-erect rosette approximately 50 cm across. The white, torch-like inflorescence is about 20 cm long and 15 cm wide.

'Torch'. The plant has around 30 semi-erect green leaves. The inflorescence, which looks like a small "Olympic" torch rises above the plants leaves. The top of the "torch" is about 7.5 cm wide, is orange-red in colour and has yellow-petalled flowers.

'Twist' (unreg) Similar to 'Gwendolyn', except the inflorescence is a mixture of white and purple in colour. White is the predominant colour towards the top of the inflorescence.

'Villa' (unreg) Numerous, 1 cm wide, thin leaves form an open, semi-erect rosette approximately 40 cm across. The green leaves, when young, have faint red edging near their base. The 8 cm wide, red-orange, star-shaped inflorescence rises to the top of the plant's leaves.

'White Grape'. Similar to 'Amaranth' except the inflorescence is creamy white in colour.

Large Guzmanias

(Plants are usually more than 50 cm high and wide. Grow in a 150 mm, or larger, pot)

'Alii' Numerous, 2 cm wide, leaves form a semi-erect rosette approximately 60 cm across. The light green leaves have thin, brown-red stripes towards their base. A yellow, cup-shaped inflorescence, approximately 10 cm across, rises well above the plant's leaves.

conifera Numerous, 3 cm wide, green leaves form a semi-erect rosette approximately 80 cm across. The red and orange, cone-shaped inflorescence is 10 to 15 cm long.

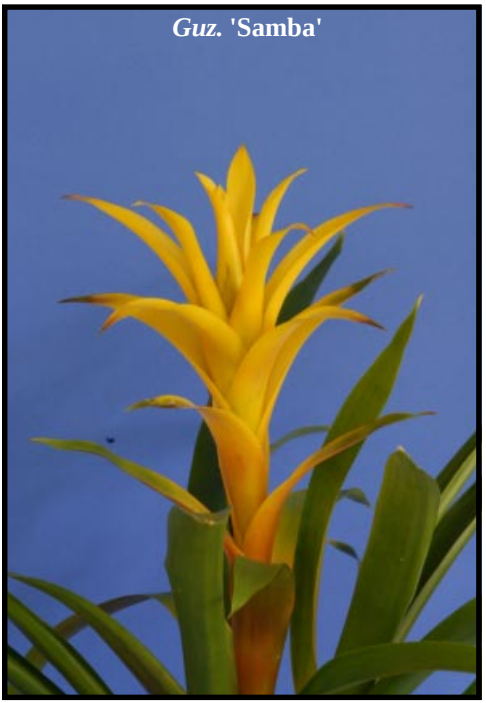
'Denise' About 20 dark green leaves form an open, erect rosette. A torch-like inflorescence, which is pink-red in colour, rises well above the plant's leaves. The inflorescence is about 20 cm across and 35 cm long.

'Ginn' (Unreg) Numerous, 3 cm wide, green leaves form a semi-erect rosette approximately 70 cm across. The pink-red, open-cylindrical inflorescence, which rises well above the plant's leaves, is about 20 cm long and 10 cm wide.

'Gisela' variegated Numerous, 3 cm wide, leaves form a semi-erect rosette approximately 70 cm across. The green leaves have wide, cream, central stripes of varying widths, and are "flushed" purple.

The inflorescence, which rises well above the plant's leaves, consists of a cluster of about 10 yellow "cylinders", each of which


Guz. 'Amethyst'


Guz. 'Samba'


Guz. 'Candy Stripe' (unreg)


Guz. 'Neon'

is about 6 cm long and 2 cm wide. This plant is cold sensitive.

'Gwendolyn' About 30 leaves form an erect rosette approximately 50 cm tall. The pink-purple "torch" rises well above the plant's leaves, and is about 40 cm long and 10 cm wide.

'Kapoha Fire'. Around 20 leaves form an open rosette. The lower surface of the leaves, particularly towards their base, have numerous, thin red stripes. A yellow, "club"-like inflorescence rises well above the leaves on a red-coloured scape. Its inflorescence is about 12 cm wide.

'Lemon Blush'. A larger "version" of 'Orangeade', except the inflorescence is lemon yellow in colour, fading to orange over time.

'Lily' (unreg)About 20, 3 cm wide, green leaves form an open, semi-erect rosette approximately 60 cm across. The white/purple-pink, torch-like, 20 cm long, inflorescence , rises above the plant's leaves.

'Limones' Numerous, 3 cm wide, leaves form an open semi-erect rosette approximately 80 cm across. The light green leaves have numerous, red, thin, stripes towards their base. The inflorescence consists of a cluster of pale yellow bracts.

'Lipstick' About 20, 3 cm wide, leaves form an open, semi-erect rosette approximately 60 cm across. The light green leaves have thin, brown-red stripes, particularly towards their base. The 30 cm long, light pink, open inflorescence is about 20 cm across.

'Lyndal' (unreg)About 30, 4 cm wide, leaves form an open, semi-erect rosette approximately 80 cm across. The dark green leaves have maroon lower surfaces, particularly towards their base. The "thick", 30 cm long and 15 cm wide, inflorescence is pink-red.

'Marina' Numerous, 1.5 cm wide, leaves form an open, semi-erect rosette approximately 60 cm across. The green leaves have central, thin, white stripes of varying widths, and thin, red lines. The plant's centre flushes pink. The red inflorescence is 10 cm wide and shaped like a cup.

'Marjan'. The plant has a yellow-orange inflorescence that rises about 40 cm above its leaves. The flowers have yellow petals.

'Michiel' Numerous, 3 cm wide leaves form an open, semi-erect rosette approximately 80 cm across. The green leaves have red spots and markings towards their base. The light orange, torch-like inflorescence, is about 30cm long and 15 cm wide.

