

Bromeliaceae



VOLUME XXXIX - No. 3 - MAY/JUNE 2005



The Bromeliad Society of Queensland Inc.

P. O. Box 565, Fortitude Valley
Queensland, Australia 4006,
Home Page www.bsq.org.au

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Vacant

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BSQ WEBMASTER

Kieth Dawson (07) 3285 6710

SOCIETY PHOTOGRAPHERS

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Peter Paroz, Patricia O'Dea

Michael O'Dea

Front Cover: *Billbergia pyramidalis*

Photo by Ross Stenhouse

Rear Cover: *Pitcairnia smithiorum*

Photo By Ross Stenhouse

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Bromeliaceae Copy Deadlines

Jul/August.....June 5th, 2005

September/October.....August 5th, 2005

November/December.....October 5th, 2005

Jan/Feb.....December 5th, 2005

Please forward all copy and photographs to:

The Editor, 15 Timbarra Crescent, Jindalee, Qld 4075

Phone: 07 3376 5558 Email: rossjanstenhouse@hotmail.com

Electronic copy RTF or MSWord 7.0 or earlier - Times New Roman

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Opinions expressed in this publication are those of the individual contributor and may not necessarily reflect the opinions of the Bromeliad Society of Queensland or of the Editor

Authors are responsible for the accuracy of the information in their articles.

Society Diary

NEWS

REPORTS

EVENTS

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.

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.bsq.org.au

Competition Results: April Mini-show

Advanced

Class 1 N/E

| | | | |
|---------|--------|-----------------|---------------------------|
| Class 2 | First | G.&N. Aizlewood | <i>Guzmania sanguinea</i> |
| | Second | J. Higgins | <i>Guzmania sanguinea</i> |

Class 3 N/E

| | | | |
|---------|--------|--------------|------------------------------|
| Class 4 | First | P. Paroz | <i>Tillandsia punctulata</i> |
| | Second | D. Cutcliffe | <i>Hectia rosea</i> |

Intermediate

Class 1 N/E

| | | | |
|---------|-------|-------------|------------------------|
| Class 2 | First | B.&A. Kable | <i>Gusmania</i> 'Neon' |
|---------|-------|-------------|------------------------|

Class 3 N/E

| | | | |
|---------|-------|-------------|---------------------------|
| Class 4 | First | B.&A. Kable | <i>Vriesea</i> 'Cockatoo' |
|---------|-------|-------------|---------------------------|

Novice

Class 1 N/E

Class 2 N/E

Class 3 N/E

| | | | |
|---------|--------|--------------|------------------------------------|
| Class 4 | First | L. Grubb | <i>Tillandsia capitata</i> 'Peach' |
| | Second | V.&J. Duncan | <i>Tillandsia</i> 'Tawny Yellow' |

Photographic Display

The management committee is considering the inclusion of a small photographic display in the Spring Bromeliad Show, the intention is to have a number of framed photographs of Bromeliads on display. I have found out by recent personal experience that growing broms and photographing their flowers is a heck of a lot of fun. I think a number of other members also enjoy this niche of the bromeliad world.

Having a small display of good photographs adds to the interest of the show, If you are interested in exhibiting or want to be involved, contact me :Ross Stenhouse email rossjanstenhouse@hotmail.com or phone (07) 3005 7723 (work)

SCHEDULE OF 2005/06 MONTHLY MEETING TALKS

(compiled by Olive Trevor and Bob Reilly)

At each of the Society's monthly meetings there is a 45 minutes (approximately) presentation on a bromeliad-related topic's. The schedule for 2005/06 is outlined below.

Please note it is subject to change, depending upon the availability of speakers.

- **May 2005** Growing pitcairniais/pepinias. Please bring along any of these plants you may have. Discussion leader: Bob Reilly.
- **June 2005** Bromeliads in the landscape (Illustration of the application of planting design principles, so as to maximise the potential of bromeliads/companion plants). Presenter: Arno King.
- **July 2005** Growing miniature neoregelias. Please bring along any of these plants you may have. Discussion leader: Arnold James.
- **August 2005** Question and answer session on any bromeliad issue you may have. Discussion leaders: Olive Trevor and Cheryl Basic.
- **September 2005** Some neoregelia hybrids. Presenter: Arnold James.
- **October 2005** Growing nidulariums/canistropsis. Please bring along any of these plants you may have. Discussion leader: Olive Trevor.
- **November 2005** A South American Trip. Presenter: Greg Aizlewood.
- **January 2006** Different forms of *Tillandsia fasciculata*, *T. jalisco-monticola* and their hybrids. Please bring along any of these plants you may have. Discussion leader: Nev Ryan.
- **February 2006** After the Annual General Meeting, there will be a slide session titled: The Year in Review. Presenter: Doug Upton.
- **March 2006** Variegation in bromeliads. Please bring along any variegated bromeliads you may have. Discussion leader: Bob Reilly.

If you would like to give a talk/presentation in 2006, then the meeting programme co-ordinators, Olive Trevor and Bob Reilly, would like to hear from you.

Our telephone numbers are: Olive Trevor (07) 3351 1203, Bob Reilly (07) 3870 8029.

MANAGEMENT COMMITTEE VACANCY

The office of President of the Bromeliad Society of Queensland Inc. is vacant. This position will be filled at the Society's general meeting commencing at 8pm on 16 June 2005 in the Uniting Church Hall at 52 Merthyr Rd, New Farm.

Nomination forms are available on request from the Secretary. Nominations close with the Secretary at 5pm on 3 June 2005. Nominees for the position must be financial members of the Society. If no written nominations are received by the Secretary by 5 pm on 3 June 2005, nominations will be sought at the 16 June 2005 general meeting.

BEGINNERS CLASSES: 2005/06

compiled by Bob Reilly

The Bromeliad Society of Queensland conducts “beginners” classes of 30 minutes duration before its monthly meetings. They commence at 7.30 pm. The classes’ topics, collectively, provide an introduction to growing bromeliads.

The schedule for April 2005 to March 2006 is shown below. It is subject to change, depending on the availability of speakers.

| <u>TOPIC</u> | <u>MONTH</u> |
|--|--------------|
| Bromeliad clinic | May |
| What is a bromeliad, where to buy them, books about them | June |
| Growing green-leafed vrieseas | July |
| Basics of growing bromeliads, for example, watering, disease control | August |
| Growing aechmeas | September |
| Growing medium-sized neoregelias | October |
| Growing miniature neoregelias | November |
| 2006 | |
| Growing decorative foliage vrieseas | January |
| Fertilising bromeliads | February |
| Growing guzmanias | March |

Course presenters: **April 2005 – Nev Ryan, May 2005 – Jenny Cakurs, June 2005 – Greg Aizlewood, July/August 2005 – Narelle Aizlewood, September 2005 – Dorothy Cutcliffe, October/November 2005 - Arnold James, January 2005 – Olive Trevor, February 2005 – Peter Paroz, March 2005 – Olive Trevor.**

If you have any queries concerning these classes, please contact the co-ordinator, Bob Reilly. Contact details: phone (07) 3870 8029,
email bob.reilly@nrm.qld.gov.au

If you would like to give a beginners’ class in 2006, then please contact me.