'Neon' About 30, 4 cm wide, green leaves form a semi-erect rosette approximately 60 cm across. The "fluorescent" light red inflorescence is about 25 cm long and 15 cm wide

'Ostara' About 20 green leaves, form an open rosette. The plant has a torch-like inflorescence, red-orange in colour, which rises about 40 cm above the plant's leaves

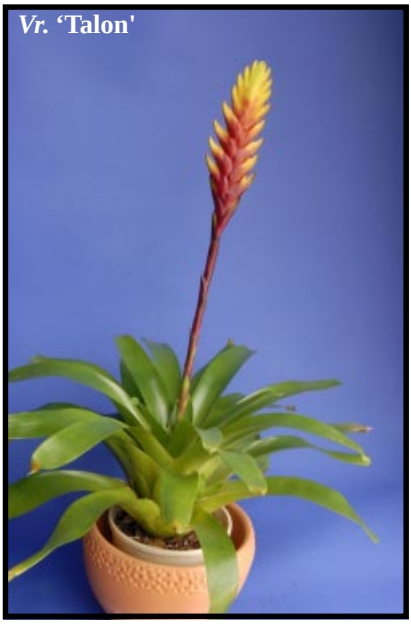
Each of the 20 or so leaves is 50mm wide and forms a loosely arching rosette about 70 cm high and wide. The torch-like inflorescence rises above the leaves and is about 50 cm long and 10 cm wide. It is orange in colour..

peacockii x danielli. This plant can be grown in well-protected, shady areas of the garden as well as in a shadehouse. The leaves are thicker than is the case for the "typical" guzmania, and are red underneath.

'Puna Gold' Numerous, 2 cm wide, pale green leaves form an open, semi-erect rosette approximately 60 cm across. The yellow, cup-like inflorescence is about 10 cm long and 8 cm wide.

'Rana' variegated Numerous, 4 cm wide, leaves form a semi-erect rosette approximately 80 cm across. The green leaves have central, cream stripes of varying widths,

The inflorescence rises above the plant's leaves. It has an open-cylindrical shape. The


Vr. 'Talon'


Vr. 'Purple Haze'


Vr.. 'Sunshine Fl


Vr. 'Megan'

ame' x *Pinoltii*

Vr. inflata (select clone)

Vr. ' Negro'

Vr. fosteriana 'White Lighting'

pink-red bracts have faint, cream stripes of varying widths.

'Red Parrot' Numerous, 5 cm wide, leaves form a semi-erect rosette approximately 80 cm across. The leaves' upper surfaces are olive-green, while the lower surfaces are light purple.

The inflorescence consists of over 15 "clusters" of flowers spread along a 60 cm long "stalk" (scape). The clusters look like red "parrot beaks".

'Red Star'. The 20 or so leaves form a relatively flat rosette about 70 cm wide and 50 cm high. The leaves are about 5 cm wide. The inflorescence rises above the leaves and is a red "torch" which fades to pink over time. It is about 40 cm high and 15 cm wide.

sanguinea Typically, about 15, 5 cm wide, leaves form a flat rosette approximately 60 cm across. At flowering, the leaves can become completely red, yellow, a combination of red and yellow, or a red/yellow/green combination. The leaf colouration is retained for several months.

While a "background" plant for most of the year, it wins many admirers when it comes into flower.

'Salsa' Numerous, 3 cm wide, green leaves form a semi-erect rosette approximately 70 cm across. The white, open-cylindrical inflorescence, which rises well above the plant's leaves, is about 25 cm long and 15 cm wide. The flowers have white petals.

'Super Puna Gold' The plant is similar to 'Puna Gold', except that the inflorescence is about twice as large.

'Symphonie'. The 30 leaves are about 5 cm wide and form a loosely arching rosette. The light green leaves have a large number of markings which look like thin red pencil lines.

They make the leaves appear as if they are "flushed" with red. The cup-like inflorescence rises above the leaves and is about 10 cm wide. It is light red in colour.

'Tutti Frutti' Numerous, 4 cm wide, green leaves form a semi-erect rosette approximately 80 cm across. The infloresence, which is level with the top of the plant's leaves, consists of a yellow-orange, "elongated", star-shaped rosette about 20 cm long and wide.

'Watermelon'. A somewhat larger version of 'Orangeade', except the inflorescence is coloured "watermelon pink".

INTEGRATED PEST MANAGEMENT: THE KEY TO HEALTHY BROMELIADS

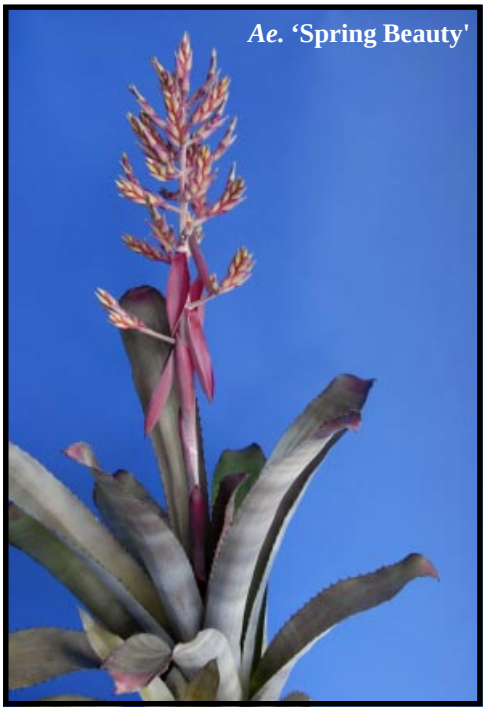
(by Tom Koerber)

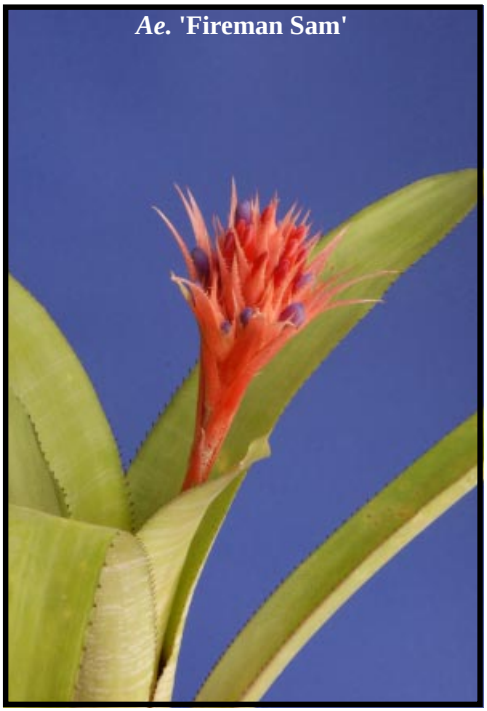
Reproduced, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, January-February 1995, v. 45 (1), pp 6-14. Note that the original article's text on the "Evil Weevil" (Metamasuis callizona) has largely been omitted, as this pest, while prevalent in parts of the Americas, is not found in Australia. Nor has the material on treating wild-collected plants been included. The photos accompanying the original text have also not been included because of the difficulty in reproducing them. Imperial measurements contained in the original text have been converted into their metric equivalents. The article describes insecticides etc available in the United States of America in 1995. Many of these are not available in Australia, but effective alternatives can be found—experienced bromeliad growers are often a good source for such advice, as are articles in Bromeliaceae.