Photographers Code

RS : Ross Stenhouse

DU : Doug Upton

KM : Ken Marks (BSI Web Site)

BH - Bruce Holst (Marie Selby
Botanical Gardens Web Site)

PN - Phil Nelson (Marie Selby
Botanical Gardens Web Site)

KM - Ken Marks (Florida Council of
Bromeliad Societies web site)

SM - Shigeko Matsuse (Florida
Council of Bromeliad Societies
web site)

The Editor's Desk

Well, the last edition turned out OK, but there is plenty of room for improvement. It was an issue where I re-familiarized myself with the technology and boy hasn't it changed. Heavy use was made of email during assembly, both in terms of getting copy from contributors and also in emailing Portable Document Files (PDF) files to the review panel for feedback. The panel had members from as wide afield Lyn Hudson in Cairns through to a number based in Brisbane.

Even the technology used in the printing aspect has changed, gone are offset printers, separation negatives, printing plates and high set-up costs, instead we now have large production printers based on the laser technology used in the higher quality office printers.

It was very pleasing the way all parties co-operated to get the publication to bed, I hope this is a portense of things to come. I look forward to the remainder of my term as editor, these first two editions have been very satisfying to produce.

In this issue, we have presented *Pitcairnia* as a feature genus. We have included a lot of information and by doing so, feel that one of the objects of the association, education on the subject of Bromeliads, is being filled. You might have noticed that the calendar of events is located at the rear of the publication, just ahead of the adds section. This will be a permanent location, at least during my term as editor.

The April general meeting was another very successful meeting for the association, a number of the plants mentioned during the presentation matched up with the plants

I have used as examples in the photographic article I have written for this issue (*Billbergia pyramidalis*, *Tillandsia cyanea*). Nev Ryan's beginners class on growing grey-leaved tillansias was very interesting as was Greg Ailzlewood's main feature on growing billbergias. These presentations make the meetings very worthwhile to attend. I commend the presenters on a job well done.

We have increased the number of colour pages in this and future editions, so I thought I might mention one of my editorial policies, the front and rear cover is reserved for bromeliads photographs with high artistic merit, only the plant name and the photographer will be given. The six pages of interior colour will be used for "technical" photographs. Normally, but not always these will be supporting an article. We can use black and white photographs and line drawings, these would be on the normal pages in the magazine, though for plants like bromeliads which have very spectacular colour, so b&w photographs hardly do them justice.

BROMELIACEAE

| | |
|--------------|----------------|
| Editor | Ross Stenhouse |
| Photography | Doug Upton |
| Mail Out | R & B Pugh |
| Contributors | Bob Reilly |
| | Peter Paroz |
| | Lyn Hudson |
| | Robert Smythe |
| | Barbara Pugh |
| | Robert Smythe |
| | Bernard Stonor |
| | Chet Blackburn |

BROMELIADS XIII CONFERENCE UPDATE

(compiled by Bob Reilly)

All of the proposed speakers have confirmed their availability for the event and the topics on which they will speak. The bus trips have also been confirmed, subject to sufficient registrants wishing to use them.

Accommodation at the conference venue is filling fast. If you wish to use this accommodation option, I suggest you book your requirements quickly. (Bookings must be made direct with the accommodation owner, the Bardon Conference Centre: Contact details:

phone 61 7 3217 5333,

Fax 6 17 3367 1350,

email reception@thevenues.com.au)

. While the Conference Committee has arranged for “overflow accommodation” with the conference venue’s owners, it is located several miles away from the venue.

Strong interest in the conference is evident from New Zealand and the eastern Australian states. People will also be attending from South Australia and Western Australia. Interest has also been expressed by potential registrants from the Philippines and the United States. At this stage, it looks like the number of registrants will be in the range of 150 to 250.

Additional registration forms can be obtained by “downloading” them from the Society’s website (www.bsq.org.au) or by mail from Conference Registrations, PO Box 565, Fortitude Valley, Qld 4006.

A number of additional issues have been raised with the Conference Commit-

tee. They cover matters such as: the availability of “single day” registration tickets; whether children will be allowed to attend seminars and bus trips; and whether members of the public will be able to see the bromeliad displays and buy plants, without paying any registration fees.

Many of these issues are inter-related, and, in addition, the answers to some of them will depend upon how many people register for the conference. Once “early bird” registrations close on 30 June 2005, the conference committee should be able to estimate the likely total number of registrations. In July, the committee will address the issues (and others) mentioned in the last paragraph.

In the meantime, if you have any queries please either email them to: secretary@bsq.org.au or mail them to: Secretary, Bromeliad Society of Queensland (Inc), PO Box 565, Fortitude Valley Qld 4006.

As well as being a lot of fun, the Auction which will be held on Saturday (15 October) evening helps meet the cost of funning the conference. The Conference Committee would appreciate receiving donations of rarer bromeliad and bromeliad-related items. Please let the Secretary know (contact details are above) if you can make a donation.

Finally, the last fundraising activity for the conference is underway. The raffle will be drawn on 15 September 2005. The prizes are:

1st Jewels of the Jungle – *The Bromeliaceae of Ecuador: Volume 2 – The Pitcairnioideae* (this great book has just been published).

2nd Voucher for \$100 worth of bromeliads from the Olive Branch

3rd Voucher for \$50 worth of bromeliads from the Olive Branch

Raffle tickets can be obtained by contacting the Secretary as outlined above.

A COMBINED SHOW OF EXOTIC PLANTS

BROMELIADS, CACTI AND OTHER SUCCULENTS

PRESENTED BY
THE BROMELIAD SOCIETY OF
QUEENSLAND INC.
AND
THE CACTUS AND SUCCULENT
SOCIETY OF QUEENSLAND INC.

At the MT. COOTHA BOTANIC
GARDENS AUDITORIUM

| | | | |
|----------|--------|------|--------|
| Saturday | 11th | June | 2005: |
| | 8.00am | - | 4.30pm |
| Sunday | 12th | June | 2005: |
| | 9.00am | - | 3.00pm |

Displays of Bromeliads, Cacti and Succulents, decorative and colourful plants from North and South America, Africa, and many other regions of the World

PLANT SALES

ADMISSION:
ADULTS AND CHILDREN 14 YEARS
AND OVER \$3.00
CHILDREN UNDER 14 YEARS FREE
IF ACCOMPANIED BY AN ADULT

The Anatomy of a Flower

M. Abercrombie et al 'A Dictionary
of Biology'

The flower is a specialised reproductive shoot consisting of an axis (receptacle) on which are inserted four sets of organs. The outermost are the *sepals*, usually green, leaf like, and in the bud stage enclosing and protecting the other flower parts, collectively known as the *calyx*. Within the sepals are the *petals*, usually conspicuous brightly coloured parts, collectively known as the *corolla*. Calyx and corolla constitute the *perianth*; they are not directly associated with reproduction and are often referred to as *accessory* flower parts.

Within the flower petals are the *stamens* (*microsporophylls*), each consisting of a stalk bearing an *anther*, in which pollen grains (*microspores*) are produced. In the centre of the flower is the *gynoecium*, comprising one or more *carpels* (*megasporophylls*), each consisting of an *ovary*, a terminal elongation of the *style*, bearing the *stigma*, the receptive surface for the pollen grains. The ovary contains a varying number of *ovules* which after fertilisation develop into seeds. Stamens and carpels together are known as the *essential* flower parts since these alone are concerned with reproduction.

In bromeliad flowers, the components are found in threes or multiples of three, a feature of all monocotyledons.

How about sending in an article or photograph, we need help!