Bromeliads have fewer pest problems than most plants you could grow, but if you have very many for a long time, then you will


Ae. 'Pacifica'


Ae. fasciata


Ae. 'Spring Beauty'


Ae. 'Fireman Sam'

find they are not entirely pest free. A pest is an organism that interferes with your objectives. Integrated pest management is the use of a combination of measures to minimize the effects of pests. To use integrated pest management, you should define your objectives, identify the pests that will interfere with them and identify the pest control methods that might be effective.

If your objective is to win the top awards at the next world conference, you will have a much lower tolerance for pest activities than someone who includes bromeliads in his or her garden. Your objective will determine which creatures are defined as pests and the intensity of pest control efforts.

The first line of defense is physical barriers between your plants and the pests. If your plants are in an enclosed environment such as a greenhouse, some attention to design and construction details will prevent a lot of pest problems. Caulking the joint between the foundation and the wall, weather stripping and a rubber threshold seal around the door, and screening over vent openings will keep out a lot of unwelcome creatures. My greenhouse vents have an outer screen of 12.5 mm galvanized steel mesh and an inner screen of 1.5 mm copper mesh. The outer screen excludes the local raccoon and rodent populations, and the inner keeps out snails, slugs and most insects. The door is kept closed and locked to keep out pets and grandchildren.

Sanitation is the next line of defense. I have found a garbage can to be a very effective pest management tool. I t works best when used in combination with a sharp eye and a hard heart. Often the best thing to do with an insect-damaged plant is to throw it out. …Bromeliads should be "groomed' regularly and any leaves that are removed or trimmed should be placed immediately in the garbage can. This action deprives pests of hiding places and makes detection much easier.

Consider that every plant you have has a limited useful life. Everyone seems to have a favorite plant. Perhaps you paid a lot of money for it at the rare plant auction or perhaps it won best of show; inevitably the day will come though when it is an old plant. It will never win another ribbon but perhaps it has enough life to produce a few more pups. Now think of your objective. If it is to produce the maximum number of offsets, by all means keep the plant, but don't put it under the bench or in some out-of-the-way place where in its weakened condition it will become a breeding ground for pests. Keep it in a prominent place, inspect it often, and give it the best of care. Otherwise, deposit in the garbage can with proper ceremony befitting its status as a favorite plant.

Another useful strategy is to enlist a little help from your friends. These include birds, lizards, salamanders, frogs, and predatory insects. In an outdoor situation, provide nesting opportunities for birds, a water source for frogs and salamanders, and a wide selection of flowering plants to sustain predatory insect populations that will make life harder and shorter for pest species.

A few lizards, frogs, and salamanders will play the same role when added to a greenhouse. I especially like tree frogs. They are expert climbers, even able to run up and off walls. During the day, they hide in the water-filled centers of tank-type bromeliads, emerging at night to ambush any insects that find their way in. Toads and salamanders are among the few predators that will eat snails and slugs. Several types of predatory insects are now commercially available from garden supply dealers. These include ladybird beetles, lacewing flies, and mantids. Any of these can be added to either your garden or greenhouse.

Most bromeliad growers find that the judicious use of chemical pesticides is the best way to control pests that slip through other defenses. A comprehensive arsenal of chemical weapons would include: a systemic insecticide e.g acephate or dimethoate; a fast acting contact insecticide e.g malathion or pyrethrins, to kill flying and crawling insects in exposed locations; a mollusicide, e.g. metaldehyde, to kill snails and slugs; a fungicide, e.g. benomyl or captan to protect seedlings and newly separated pups from fungus infections.

To make sense out of the bewildering array of pesticide products in your local garden supply store you must read the fine print on the labels. This will include the chemical name of the active ingredients, a list of pests controlled, directions for use, and a precautionary statement describing any hazards associated with use. Most pesticides are available as concentrated powders or liquid formulations that you must mix according to directions for their use, and as ready-mixed sprays and bait formulations that are ready to use. The ready-mixed products are expensive, but may be worth the convenience of instant treatment as soon as a pest problem is spotted rather than hypothetically mixing up a batch of spray as soon as you have time. If you are a champion procrastinator, as I am, you will save time now and avoid a bigger pest problem later.

Chemical pesticides are most effective when used to prevent problems rather than to cure them. Newly acquired plants should be sprayed or dipped in systemic insecticide before being added to your collection. This precaution will eliminate any concealed pests before they have a chance to multiply and spread to the rest of your plants. …Adding a fungicide to the growing medium before the seeds are planted is more effective than trying to save seedlings after they are infected.

The most commonly encountered pests on bromeliads are scale insects. The adult scale insects are immobile, pinhead-size, sucking insects that feed on the foliage of bromeliads. A female scale will produce up to a hundred eggs packed into the space under her body. The eggs hatch into tiny aphid-like crawlers that are very mobile. They move readily from plant to plant. They may hitchhike on your hands or clothing and may even be wind-borne. Once established on a plant, they lose their legs, insert their sucking mouthparts into the leaf tissues and grow a protective shell over their bodies. They inject digestive enzymes into the leaf tissue, destroying the pigments and causing a white spot to appear around each insect. The plant is not able to replace the lost pigment and the spot remains for the life of the leaf.

If you have a few scales on a small number of plants, they may be killed by touching each one with a swab dipped in insecticide or rubbing alcohol. DO NOT SCRAPE THEM OFF! While scraping will kill the scale insects, it will disperse any eggs present and the crawlers produced will reinfest your plants. If you have a heavy infestation, or a lot of infested plants, it's time to remember your objective. The spots on the leaves will never go away. A spray or dip in systemic insecticide is a practical treatment for large numbers of plants and the garbage can option should certainly be considered.

Several species of mealybugs are also prevalent pests on bromeliads. These are sucking insects that live in concealed locations between leaf bases and under stem and flower bracts. They secrete a white, waxy powder that readily comes off their bodies. The little tufts or granules of white powders on leaves and stems are often the first clue to their presence. The life cycle is similar to that of scale insects except that the adults have three pairs of legs and can crawl slowly. They

also inject digestive enzymes in the feeding process. This kills little patches of plant tissues leaving black spots. The same treatments used against scale insects are effective against mealybugs….

…There are a great many insect species that are not specific bromeliad pests, but will feed on them if they have a chance. These include leafhoppers, crickets, earwigs, and sowbugs. It is virtually impossible to keep outdoor bromeliads free from these opportunistic pests…A periodic spray with contact insecticides will hold these pests in check. A review of your objective may be in order before setting out to eradicate these minor pests.

Bromeliad plants provide an especially favourable environment for snails and slugs. The water-holding bases of the tank-type bromeliads provide the exact kind of concealed wet place they like to call home. They range out from their hiding places at night to feed on young leaves and flowers, especially the anthers. Seedlings are a special delicacy and they will graze on the trichomes of gray-leaved tillandsias leaving characteristic bare strips on the leaves.

Adult snails and slugs deposit their eggs in loose soil or under debris on the ground. The spherical, pearly white eggs stick together in clusters. Metaldehyde, in the form of granular bait is the usual control method. A periodic midnight inspection of your plants with a flashlight is a good practice. Some growers find the crunch of a snail under foot a very pleasing sound.

Spiders are a special case. They do not feed on plants but, rather, prey on insects that might do so. Unfortunately, their webs catch dust and debris and are difficult to clean off, especially from some tillandsia species (see photograph on p.WW—the one you took on Good Friday 2006). I find it nearly impossible to keep them off bromeliads growing outdoors. Rather than trying to rid all my plants of spider webs, I identify individual plants that are flower show candidates and selectively assassinate individual spiders that settle on the wrong plant with a quick shot of pyrethrins.

Integrating pesticide applications with the use of natural predators may present a problem for your bug-eating friends. Infested plants can be moved elsewhere to be treated, and then returned after a few days. Alternatively, you may want to move your favorite frogs, lizards, etc to a terrarium for a few days. Theoretically, pesticide treatments will eliminate all insects, and predators will starve. In my experience to date, having so few insects that a frog can't find lunch is still a dream.

DOES YOUR POTTING MIXTURE BREATHE?

(by Herb Plever)

Editorial comment (Bob Reilly): Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society International, July-August 1986, v. XXXVI (4), pp.178-179. Herb Plever grows his bromeliads inside an apartment in New York, so his observations about useful potting mixtures for this situation are especially worth considering if you grow bromeliads indoors. However, some of his points are relevant to everyone.

It is no secret that epiphytes such as bromeliads need an aerated, friable, quick-draining mix. We've been preaching this sermon for over 20 years. The problem has been to find the right proportion of acidic ingredients that will remain aerated and quick-draining over the life of the plants for two to three years.

When we first started growing bromeliads indoors, we used a mixture of 0.5 parts German peat moss and the balance of approximately equal parts of fir or redwood

Ae. coelestis var. albomarginata

Ae. 'True Blue' (unreg)

Ae. distichantha

Ae. phanerophlebia x chantinii

bark chips and/or perlite and/or shredded tree fern. German peat is very fibrous and does not break down in the pot even after two to three years. This mix worked well, but after some years German peat became unavailable, and we had to switch to Canadian peat moss. (Michigan peat is too powdery).

However, Canadian peat is really not very fibrous and after one to two years it would break down and pack down. What may have started as a porous, well-draining mix with 50 percent Canadian peat became a densely packed, ever-soggy mix that did not breathe and which choked the oxygen loving roots. The water would stay on top for one half minute or more before draining down, and lower leaves were constantly browning off.

It is not the wetness but the lack of aeration, which is critical. We know from our own experiments and the current *(1986)* articles in the *Journal* on hydroponics that you can grow bromeliads in water. But bromels develop a different type of root when grown in water than they do in a pot. The pot roots need aeration. If they are choked by a dense, wet medium they tend to rot, especially if it is cold. Under such conditions, fungus can readily take hold and invade the roots and lower leaves.

I therefore reduced the proportion of peat moss in my mix to 40 percent, but even then the mix did not drain fast enough. I now have the peat reduced to 35 percent.

You may well ask: "If peat moss presents such a problem, why use it at all? Why not use a typical orchid mix of mostly redwood chips and some shredded tree fern?"

And, in fact, some of our members do use an orchid mix to pot their bromels, but they are mostly greenhouse growers. In the greenhouse, a high amount of humidity and water is constantly available, so a bromel in a predominantly bark mix will still not dry out, and the mix will still be damp enough to promote root growth.

For indoor growers, however, the typical orchid mix will not promote good root growth unless you mist every plant once or twice a day or water more frequently than our usual once a week. To enhance quick root development of pups, you can wrap a small amount of sphagnum moss around the base of the offset. The spaghnum won't dry out as fast as the mix.

I have recently added cork bits and cork nuggets to my mix with very favorable results thus far. These materials will have to be evaluated over two or three years of use, but they hold great promise as a natural, clean, potting material. The cork bits are like coarse sawdust and can replace part of the peat moss. The cork nuggets are 0.25 inch pellets and can replace part or all of the shredded tree fern (it is expensive and hard to find) and/or the perlite (which I don't like to use). The cork can be purchased from the Maryland Cork Co. (see the ad in the *Journal*).

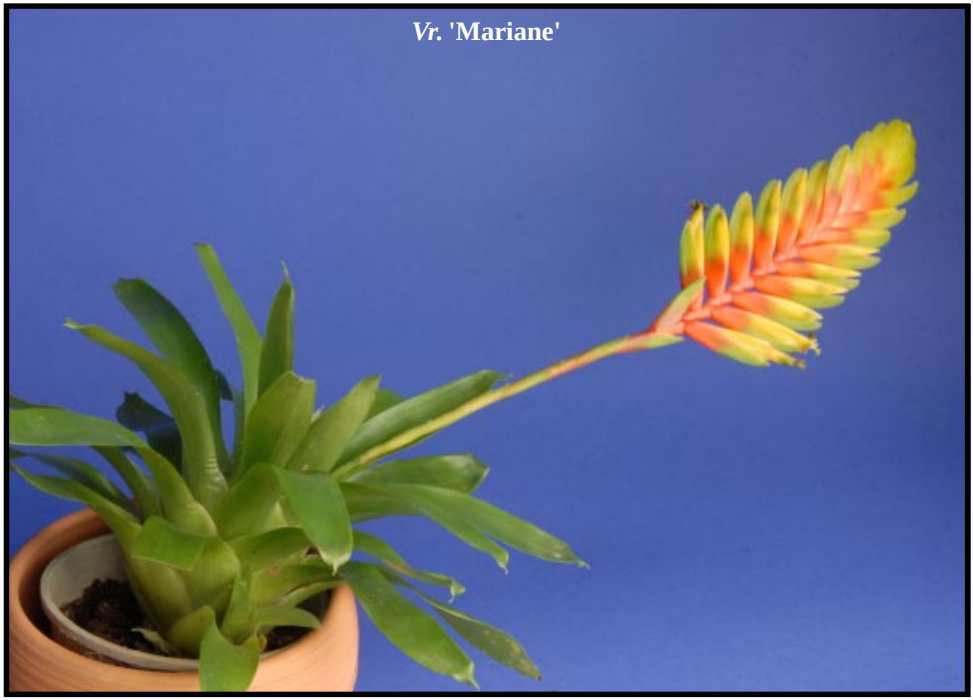
The last batch of mix I prepared had the following ingredients: 35% Canadian peat moss, 10% cork bits, 15% cork nuggets, 15% redwood chips, 15% perlite, and 10% shredded tree fern.