It can be email to:
rossjanstenhouse@hotmail.com



Canistropsis billbergioides RS



Tillandsia cyanea RS



Aechmea 'Purple Gem' RS



Guzmania lingulata 'Purple' RS

A few tips on taking photographs of Bromeliads

Author: Ross Stenhouse

When I became the editor, I was told by all and sundry, that the colour photographs are an important aspect of *Bromeliaceae* and that the readers really look forward to seeing them. I had no problems with that as in a past life, I had been a commercial photographer, and I still have a deep interest in photography.

As editor, I am seeking to involve more people in contributing to the journal, and of course that includes more people submitting photographs. It would be great for me as editor, to be able to pick and choose amongst a lot of good photographs as to which ones would grace the pages of *Bromeliaceae*. I thought I would write a quick article for the journal and take a few quick photos in the back yard to illustrate the point its not hard to get a good result.

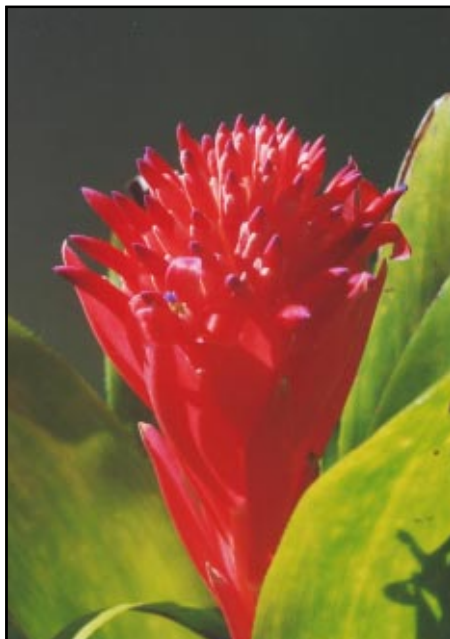
As with many things, there is a technical side and an artistic side, now I am not the most artistic person in the world, but I have a reasonable eye for balance. From my training in photography all those years ago, one facet that sticks in my mind is to make sure there isn't a lot of unnecessary clutter in the background. This can ruin a photograph, it serves as a distraction and usually adds nothing to the image.

The photographs on the opposite page were taken with just a minimum of equipment, a Nikon F2 Photomic 35mm camera fitted with a 50mm macro lens, a cable release for the shutter, a tripod and a Metz CT60 flash unit hand held and a piece of white cardboard to serve as the background. A tripod is an absolute necessity, you can-

not take consistently good close-up photographs without using a tripod and a cable release. Similarly if your 35mm camera has a mirror up facility (as the F2 does), then that should also be used. The movement of the mirror causes camera shake which detracts from the sharpness of the photo. The white cardboard (about 600 x 900mm) was placed in the background about 400mm from the subject. Its purpose is to prevent any background clutter.

The photographs were taken in full sunlight using an old photographic trick called 'syncrosun'. That is a flash was used to fill in the shadows and the flash exposure was adjusted to be about 1/2 to 1 a stop underexposed. This sounds complicated, but using a flash like the Metz CT60 on automatic, you just set it so that if your main exposure was at F11 then the flash is set to F8. It is possible to use the sun to fill in the shadows and use the flash for the highlights. Both techniques have been used in the photos supporting this article. The white card in the background was in shadow and hence has become quite dark. This was intended, if we wanted a white background we would use a second flash head to wash out (light) the background.

Sharpness in the area of interest is what we are striving for, Therefore the point at which we focus is important, we may not necessarily focus on the parts of the subject closest to the camera, rather chose a point a bit further back and rely on the depth of field for the particular F stop we have chosen to bring them back into focus. While we are striving to have our foreground in sharp focus, quite often we are looking to have the background well out of focus to minimise its distraction upon the viewer.



Billbergia pyramidalis

RS



Billbergia pyramidalis

RS



Pitcairnia smithiorum

RS



Pitcairnia smithiorum

RS

By getting in closer, we can add dramatic effect to our photograph and also show parts of the flower that are normally very small and hard to see. The effect of the close-up is illustrated to good effect in the second photograph of the *Billbergia pyramidalis*. When doing close-ups, its important to remember to clean out the detritus in the flower, the high degree of magnification means that things that are virtually invisible to the naked eye become very obvious in a close-up.

On the page opposite are two photographs of the inflorescence of the *Billbergia pyramidalis*, You could almost be excused for thinking they were two different species of plant, however one is simply a close up of the flower. *Billbergia pyramidalis* is a great subject for beginners because the inflorescence is so large, yet it is composed of a mass of small flowers, thus giving a lot of opportunities to get in close. The different varieties available for this species give added interest because the flowers vary significantly making close-up work a joy.

The *Tillandsia* flower was a complete surprise, the contrast between blue flower and the pink inflorescence together with the size of the flower make it an interesting subject to photograph.

Two *Pitcairnia smithiorum* photographs have been included one shows the side profile of the inflorescence showing its elongated form, the second is more of a 3/4 view from the top, showing how the flowers spread from the centre structure. By careful choice of angle, the photograph can be made to be more than just a pretty picture. One of the elements of design is 'Fitness for Purpose', so when taking your photographs, consider what is their end

purpose.

Photographing whole plants can be a difficult, mainly due to the fact that they are not as visually spectacular as most flowers are. This means that you must concentrate on looking at the form of the plant to choose a pleasing angle. Its similar to photographing a sculpture, there angles that are more pleasing to the eye.

The best way is to set up the plant in front of a background and rotate the plant in a number of small increments, its amazing how effective this is in revealing the best angles. Once again, its vital that the background is considered. The photograph on page 25 of the *Pepinia sanguinea* is a good example. I have used a plain background because I wanted to show the form of the plant, however that photograph could have been greatly improved by a better background. I am endeavouring to come up with dappled green background that I can make out of focus by careful choice of 'F' stop when taking the photograph.



Canistropsis billergioides RS

2004 Society Financial Statements

An extract from the Society's audited 2004 financial statements appears on below. If you would like a copy of the complete audited financial statements, please contact the Secretary. While the Society's financial position is excellent, it does raise the question of whether we should continue accumulating funds, or spend them on bromeliad-related projects..."

The Bromeliad Society of Queensland Inc

Income and Expenditure Year Ending 31.12.04

Income

| | |
|----------------------------------|------------------|
| Trading profit | 72.58 |
| Advertising | 210.00 |
| Bus trips | 4,755.00 |
| Combined show – equity change | 1,147.23 |
| Interest – bank | 1.35 |
| Interest – term deposits | 2,314.05 |
| Plant sales commission/auction | 23,219.20 |
| Raffles receipts | 2,649.20 |
| Subscriptions from members | 3,685.00 |
| Profit on conference activities | 1,029.48 |
| Door takings – Spring show | 2,614.15 |
| Donation to Conference Committee | 611.00 |
| Total income | 42,308.24 |

Expenses

| | |
|--|------------------|
| Audit fees | 396.00 |
| Bank Fees and Charges | 93.50 |
| Bus trip expenses | 5,202.40 |
| Computer & Editor's expenses | 13.70 |
| Depreciation – plant | 1,909.00 |
| Hire hall | 767.00 |
| Incorporation expenses | 34.20 |
| Insurance | 1,228.70 |
| Journal expenses – printing | 3,087.37 |
| Journal expenses – postage | 692.97 |
| Postage | 323.50 |
| Printing & stationery | 690.75 |
| Raffle expenses | 1,579.00 |
| Repairs & minor equipment | 224.95 |
| Show expenses | 3,145.07 |
| Social costs | 582.35 |
| Subscriptions | 30.00 |
| Sundry expenses | 996.01 |
| Trophies | 86.00 |
| Total expenses | 21,182.47 |
| Excess of Income over Expenditure | 21,125.77 |