Even with this really quick draining mix you still have to be on guard. I make a big batch of mix on my terrace and store it there in a 4 cubic foot, heavy plastic sack. I fill up a small, plastic garbage container with the mix which I keep inside the apartment. I notice that as I use the mix, the finer parts of the peat moss filter through the friable material down to the bottom of the container. The mix near the bottom must therefore, be coarsened with more drainage material or you will run into problems in a year or two.

I have a few plants which have been in their pots with my older mix for about three years and have still not flowered. These plants all demonstrated a choked root condition and

Vr. fenestralis x Poelmanii

Vr. **‘Jeannie’s Feather’**



Vr. **'Mariane'**

were slowly browning off their lower leaves. I broke them out of their pots, trimmed the soggy roots which I sprayed with Physan 20 as a fungicide, and repotted them in my new, more porous mix. Once the plants could breathe, the improvement was almost instantaneous.

So if any of your plants are exhibiting signs of gasping for air, break them out of their pots, discard the heavy medium and repot them in a quick-draining medium that breathes.

Neoregelia lilliputiana

Author: Derek Butcher

This all started with a dispute as to what this species looks like at a recent Australian Bromeliad Society Show in Sydney but Ken Woods wanted to seek clarification. It is a good job he did because we have loads of information for you to digest.

First, most of us think we know what this species looks like. It was first described in 1974 by Pereira and I wonder how many of you have checked your plant against the description - especially length of petal. To my mind it is a small form of *Neoregelia ampullacea* and if you compare the description of both species there is very little difference. Remember that *N. ampullacea* was described by Morren in 1885 and nobody knew where it actually came from. Subsequent findings up to 1960 consolidated the opinion of Lyman Smith as to its description given in Flora Neotropica in 1979. Plants collected since that date have also been allocated this name without amending Smith's description. So it is a difficult area to be dogmatic in.

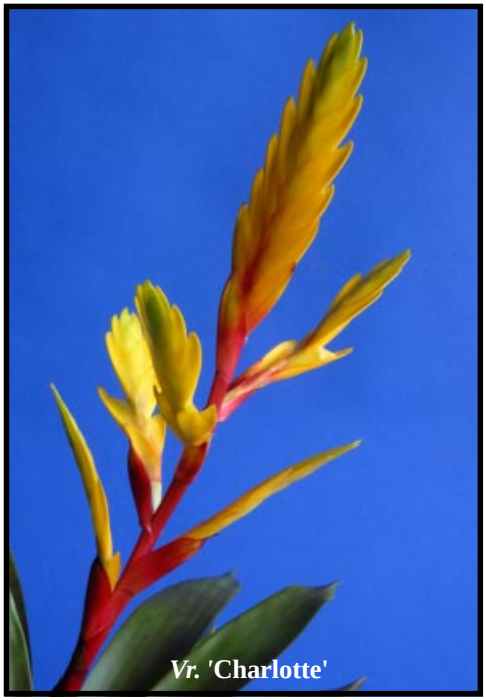
Was the plant concerned the hybrid *Neoregelia* 'Lillipet'? This was alleged to be a hybrid between *ampullacea* and *lilliputiana* but a quick check of the cultivar Register shows 'Lillipet' having a reddish look about it suggesting another parent was involved somewhere. Ken decided to bite the bullet and contact Grace Goode who was the hybridist. Grace pointed out she had crossed a *N. punctatissima* with *lilliputiana* to get 'Night Spot'. A quick check of the Cultivar Register will show a plant looking more like an *N. ampullacea* than the small *N. lilliputiana*. Here I must add that the *N. punctatissima* has been misidentified for years and is really yet another form of *N. ampullacea*. This is now covered in the Cultivar Register by using the name *Neoregelia* 'Punctate'. Ken also found out that the parents of *N.* 'Lillipet' are *N. lilliputiana* x 'Rose Marie' and not *lilliputiana* x 'Strawberry Cup' as advised to the Registrar in 1994. This small correction is easily made. However there is a sister to 'Lillipet' namely 'Lullaby' that is out there somewhere and if anyone has this plant I would love to get a photo for the records.

There is a similar problem with 'Night Spot' which has a sister called 'Flare Up' and if anyone has this plant the same plea applies.

Is there a moral to this story? To my mind, if in doubt regarding identification of a species contact me and I will send the description. If a hybrid, check the Cultivar Register on http://fcbs.org or Cultivar Corner on http://BSI.org and look at photos. If you do not have Internet access ask someone who has.

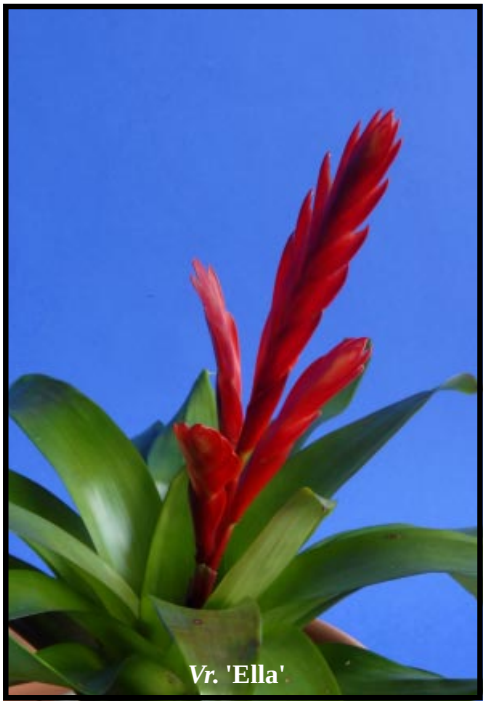
Society Bus Trip - Field Day
9th September 2006

Bruce Dunston's Place 9-11 AM and a visit to Mike Synmons, 17 Moore Rd. Burpengary. Bring your own lunch. Bus leaves Uniting Church Hall, 52 Merthyr Rd., New Farm, 7.30 AM then to pick-up at Woolworth Shopping Centre, Gympie Rd., Chermside - Cost $6.00



Vr. 'Charlotte'

Vr. bleherae



Vr. 'Ella'

Guz. remyi

Neoregelia 'NANCY DEE'

Author: John Higgins

The neoregelia hybrid in the photo was produced by Ivan and Dawn Hole of Toowoomba and named in honour of well known Society member Nancy Kickbusch. The plant is a hybrid of *N.* 'QUINTESSENCE' (see note below) and the seed was planted in 1999. From the seedlings raised only three plants were retained, one of which is *N.* 'NANCY DEE'. As can be seen in the photo and as expected from its lineage this is a large well shaped plant with a large colourful centre.

This honour for Nancy is well deserved. Nancy joined the Society in 1978 and she has given faithful service since that time in several different roles. Until recently she was the Chief Sales Steward for the Society and managed all sales activities at our monthly meetings, field days, shows and sales days. In recent times Nancy has retired as sales steward at the monthly meetings but has continued as sales steward for the Combined Show, the Spring Show, the Royal Horticultural Society Show and the Queensland Council of Garden Clubs Show. Nancy organized the sales area at the combined show since its inception in 1978 until the last show in 2005. Nancy has also served as field day organizer and bus trip organizer. The trips organized by Nancy all ran smoothly and were notable for their variety. As well as visiting remote collections there were mystery tours and sight seeing opportunities. Whenever and wherever she can, Nancy has always been ready to serve the Society for the benefit of all.

I am sure that all members will be pleased that Nancy has been honoured by Dawn and Ivan in the naming of this beautiful hybrid.

(Note: The Bromeliad Cultivar Registry, 1998, lists *N.* 'QUINTESSENCE' as a hybrid of *N. concentrica* 'BIG BLUE' x *N. coriacea* 'KENTS BEST'.)

SEED BANK RULES

Only financial members of the Bromeliad Society of Queensland Inc. can obtain seed from the seedbank unless they are exchanging seed with it.

For 2006 at least, no charge will be made for seed, but you need to include a stamped SAE with your order.

Because of the large demand for seed, each member can only obtain a maximum of 2 packets of seed of any particular bromeliad, and 5 packets in total, for any given month.

Donations of seed are always sought, including for those bromeliads already in stock. The seed bank will exchange 2 small packets of seed for 1 large packet of your seed. Please label the seed parent's name on the outside of the packet, as well as the date on which it was harvested. Seed of hybrids as well as species is sought.

Each person who donates seed, or supplies it on an exchange basis, will go into the draw for a framed, large colour photograph of a bromeliad. The photograph will be chosen by the editor of Bromeliaceae who will also arrange for the photograph to be framed and delivered by courier to the winner.

Every donation or seed exchange, will give you another chance of winning the photograph, so send in lots of seed! One photograph will be awarded each year, with the lucky winner being drawn at the Society's Christmas party, but you do not need to be present to win.

Inquiries to :- Doug Parkinson, 51-53 Analie Street, Ningi 4511. Phone 07 5497 5220 or E-mail seedbank@westnet.com.au

Neo ‘Nancy Kickbusch’

Joe Green's Tree

Neos on display in ‘The Olive Branch’ sales area

A Small Source of Water

Author: Ross Stenhouse

At the June meeting of the society, member Peter Paroz and I were talking about the likely effects of the recently introduced level three water restrictions. We were discussing the likely alternate sources of water for watering plants. During the course of the conversation, the subject of air conditioners came up.

Many room air-conditioners seem con constantly drip pure water from the rear during their operation as moisture is condensed from the air. We felt it would be a good idea to pipe this water into a small tank for later use in watering plants. I am not sure of the volume of water comes out of a average air conditioner, however I am sure it would add up to many tens of litres during a week of operation.

While we were on the subject of heat pumps (air conditioners being an example), we thought of other heat pumps that are in a house, the refrigerator is yet another example. Many have a catch-tray built in the base that catches the water and it evaporates from that tray. We felt that manufacturers should bring out a design that catches this source of water and should provide a drain outlet to allow it too to be directed into a water tank. The water from these devices is not grey water, it is pure water, and likely to be of a higher purity that rain water off a roof. Certainly fit to use in other household devices such as steam irons.

The fact that we waste these sources of water is a good example of the waste that our society has built into its products. Over the effective life of these heat pumps, they would provide tens of thousands of litres of water, all readily available with just minor design changes to these products.

Vale Patricia O'Dea

by Peter Paroz and John Higgins

It is with deep regret that we record the passing of Patricia O'Dea , an original and life member of the Society who passed away peacefully at Mt. Olivet hospital on Thursday, 1st June.

Her contributions to the Society are best summed up in the citation for her Life Membership of 21st February 2002; "Since 1972, Patricia has served this Society in many capacities, including President, Secretary, Judge, Chief Steward, Competition Steward, and for many years Committee Member. She has also served as Secretary and Committee Member of the Combined Show Committee and was for many years the Society's Information Steward at the Combined Show. In all of these activities, Patricia has been motivated by her love of bromeliads and the Society; and continues to serve as one of the Society's most enthusiastic promoters ."

Patricia's horticultural pursuits were very wide with interests in bonsai, camellias, native plants and potted plants to name just a few; in addition to bromeliads which were her favorites.

Patricia was an enthusiastic and active supporter of the organizations of which she was a member; making significant contributions to the Royal Horticultural Society of Queensland over many years before failing health restricted her active participation.

Patricia's enthusiasm for the plants she grew and her breezy and enthusiastic presentation made her a popular speaker at specialist horticultural Societies and Garden Clubs.

The horticultural fraternity of Queensland is much the poorer in her passing,

Farewell good friend.

Patricia O'Dea

Neoregelia 'Night Spot'

Neoregelia 'Strawberry Cup'

MAKING AN INFLORESENCE LAST

(by W. B. Charley)

Editorial comment ***(Bob Reilly) Reprinted, with permission of the Bromeliad Society International, from the <u>The Bromeliad Society Bulletin</u>, March-April 1965, v.XV (2), p.39. The article's author was one of Australia's pioneer bromeliad growers.***

Take an *Aechmes fasciata* with the spike just emerging and place the plant in hot, dry conditions. The spike could last two months and dry off, but still remain pink. Take another of the same into cool, shady, damp conditions, and it will last twelve months in full colour, after which it will brown off and lose all colour.