Balance Sheet Year Ending 31.12.04
Non-Current Assets

Property, Plant and Equipment

| | |
|--------------------------------|-----------------|
| Plant & equipment – at cost | 1,462.93 |
| Plant & equipment – library | 5,397.29 |
| Plant & equipment – computer | 5,832.00 |
| Less: Accumulated depreciation | (9,447.00) |
| | 3,245.22 |

Other

| | |
|------------------------|----------|
| Equity – combined show | 2,971.09 |
|------------------------|----------|

| | |
|---------------------------------|-------------------|
| Total Non-Current Assets | 6,216.31 |
| Total Current Assets | 95,223.10 |
| Total Assets | 101,439.41 |

Current Liabilities

Other

| | |
|--------------------------------|--------|
| Subscriptions in advance | 360.00 |
| Deposits held on books ordered | 850.00 |

| | |
|----------------------------------|-----------------|
| Total Current Liabilities | 1,210.00 |
|----------------------------------|-----------------|

| | |
|--------------------------|-----------------|
| Total Liabilities | 1,210.00 |
|--------------------------|-----------------|

| | |
|-------------------|-------------------|
| Net Assets | 100,229.41 |
|-------------------|-------------------|

| | |
|---|-------------------|
| Opening retained profit 31.12.03 | 79,103.64 |
| Net profit | 21,125.77 |
| Closing Retained Profit | 100,229.41 |

Peter Paroz wonders
“Whatever Happened to
These?”

In the very early days of the Bromeliad Society of Australia, one of the members has a batch of *Ae. Lueddemanniana* seed irradiated in the Lucas Heights atomic reactor. I received some of the seed but they did not germinate. There were no reports of seedlings from other members of BSA; I can only presume that the seeds had been sterilised in the process. Looked like an interesting experiment at the time.

New Members

We would like to welcome the following new members to the Bromeliad Society of Queensland.

Welcome to
 Graham Wemyss,
 Judy Allen,
 Cleve Whitworth,
 Janet McEwan.



Aechmea fasciata

RS



Aechmea gamosepala

KM



Vriesea guttata

SM



Neoregelia ampullecea

KM

Beginner's Corner

Author: Peter Paroz

A series of tips and comments for newcomers to bromeliad culture.

- The Society has probably the best collection of books and other publications on bromeliad culture and related topics in Queensland. The lending library is an excellent source of information for beginners. If you are not sure which book might answer a particular question, just ask our helpful librarian. While the subject has been canvassed by committees several times over the years, books on loan are only available to members who can attend monthly meetings. Country members are invited to send in questions to the editor to be answered in future issues.

- The next best source of information is the members !! Experienced members are only too pleased to share information. Find out which member(s) are likely to be able to assist and approach them at any Society function.

- A suitable initial collection for newcomers is :- *Tillandsia cyanea*, *Tillandsia stricta*, *Aechmea fasciata*, *Aechmea orlandiana*, *Aechmea gamosepala*, *Vriesea carinata*, *Vriesea guttata*, *Vriesea splendens*, *Neoregelia ampullacea*, *Neoregelia caroliniae* 'Tricolor', *Billbergia vittata*, *Billbergia* 'Fantasia', *Guzmania tricolor*, *Orthophytum vagans*, *Quesnelia liboniana*, *Nidularium fulgens*, *Pitcairnea flammea*.

These are all species; oldies but goodies; should be readily available at a reasonable price; and are known to grow easily in S. E. Queensland. A good 'practice' selection while you become familiar with bromeliad

culture in your conditions.

- Mid-winter is an ideal time to start to acclimatise plants to a brighter situation in the garden or shade house. As the days lengthen, and light intensity increases, the plants will adapt to the increased light without leaf damage. Remember, there are a limited range of bromeliads that will tolerate Queensland's midday (10am-2pm) in mid-summer.

Look for bleaching of the leaf colour as an indication that the plant will not tolerate the light intensity.

- **Treated Timber Alert.** This warning cannot be repeated too often. The common wood preservative is chrome-copper-arsenate and is not completely 'fixed' into the timber. Small amounts leach from the wood and are extremely toxic to bromeliads. Do not use treated timber for any overhead structure in a bush house; and treated posts, if used, should be painted - preferably two coats - with the paint coating well maintained.

- An old time nurseryman's fungicide for cut surfaces:-

One part powdered sulphur

Three parts slaked lime (not agricultural lime)

Powder finely and mix thoroughly. Store in an airtight container.

- Worms in soil are good but worms in pots are a problem. They digest the organic matter; reducing the life of the mixture and the worm 'casts' are like fine silt; and clog up drainage holes. Pots on the ground or on gravel are at risk. A piece of old shadecloth or mosquito screen cut to the shape of the inside bottom of the pot is an effective deterrent.

- Despite some bromeliad plants being sold as suitable for indoor culture, there

are only a few plants - including bromeliads - which will thrive indoors. It's a question of light intensity. Human eyes are not a reliable measure of light intensity. Plants require a minimum light input (intensity and duration) to maintain condition; with less than this amount of light, the plants will slowly deteriorate and die.

Enjoy your plants indoors when they are at their best and return outdoors when the flowers are spent or the colours fade.

- Bromeliads are propagated by seed or by offsets. Offsets develop from dormant 'buds' mostly in the axil of basal leaves but on some plants from the axils of bracts on the flower stem. Bromeliad offsets develop at the end of a stolon. In some plants, the stolon is long, tough and visible. In others, it is very short, almost non-existent. Roots do not develop from the stolon; cut back the stolon to the base of the offset.

Some plants will set seed. If the seed is not required for growing on, cut off the flower spike when the colour had faded as seed development drains a lot of energy and nutrients from the mother plant - at the expense of offset numbers.

- Stolon A slender branch or shoot which takes root at the tip and develops into a new plant.

- Bromeliads benefit from a regular supply of nutrients; either from the potting mixture or from a foliar spray. Bromeliad plants are well adapted to absorb nutrients from foliar application. The trichomes on leaf surfaces and at the base of leaves have evolved to scavenge available nutrients.

A little and often - **weakly and weekly** !! Irregular nutrient availability leads to variable growth which may show up as irregular leaf margins.

- Beware of the 'decorator pots or

hanging baskets' which have an attached saucer. This can lead to an anaerobic layer of potting mixture in the bottom of the container and possible root rot.

- I have never been enthused with silvery leafed tillandsias glued on rocks and promoted as indoor plants. If they weren't a fresh batch, some of the plants looked positively depauperate before they had left the shop. The last gasp occurred last week when I observed unmounted tillandsias offered for sale in plastic bags !! I had to look twice to be sure.

SPANISH MOSS

submitted by Barbara Pugh

Tillandsia usenoides, which grows from the southern USA down to Argentina, is also known as Spanish moss. Its Latin species name, meaning "looks like Usnea", a lichen, was bestowed by Carolus Linnaeus (the developer of plant classification). It is most commonly an epiphyte of oaks or cypresses, although it is found on other tree species. Its long filamentous masses can hang down in lengths of up to 7m and provide a home for wildlife, including birds, snakes and bats. Spanish moss was once prized as a stuffing for mattresses and it padded the seats of the first Model T Ford cars. Today the US Geological Survey tests samples collected along main roads to monitor levels of pollution absorbed by the plant's scales.

Acknowledgement: The above interesting article comes from the book "Plant" by Janet Marinelli; publisher - Dorling Kindersley Ltd. London. Printed 2004.

This book is available from Brisbane City Council libraries.

GROWING PITCAIRNIAS AND PEPINIAS

by Bob Reilly

The *Pitcairnia* genus is named after a London doctor, Pitcairn. The genus can be found from southern Mexico and the West Indies down to northern Argentina and Peru. Most species are found in Brazil, Colombia and Peru. The only bromeliad species whose native habitat is outside of the Americas is a pitcarinia, namely, *P. feliciana*, which grows on cliff faces in tropical West Africa.

Many botanists argue the genus *Pepinia* should be included in the *Pitcairnia* genus. However, in this article the distinction has been maintained. There are over 250 species in these two genera.

Most pitcairnias and pepinias are grass-like plants that grow in the ground (terrestrials) or on rocks (lithophytes). A few are epiphytes. Most grow in moist, shady locations. Typically, they form a clump that develops through underground rhizomes.

The leaves of many pitcairnias and pepinias are spineless, while those plants with spines generally have small ones.

These plants' leaves are quite variable in length and shape. Some have several types of leaves on the one plant. Perhaps the most graphic example of this variation can be found in "deciduous" species such as *Pitcairnia heterophylla*. In that species, the "normal" leaves drop off at the start of the dry season to help the plant conserve moisture. The short brown "spikes" that remain are a primitive type of leaf that contains no chlorophyll.

Pitcairnias and pepinias can be propagated easily either from seed or, for many

species, by detaching a piece of the underground rhizome (taking care to obtain a piece with roots attached). The underground rhizome can be severed by either using a knife or, in some cases, a spade! Other pitcairnias and pepinias form bulbous-like growths that can be broken apart to provide new plants.

These plants will thrive if grown in a mixture similar to that used for most indoor plants. A mixture, which has given good results for myself, is comprised of 1 part Cocopeat or peatmoss to 1 part of coarse sand. A continuous release fertiliser, such as Osmocote, should be added to the potting mixture in the concentrations recommended by the manufacturer for indoor plants.

Re-pot the plants once a year. They typically like bigger pots for their size than other bromeliads. For example, a single offshoot of many species can often be grown into a small clump that requires a 250 mm bucket within 30 months.

Plants should be watered until water starts to flow through the pot's base, at least three times a week in summer. Twice a week in winter should be adequate, except during periods of low humidity.

These plants' leaves generally do not suffer from insect attacks, although grasshoppers can attack young leaves on rare occasions. However, aphids can cause significant damage to flowers.

Pitcairnias and pepinias will grow well under 50% shadecloth in winter and 75% for the rest of the year. They also thrive in shaded (but well drained for virtually all species) areas in the garden, but are unlikely to do well in situations that receive the full afternoon sun (especially in summer).

When grown in the ground, pitcairnias

relatively tall (usually 50cm or more) green, grass-like foliage can form an effective “backdrop” to a planting, in front of them, comprised of their more colourful bromeliad brethren, for example, neoregelias.

The ancestors of many of the plants currently grown in Australia were obtained by growing plants from seed obtained from overseas. While many interesting plants were obtained, unfortunately it has become obvious that quite a few are incorrectly identified.

While there are few named pitcairnia and pepinias hybrids, it is possible many of the “species” grown in Australia could be hybrids. Alternatively, some species are much more variable in appearance than is commonly believed.

Pitcairnias and pepinias are not readily available. However, you should be able to build up a collection of 10 or more species, over a period of several years, by searching for them at the Society’s field days, monthly meetings and shows, and asking bromeliad nurseries. If you are willing to settle for a rhizome with a few leaves and roots attached, rather than a well-established plant in a pot, then you are in the best position to quickly build up your collection.

Eighteen species are described below. However, it is likely there are at least 30 species and hybrids cultivated in Australia.

Pepinia sanguinea The plant’s arching leaves are up to 60 cm long and 6 cm across at their widest point. The leaves are a “velvet green”, flushed with maroon, on their upper surfaces, and maroon underneath. This plant is well worth growing. Several hybrids have been made with it as one of their parents.

Pitcairnia andreana This is one of the

smallest plants in the genus. The light green leaves are 30 to 40 cm long and up to 4 cm wide. The inflorescence rises above the leaves on a stalk that is about 15 cm long. A cluster of around 10 flowers, each of which is about 10 cm long, constitute the inflorescence. The flowers’ petals are orange at their base, and yellow for their remaining length.

Pitcairnia burle-marxii This plant has a “caulescent” growth habit, that is, it has a distinct stem. The semi-succulent leaves are 3 cm wide and 15 cm long, olive-green on top and maroon in colour underneath. It has a “simple”, that is unbranched, spike of about 15 flowers.

Pitcairnia atrorubens The arching, green leaves are up to 100 cm long and 5 cm wide at their widest point. The dark red, cylindrical spike, which is 40 to 60 cm long, arises from a 30 to 50 cm long stalk. The 3 cm long flowers have yellow or red petals.

Pitcairnia carinata The dark green leaves are about 60 cm long and up to 3 cm wide. The raceme (an elongated cluster of stalked flowers) is bright red, and 20 to 30 cm long. The flowers have red petals.

Pitcairnia flammea v. roezlii The arching leaves are 60 to 80 cm long, and 3 cm wide at their widest point. Each leaf’s upper surface is dark green, while the underside is covered with a dense, silvery-grey “scurf”. The cylindrical inflorescence is about 40 cm long, and 5 cm wide. The top of the inflorescence is about 60 cm above the tips of the plant’s leaves.

Pitcairnia funkiae The arching green leaves are up to 100cm long and 8cm across at their widest point. A 20 cm long, cylindrical, brown inflorescence does not reach the top of the plants’ leaves.

Pitcairnia grafii The light green leaves



Pitcairnia smithiorum

DU



Pitcairnia rubrinigriflora

KM



Pepinia holstii

BH



Pitcairnia altenstenii

PN

are 30 cm long, 3 cm wide, and form a semi-erect rosette about 50 cm across. The inflorescence rises well above the plant's leaves, and consists of a red-orange pyramidal spike about 30 cm tall. Its flowers have yellow petals.

Pitcairnia heterophylla This deciduous plant has 60 cm long light green leaves. At the start of autumn, these leaves are shed and the plant consists of a small clump of brown, spiny "leaves". In spring, a cluster of flowers with pink to red or white petals appears at the end of a short stalk. As the plant is basically dormant in winter, be careful not to over-water it.

Pitcairnia imbricata The light green leaves are up to 60 cm long and 5 cm wide. The inflorescence is a light-red cylindrical spike about 50 cm long. The flowers are about 5 cm long, while the petals are creamy-yellow.

Pitcairnia integrifolia Leaves are 60 to 80 cm long and up to 3 cm wide. The leaves' upper surface is a dull green, with the under surface being covered with dense, grey scales. The branched inflorescence is about 50 cm long and 30 cm wide. The flowers are about 3 cm long, and have petals that are yellow at their base and bright red at their tips.

Pitcairnia maidifolia It has two types of leaves. The inner, green leaves are about 10 cm wide, 30 cm long, and occur at the end of long stalks, while the outer leaves are reduced to blackish "sheaths". Its yellow-green flower spike consists of a 20 cm long elongated cluster of flowers, located on top of a 30 to 60 cm long stalk. The flowers have white petals.