This applies to all bromeliad spikes. The life of the infloresence is in your hands. Give the plant plenty of heat, humidity, water and food for producing the first sign of the spike; then slow down maturity by cooling off.

A. fasciata *and* A. bracteata *will stay in full head* (colour-Bob Reilly) *for a year.* A. mexicana *and* A. ludemaniana *for half that time*. Tillandsia flabellata *and* Portea petropolitana *var.* extensa *will last in colour for six months, or their colour can be reduced to a few brief weeks.*

The spike of a healthy, well-nourished plant will, of course, last much longer than a sickly one, because Nature can work longer to mature the fruit or seed and oin so doing, the seed is more likely to be fertile

View a Member's Garden

- Paul and Jane Blundell

Kurwongbah Ph. 3285 3625
See many thousands of Bromeliads
(Wrong phone number published last edition)

Sunshine Coast Bromeliad Spectular

29th-30th April 2006
Author: Beryl Batchelor.

The show was held in the Millwell Road Community Centre, Maroocydore, which is the same venue used for the Club's meetings. As usual it was a spectacular display of many rare and beautiful Bromeliads many of which are on a lot of peoples wish list

(including mine)

There was the large entry display consisting of Alcantereas, Blanchetianas, lots of colored Neoregelias, and many more.

There was a separate display of Billbergias which was really beautiful and a separate display of Crypthanthus and Orthophytums. This display had a very lovely background of a desert painting depicting the type of country these special little plants would be happy in. I would assume it was the work of Mr Bob Paulsen arranging this display as I call him affectionately the " Cryptanthus King".

The show was a great success as there was plenty of room for people to move through the isles of sales plants and the big marquee which was set up in the back grounds area of the hall served as a double for refreshments and also for people to sit and listen to the speakers.

This is a part of the show which I feel is a great inspiration for would-be members and it gives people the help to grow bromeliads successfully. It doesn't matter how many times you hear these experts talk you always learn something. The Committee and all participating members should feel very proud of their 2006 "Bromeliad Show".

Sunshine Coast Bromeliad Spectacular

What Goes On Inside a Bromeliad's Leaf?

Author: Rob Smythe MSc

In the March /April 2006 edition of Bromeliaceae I found I had been delving into some pseudo-science. Reading it again a few months on I thought two things:

1) Who will understand the technical material?

2) My friend in Woy Woy who is both a brom grower and a retired 'Kinetics' lecturer, would be mumbling under his breath, "Rob you are prostituting my profession". Not that I have anything against prostitutes. As a kid I delivered papers in a red light area in Brisbane. Their tips were by far the best. Now don't read anything into that other than shillings and pence, as it was in those days.

After this second reading of my article, which is a rare occurrence for me, I found an inspirational light glowing in my brain. It was an analogy that I could use to explain the events involved with photosynthesis in a CAM plant like a bromeliad. CAM just means the plant takes up (stomata open) carbon dioxide (CO_2) during the night and converts it to simple chemicals then waits for the morning light (stomata closed) to stimulate the production of complex molecules like the sugar you put in the your tea.

The analogy is a large theatre full of night theatre goers. The theatre has a very small door leading to the vestibule. The theatre is to represent the vacuole which is the large chambers in the cells of plants which stores quantities of chemicals.

The people represent the chemicals building up during the night. They stream slowly into the theatre at night filling it up. These were conceived by absorption of CO_2. That's the chemical not the people. People were more than likely conceived by the absorption of alcohol during the night. Could not resist that one liner.

The vestibule is to represent the area of the cell where light impacts causing photosynthesis. The taxis represent photons of light and CO_2 coming into the cell and vehicles for carrying away the products formed. To represent the analogy correctly we should have three different taxi services. One bringing in photons (packages) of light, another bringing in CO_2 and a third taking away manufacture chemicals. 'Three taxi services!!,' you say.

[Most readers live in Brisbane. Ever tried contacting a single taxi service at 4.30pm on a rainy Friday afternoon in Brisbane? Don't know why I am telling you this but one day I was surprised when one arrived at 4.35 pm. I said, ' You were quick!'. 'Not really,' he said, 'I'm the 3.30 pm taxi, guess they have gone, hop in'.]

Continuing:

Morning is approaching, people are trying to get out of the theatre through the small door but the vestibule is jammed full. A single taxi fills up quickly. Word is out of this big queue so taxis arrive closer and closer together (light increasing). Taxis only had 30seconds to move or they got a ticket (back to the real world for an instant). With ever increasing taxis arriving (increasing light) the crush in the vestibule reduced until taxis were leaving less than full.(photosynthesis efficiency greater in low light than high light hence non linearity in my previous article's calculation). Eventually the vestibule was nearly cleared but there was a big bank up of people inside the theatre trying to get through the small door and taxis were picking them up at a steady rate, though leaving partly empty. Sending more taxis (increasing light intensity) is useless as people can be moved only as fast as they can move through the

small door (light saturation: once the rate of formation of chemicals reaches optimum production rate increasing light does nothing extra and so is wasted). In my previous article I went further than the data covered and, using another piece of data which could relate to light saturation, I suggested it would take 7 hours to clear away all the products of the night. Thus our proposed theatre analogy would be that because of the extremely small door the theatre would be cleared in about 7 hours.

The patrons complain that after this long dusk to dawn performance they don't get home till after lunch. Management never listen!

This covers everything except for a small steady trickle of people arriving for the next show ($C0_2$ passing, with difficulty into cells via closed stomata). This doesn't present a problem unless you are a chemist and you are trying to make a mathematical model for this whole process.

CAM METABOLISM

(by Bob Heer and Tom Montgomery)

Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, September-October 1987, v.XXXVII (5), P. 225.

As a layman, I can only touch on a complex and complicated evolutionary metabolic advice. First, C.A.M. stands for crassulacean acid metabolism. It deals with photosynthesis as an adaptation of the metabolism of certain dry-growing plants, and was first studied in the *Brassulaceae,* the botanical name of the Orpine family.

Most of us plant lovers learned at an early age that green plants use the energy of light during the day to combine, through something called photosynthesis, carbon dioxide and water to form carbohydrates and release oxygen to refresh the air. Most of us did not know that some plants utilize one of two other methods of chemical manufacturing to arrive at a similar result. One of these we are not concerned with, but the C.A.M. metabolism is utilized by *Dyckia* in rhe *Pitcairnioideae* subfamily, *Guzmania* and *Tillandsia* in the *Tillandsioideae* subfamily and most, if not all, of the *Bromelioideae* subfamily.