Pitcairnia nigra The plant is about 80 cm tall, with leaves up to 15 cm wide. A cylindrical spike, which is 10 to 50 cm long

and 5 to 7 cm wide, arises from a 20 cm long stalk. The flowers have 10 cm long petals that are yellowish-white at their base, and are black-purple at their tips.

Pitcairnia riparia Individual plants occur on the ends of numerous, above-ground, branching, rhizome-like growths. Each plant consists of a semi-erect "tight" cluster of 5 to 10 leaves. Each of the light green leaves is about 40 cm long and 1 cm wide. The pendent inflorescence consists of a spike having around 10 red-petalled flowers. This plant can be grown in a hanging basket.

Pitcairnia smithiorum The species was botanically described only in 1991, and is one of the most spectacular pitcairnias. The arching, light green leaves are up to 80 cm long and 5 cm wide. An egg-shaped, red-dish spike, which is about 10 cm long and 7 cm wide, arises from a 30 to 50 cm long stalk. The spike is level with the top of the plant's leaves. The flowers have orange-yellow petals. Several beautiful hybrids have been made using this plant.

Pitcairnia tabuliformis This plant has a very different appearance to the other pitcairnias described in this article. About 20 green leaves, 15 cm long and 7 cm wide, form a flattened (table-like) rosette. About 40 flowers form a 5 to 7 cm wide, "head-shaped" cluster in the plant's centre. The flowers' petals are orange-red. This is a rare plant.

Pitcairnia undulata Its leaves are 15 to 20 cm wide, 70 cm long, pale green on top, and whitish-green on their lower surface. The red inflorescence is about 30 to 45 cm long, and consists of an elongated cluster of flowers that have red petals.

Pitcairnia xanthocalyx This plant readily forms a large clump. The 100 cm long

leaves are up to 2.5 cm in width. The leaves' upper surface is light green, while the lower surface is light grey. The many-flowered raceme, which is 50 to 70 cm long, arises from a 60 cm long stalk. The 2 to 5 cm long petals are yellow.

If you only have space for a few pitcairnia, I suggest you try *atrorubens*, *heterophylla*, *nigra*, and *smithiorum*. Colour photographs of over 50 pitcairnia, including many discussed in this article, appear in *Bromeliads* by Francisco Oliva-Esteve. This book can be borrowed from the Society's library. Colour photographs of pitcairnia, including the *P. smithiorum* hybrids mentioned previously, can also be seen on the Florida Council of Bromeliad Societies' website: www.fcbs.org

The best *Pepinia* to grow is *P. sanguinea*.

I thank Mike Symmons for his help in preparing this article, and Doug Upton for taking some of the photographs.

Author Contact details: email: bob.reilly@nrm.qld.gov.au , phone (07) 3870 8029

WHY I GROW PITCAIRNIAS

(by Bernard Stonor)

Editorial comment Reprinted, with permission of the Bromeliad Society International, from the *Journal of The Bromeliad Society*, 1974, volume XXIV(1), pp12-15. In this article, one of the West Australian pioneers of bromeliad growing, Bernard Stonor, discusses why he liked growing pitcairnia.

Well, why not grow them? This genus, for various reasons, has not attracted much

interest or publicity and might therefore appeal to people who are looking for something a little different from all those familiar aechmeas, billbergias, and so on. Surely, in such a large genus, it would not be unreasonable to expect a number of fine plants and colourful flowers.

Information concerning the growing requirements of these plants is not as plentiful as one might wish; and, as is so often the case, the species which are described in articles are not obtainable. So we are faced with the interesting task of discovering their requirements for ourselves.

Nomenclature, too, is not always as accurate as it might be, although this can add interest to the culture of the genus; one never knows what fascinating plant may turn up, hiding under some pseudonym. Obviously, there is a lot to learn and some interesting discoveries to be made.

The first plant I acquired was labelled *Pitcairnia flammea* var. *pallida*. And by the way, I can never understand why, of some six varieties of *flammea*, var. *pallida* appears to be the only one grown in Australia. Maybe some of the others are here, but under different names. Anyway, the plant finally flowered and turned out to be *P. undulata*, an interesting if not exactly colourful species. A seedling of *undulata* flowered at the same time, which enabled me to identify the first plant. These plants were easy to grow and quite hardy, despite their somewhat soft leaves, needing only plenty of water and some feeding when growth was active to build up a flowering sized plant.

Another early arrival was *Pitcairnia andreana*, a small plant with attractive waxy foliage and a very showy inflorescence in yellow and orange. Here at any

rate was one fine species. This variety proved a little more difficult to grow; clearly it is not as hardy as many of the others and although it is not deciduous, it does appear to have a dormant period during winter. At this stage watering may rot the plant. I am not sure there are any active roots to absorb the water in any case at this time of the year.

By now some of the characteristics of the genus were becoming evident, one of these being the long time taken for the petals to develop in the buds before the flower finally opens. The inflorescence seems to grow steadily at first with the buds appearing without any delay. Then there is a long spell during which nothing much seems to happen until finally the petals emerge and open. Fortunately, the sepals, sometimes the entire inflorescence, are usually colored as well as the petals, so the spike is attractive for a long period before the flower opens. The petals last three or four days before withering.

Pitcairnia flammea var. *pallida* finally arrived, a nice hardy plant, easy to grow, which soon flowered. While the white flowers may not be particularly ornamental, they do have one interesting feature not often found in bromeliads—they are scented. A further point of interest was that the scent closely resembled that of the flowers of an olive tree which was flowering at the same time. So this species, too, proved worthwhile, for an unusual reason.

With so few plants available locally, there was only one way to increase my collection—grow them from seed. After a few not so successful attempts, the requirements for growing from seed soon began to sort themselves out. Fortunately, the seed, like most seed of the subfamily, re-

mained viable for a long time, and I don't think any seed I obtained failed to germinate. The seed is very small and may take a long time to germinate, but sooner or later it will do so.

The seed was sown on top of a compost of coarse sand plus some leaf mold, and a clear plastic bag was placed over the pot. The seed was kept just moist until germination commenced by spraying when necessary. As soon as the leaves begin to appear it is better to remove the plastic bag, giving the seedlings plenty of air. Growth can be very slow in the case of most species, and the seedlings generally do much better if left in the original pot until they are a fair size. Even if they are quite large, I still prefer to leave transplanting until the spring and it is clear that growth is active.

As we might expect, not all the seed which we obtain is correctly named, and some interesting plants may appear. I must admit that I have never heard of many of the species being offered, so that is another point of interest, waiting to see what they are like. The first lot of seed I acquired included *Pitcairnia carinata*. This has proved to be a hardy, easily grown species with an all red inflorescence up to one meter high, colorful for a long time before the flowers finally open. A similar plant is labelled *Pitcairnia roezlii*, but this has yet to flower. Seeds labelled *P. heterophylla* have yielded seedlings with extremely long, narrow leaves. This species is more or less deciduous, very slow growing, with a small bulbous base; it is obviously not heterophylla. On the other hand, seed of the species *angustifolia* (?) has produced robust plants with unusually broad leaves. One never knows just what is going to come up. These seedlings have the usual grassy



Pitcairnia smithiorum DU



Pepinia sanguinea RS



Pitcairnia grafii DU



Pitcairnia atrorubens DU

leaves, but they are almost devoid of scales. Some of the other seedlings I am growing also show this feature, while many other species are densely covered with white scales. It would be interesting to know whether these smooth-leaved plants are primitive types just beginning to evolve scales.

One of the most interesting species I have grown so far is *Pitcairnia mirabilis* var. *tucumana*. The name was enough to make me order seed; surely a plant with a name like that must be interesting, and var. *tucumana* suggests that it comes from the Tucuman hills, which I believe are in northern Argentina, so it should be hardy. Unlike most other species, the seed germinated quickly and the seedlings grew fast. The plants finally grew into strange affairs quite unlike any other pitcairnia I had seen. There is a large bulbous base with several tufts of tillandsia-like leaves sprouting from various points on top. These leaves are provided with small, innocent-looking thorns, but careless handling of these plants soon revealed the purpose of these spines. They are very sharp and penetrate one's fingers with ease, becoming detached from the leaf at the same time. This plant grows well in the open, taking sun, wind, rain, hail, anything that comes. While my plants have not yet flowered, I am told the petals are green.

Some time ago, I was given a small plant labelled "*Dyckia velascana*". It is a small species with rosettes of narrow, arching leaves about 8 cm in diameter. The leaf blades are about the same width throughout their length, do not have a sharp thorn at the tip, and bear rather soft spines, widely spaced. The plant flowered in the summer, a 20 cm high stem with three yellow flowers. From the characteristics of the flowers

I am sure this plant is a pitcairnia. The growth habit is very similar to that of *P. mirabilis*, tufts of narrow arching leaves on top of a large bulbous base. It is an attractive and interesting miniature plant, and I hope I can eventually find out its identity.

These are some of the reasons why I enjoy growing pitcairnias. They are full of surprises, there is a very large number of species to choose from, and they certainly add variety to a collection of bromeliads. - *Margaret River, Western Australia.*

THE UNRULY PITCAIRNIAS

(by Chet Blackburn)

Editorial comment Reprinted, with permission of the Bromeliad Society Internations, from the *Journal of The Bromeliad Society*, 1997, volume 47(1), pp24-25. In this article, Chet Blackburn, who was the Journal's editor at the time, takes a light-hearted, but insightful, look at some of the peculiarities of the *Pitcairnia/Pepinia* genera.

Every family has a horse thief somewhere in its past. In fact, for many families horse thieves make up one or more branches of the family tree. In my family, they probably make up the whole damned canopy, but the point is that no family is without the occasional outsider who refuses to conform to the traditions held by the rest of its members – an outlaw who refuses to behave like every other member of the family and so it is with bromeliads. The recalcitrant member of this otherwise stable family is the genus *Pitcairnia*. *Pitcairnia*, and its unruly brother genus *Pepinia*, do not follow the rules that "everyone knows"



Pitcairnia maidifolia

DU



Pitcairnia atrorubens

DU



Pitcairnia riparia

DU



Pitcairnia maidifolia

DU

apply to bromeliads. This in spite of the fact that *Pitcairnia* is one of the first bromeliad genera to evolve.

Prove it you say? Let's just cite some examples:

1. Maple trees are deciduous, grapevines are deciduous, tulips are deciduous, but "everyone knows" that bromeliads are not deciduous. Someone needs to explain that to the small group of pitcairnias which annually shed their leaves to get through the dry season.

2. "Everyone knows" that a bromeliad leaf consists of a blade and a sheath. No one looks at a bromeliad expecting to see a leaf with a petiole. Yet some of the pitcairnias can't even seem to get this simple morphological adaptation right.

3. The family Bromeliaceae is restricted to the western hemisphere...every member of the family but one species is found there. Care to guess which genus includes the solitary outcast?

4. "Everyone knows" that one of the main characteristics for sorting out the three subfamilies of bromeliaceae are the presence or absence of spines on the foliage. The subfamilies Bromelioideae and Pitcairnioideae have them, Tillandsioideae does not. Leave it to *Pitcairnia* to disrupt this comfortable scheme by some of its members having both types of leaves – spiny and spineless – on the same plant. Some even have spines at the bases of the leaf but none along the blades.

5. "Everyone knows" that bromeliads do not like to be overwatered or grow in soggy soil. Yet there are pitcairnias growing in the wild in what can only be described as sopping wet conditions.

6. Bromeliads, like orchids, are the subjects of rampant if not random hybrid-

izing. Hybridizers can't seem to pass a pair of blooming bromeliads without wondering what the offspring between them would look like. For example, there are only about 40 species of *Cryptanthus*, but there are close to a thousand hybrids and cultivars listed, the differences between some of them so small that "subtle" would be too strong a word to use in describing them. There are less than 100 *Neoregelia* species described, but there are 100 pages of hybrids and cultivars (about 21 plants per page) listed in Don Beadle's *Preliminary Listing of All Known Cultivar and Grex Names for the Bromeliaceae*. Therefore you would expect a huge genus like *Pitcairnia*, second only to *Tillandsia* in the number of species in the bromeliad family, to have been hybridized and cultivated to high heaven, wouldn't you? Beadle lists eleven hybrids and no cultivars.

7. Another compulsion of hybridizers is the creation of bigenerics. There are a lot of horticultural Doctor Frankenstein's among hybridizers who are bent on creating new life forms, even if some of them do turn out to be monsters. *Navia* is the genus closest to *Pitcairnia*, hence it is the most likely candidate for bigeneric dallying, but have you ever heard of an X Navcairnia? If even the hybridizers ignore a genus, you know it must be a disreputable one.

8. That bromeliad growers will collect almost anything is apparent by the fact that some of those bigenerics remain in collections. Why in the world would anyone want to grow a X Neomea 'Nebula' for example? Still, as indiscriminate as we bromeliad collectors often are, do you know anyone who has as many as six of the 320 or so species of *Pitcairnia* in their collection?

Not only are pitcairnias and pepinias a primitive bunch, but as shown above, they are also an unruly one. For the sake of simplicity, in this discussion no distinction is made between the genera *Pepinia* and *Pitcairnia*. They both were formerly included as subgenera of *Pitcairnia*, but recently *Pepinia* has been elevated to the status of genus. However, I might add that in his introduction to the *Alphabetical List of Bromeliad Binominals*, Harry Luther remarks, "Nomenclatural problems continue to plague the resurrected genus *Pepinia*. A number of taxa that appear to belong in *Pepinia* have never been formally transferred from *Pitcairnia*."

Why doesn't that surprise me?

-oOo-

Vreaseas

Author: Robert Smythe

I think at last I have worked out why the large Vreaseas topple over in Townsville. I have lost over 20 plants of Red Chestnut and hieroglyphica over the years. The only survivors are epiphytically grown on trees. I have always been perplexed that they grow well in the wet tropics but have been disasters in the dry tropics. The only successfully grown plants, surviving for 5 years or more have been neglected plants in dry pots with dead leaves stopping water getting to the roots. I had thought water was the problem. So why do they do so well in the wet tropics? After visiting the wet tropics and seeing them grown in river sand or scoria I believe the problem is as follows.

In the dry tropics we mulch very heavily with organic materials like leaf litter, bark or hay, during the dry season. None of this goes on in the wet tropics. In the wet sea-

son this turns into humus which is a perfect medium for the various beetle grubs like those of the scarab or elephant beetles to grow in. Towards the end of the wet, humus is disappearing and grubs are mature and they, I believe, get stuck into the Vriesea stems leaving a healthy root stock with a detached plant. By time it starts to topple rot has started and a knife has to be used if the plant is able to be saved. I have noticed piles of faeces around the stock of the old plant suggesting grubs. Even in the wet tropics rarely the odd plant falls over so we must not forget root rot is also being possible from poor drainage. Crown rot and collar rot can also occur due to anaerobic pathogens multiplying in rubbish left to rot in the well or plant axils.