Oversimplifying the situation, C.A.M. deals with an attempt by the plant to conserve moisture. Closing the stoma cells (pores) during the day reduces transpiration (water loss) to a minimum; this process also interferes with gas exchange. By opening the stoma at night when atmospheric water vapor pressure demand is lower, carbon dioxide diffuses into the leaves and forms the organic malic acid that requires far less energy consumption than photosynthesis that produces carbohydrates.

When daylight comes, the stoma close and when light becomes intense enough, the malic acid releases the carbon dioxide internally in the leaf and provides enough carbon dioxide for true photosynthesis to occur. A sharp differentiation between day and night temperatures seems beneficial to this process. For more accurate and detailed information please refer to: *The Biology of the Bromeliads* (1980) by David H. Benzing, pp 103-128.

Back Issues of Bromeliaceae

Don't forget that if you are after back issues of this journal, the library has a number of back issues for sale. For issues of Bromeliaceae produced since the beginning of 2005, an alternate source is the society web site. PDF's of each issue are placed on the site and currently are resulting in about 600 downloads a month. More copies are downloaded via the web than are printed each issue.

Letters to the Editor

Dear Editor

Perhaps you would like to put these points for comment.

1) The Cultivar Register refers to *Neoregelia* 'Enchantment' as having two distinct forms, one variegated and one marginated. As very different 'sports' from the one parent surely they should have different names. They are being sold (and written about in Bromeliaceae) as *Neoregelia* 'Enchantment variegata' and as *Neoregelia* 'Enchantment Albo-marginated' however Latin or Latin-like names have been disallowed since 1959. The variegated form is, I think, more widely distributed so perhaps it should remain as *Neoregelia* 'Enchantment' and I doubt Bob Larnach would appreciate 'Disenchantment' so the other could be something like 'Enchantment Brother'.

2) The use of double quotation marks is a trend that has crept into Bromeliaceae. eg *Neoregelia* 'Ausie Dream' "April"

Neoregelia 'Aussie Dream' "Superba" (Latinised?)

Neoregelia 'Victoria' "Pink"

Billbergia 'Doreen Johnson' "Delight"

Are we being told these are cultivars of cultivars? Since when has this been acceptable. Neither grex names or quotation marks are allowed in ICNCP rules.

3) To revisit an old controversy. The dropping of the species name of species cultivars. For instance, in the April/May 2006 edition of Bromeliaceae, we have *Billbergia* 'Ralph Graham French' rather than *Billbergia vittata* 'Ralph Graham French'. I know that Derek Butcher is in favour of dropping the species name, but surely the number of species in a bromeliad collection is, to a large extent, indicative of the value of that collection.

Also the ICNCP states:

Article 17: Names and epithets of cultivars

17.1 The full name of a cultivar is the accepted botanical name in Latin form of the taxon to which it is assigned, followed by the cultivar epithet.

You may think all this is nit-picking and I readily admit that there are many plants in my collection that are incorrectly labelled, but surely when we go to print, we must make every effort to be correct.

Yours sincerely

Mike Symmons.

I think you have raised a number of very interesting points and I will leave it to the experts to comment, however I will make the point that mislabelling of actual plants causes more problems than the errors in print. Mislabelled plants end up spawning a line of mislabelled plants. Ed.

Remembrance - Bert and Ruth Wilson

Author: Doug Upton

Bert and Ruth Wilson were keen gardeners, and while they cultivated both orchids and bromeliads at their Indooroopilly home, it was not until the early seventies they joined the Bromeliad Society of Queensland. Orchids remained Bert's first horticultural love but bromeliads captured Ruth.

Ruth could not be denied, and as the bromeliad collection increased, suitable growing space became a problem. Both agreed that they never would stop cultivating orchids, however, sometime later the encroaching bromeliad collection would somewhat diminish the orchid collection. Bert and Ruth were active Society members always pursuing the promotion of good fellowship

amongst members. Following endorsement by the Management Committee, the General Meeting elected Bert and Ruth to Life Membership.

For several years they managed the catering for various bromeliad shows and functions. They opened their home and organised a garden party for the Societies tenth anniversary celebrations. The anniversary cake, the highlight of the afternoon, was shaped and decorated to resemble a mature *Nidularium innocenti*.

Bert was given a float of $200 for the purchase of name tags, pots, pot holder etc. for resale to members at monthly meetings. With a very modest mark-up, Bert managed to return a profit of $2,000 for three years of trading - quite an amount of money back then.

The 1974 flood took a terrible toll, their Indooroopilly home was completely flooded. Along with many home possessions, their beautiful plants were destroyed. Those who have never been affected by such an event can only imagine the hardship suffered. Society members got together and presented Ruth and Bert with another collection of bromeliads. Some years later, they found a new home in New Farm, Brisbane. The area was smaller, but they managed to grow a new collection of bromeliads and orchids.

Sadly Ruth passed away in 1995. Bert managed to attend the occasional meeting, however it was never the same without Ruth. On his 90th birthday, Bert moved to the Gold Coast to live with family. He passed away in 2004. The Bromeliad Society of Queensland may have lost two wonderful members, but we will always remember them.

CALENDAR OF EVENTS

BSQ Field days for 2006

Sept 9 - Bruce Dunstan "Stockade Nursery" 70 Wades Road, Bellmere - 9am-1pm Plant Sales

November 25 - Len & Olive Trevor "Olive Branch" 232 Canvey Road Upper Kedron Phone: 3351 1203 9am-3pm plant sales 9.30am, morning tea & lunch, talks and tours of bush houses Members please bring a plate

Bus Trips for 2006

October 28 Depart Uniting Church, Methyr Rd New Farm at 7am, Pick up at Woolworths, Gympie Rd Chermside approximately 7.20am. Arrive back Brisbane approximately 5.30pm

- Visit to Margie & Alex Tymson, large tropical garden. No Plant sales
- Visit Linda & Graham Percival, 1 Purcell Rd, Bells Bridge, Gympie Lunch & plant sales

Contact: Nancy Kickbusch Ph.

BOOKS FOR SALE

• A Bromeliad Glossary (1998 edition) by the Bromeliad Society International (BSI)	$13
• Bromeliads: A Cultural Manual by BSI	$5
• Bromeliads: Next Generation by Shane Zaghini	$33
• Bromeliads for the Contemporary Garden by Andrew Steens	$36
• Judges Handbook by BSI	$34
• The Red-Flowered Tillandsias from Brazil by Renate Ehlers	$25
• Bromeliad Cultivation Notes by Lynn Hudson	$7.50
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