This has perplexed me for years but at last I believe I have a reasonable explanation so I might try these plants again. This time I will plant them in a pocket of sand or even use a course river sand mulch.

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Web Sites used for material in this edition

Whilst we have a number of excellent photographers contribution to this journal, on occasions we cannot source a photograph to illustrate an article. You will see in the Photographers Code section which photographers work was used.

In this edition we have used the following sites:

Florida Council of Bromeliad Societies

<http://fcbs.org/pictures.htm>

Marie Selby Botanical Gardens

<http://www.selby.org/>

Aechmea lueddemanniana & the beautiful cultivars.

Author: Lynn Hudson, Cairns

The name has a lovely 'roll' on the tongue. Many nursery people give their plants names to attract buyers and bromeliad hybridists are no exception - now we have *XAnagelias*. 'Madam Lash' and 'Toy Boy'! Not so with *lueddemanniana* - it was named after H. Lueddemann, plant collector.

Victoria Padilla described *lueddemanniana* as "a spread of 3 feet, arching leaves are mottled with a darker shade of green but most of the plant will become bronzy rose if grown in sufficient light. The erect inflorescence, about 2 feet long, ends in a panicle of lavender petalled flowers that turns into a dense head of white berries ... then become a startling purple. In var. *rubra*, the foliage is rich bronzy red at all times." ("Bromeliads" 1978, page 22.)

Aechmea lueddemanniana and the various cultivars are plants that are easily loved as they are attractive, hardy and freely produce pups. They need to be grown in good light to attain their lovely colours and I find they tend to pup profusely after flowering. The inflorescence is identical in the species and the cultivars.

Some growers find the cultivar names confusing as the same colours of pink, green, white, creamy white and pink/orange occur in many them but the colours are differently arranged. In 'The Bromeliad Cultivar Registry' of June 1998 I found listed these eight cultivars:

'**Pinkie**' is a cultivar with pink tones, in Cairns it glows pink.

'**Alvarez**' is medio-picta, with a broad stripe

of pinkish orange up the centre of each leaf, green margins and centre lineations.

'**Blanca Alvarez**' has variegated foliage but is not medio-picta.

'**MEND**' is albo-marginated, becomes bright pink/red in good light. The name is derived from four people's names, some of whom you have heard or read about. M for Mildred Merkel, E for Edward Ensign who sowed the seed, N for Julian Nally who gave the seed to Ensign, and D in memory of Ralph Davis.

'**Aurora**' is a selfing of 'MEND', and is variably variegated.

'**Rodco**' is the opposite colouration to 'Alvarez' but has wider margins and some pink lineations.

'**Rodco Inverta**' has reversed variegation to 'Rodco', similar to 'Alvarez', but with greener greens and brighter pinks.

'**Ballerina**' is an F2 seedling of 'Rodco Inverta' and is an upright small vase shaped rosette of pink 2" x 10" leaves, distinctly brighter than *lueddemanniana* when grown in 50% light.

Out with your labels and pens, give these beauties their right name.

The words used and their descriptive meanings.

cultivar: a plant type within a cultivated species that has recognisably different characteristics.

albo marginated: with white margins

flavo marginated: with cream/yellow margins

variegated: striped, can be with different colours.

medio-picta: literally 'with painted centre', so medio-picta variegation is with coloured stripes in the centre of the leaf.

CALENDAR OF EVENTS: JULY – SEPTEMBER 2005

(compiled by Bob Reilly)

21 July Society general meeting. Venue: Uniting Church Hall, 52 Merthyr Rd New Farm.

- Beginners' class topic: Growing green-leafed vrieseas. Discussion led by Narelle Aizlewood. Commences 7.30pm.
- Main meeting topic: Growing miniature neoregelias. Discussion led by Arnold James. Please bring along any of these plants you may have.
- Mini-show Class 1: Billbergia, Class 2: Tillandsioideae not listed elsewhere in the schedule, Class 3: Neoregelia – up to 200mm diameter when mature, Class 4: Any other mature (flowering) bromeliad. Species and hybrids are eligible for entry in all classes.
- Plant of the month: Species and hybrids from the following genera – Nidularium, Ochagavia, Orthophytum.

11-20 August Society Display at RNA Exhibition. Set up is on 10 August. We need people to supply plants for, and help set up, the display; and to staff it throughout the show. The Society provides free entry tickets, or will refund the cost of a “single” entry ticket. Many of our members have joined the Society after seeing our exhibit at the RNA, so your support for this activity helps build the Society of the future. Phone Bob Cross (07) 3265 4364 if you wish to help set up the display or would like to supply plants for it. Evelyn Rees (phone 07 3355 0432) is compiling the staffing register; so please contact her if you would like to assist in this activity.

18 August Society general meeting. Venue: Uniting Church Hall, 52 Merthyr Rd New Farm.

- Beginners' class topic: Basics of growing bromeliads. Discussion led by Narelle Aizlewood. Commences 7.30pm.
- Main meeting topic: Question and answer session on any bromeliad issue you may have. Discussion leaders: Olive Trevor and Cheryl Basic.

- Popular vote: Species or hybrids from any genus.
- Plant of the month: Species and hybrids from the following genera: Pepinia, Pitcairnia, Portea, Pseudaechmea, Pseudananas, Puya.

27 August Bus trip to Gold Coast/Mt Tamborine Botanic Gardens.

Leaves Uniting Church Hall, 52 Merthyr Rd New Farm at 7.30am, Palmdale Shopping Centre, Logan Rd, Mt Gravatt 7.45am.

Returns to Uniting Church Hall at 5.30pm. All bus seats must be paid for in advance. Phone BSQ Field Day Co-ordinator, Nancy Kickbusch, for more details on (07) 3300 1704.

15 September Society general meeting. Venue: Uniting Church Hall 52 Merthyr Rd New Farm.

- Beginners' class topic: Growing aechmeas. Discussion led by Dorothy Cutcliffe. Commences 7.30pm.
- Main meeting topic: Some neoregelia hybrids. Presenter: Arnold James.
- Popular vote: Any genus: species or hybrid.
- Plant of the month: Species and hybrids from the following genera; Quesnelia, Racinaea, Ronnbergia and Steyerbromelia.

24 September Plant show and sale presented by the Gold Coast Succulent and Bromeliad Society (Inc). Timings: 10am-3pm. Venue:

Southport Community Centre, Lawson St, Southport. Admission: \$2. More information: phone Pat Ross (President) on (07) 5576 1186.

2006 Field Days and Bus Trip

Each year the Society aims to hold two to three field days at members' gardens and a bus trip (which can also be to members' gardens).

If you are interested in hosting a field day in 2006, or being included on the bus trip itinerary, please telephone the Field Day Co-ordinator, Nancy Kickbusch (on (07) 3355 0432), by 15 August 2005.

While priority will be given to members who have not previously hosted field days, everyone is invited to let Nancy know if you are interested. Nancy will be making recommendations to the Society's Management Committee in September 2005, and the 2006 field day and bus trip program will then be advertised in Bromeliaceae.

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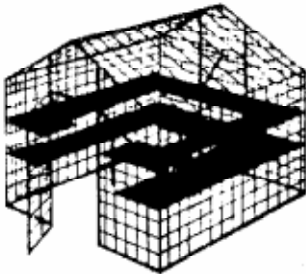
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