

VOLUME XXXVI - No. 3 - May /June 2003

### Bromeliaceae



# 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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## The Bromeliad Society of Queensland Inc.

## **Society Badges**

ARE NOW AVAILABLE \$5.00 EACH

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### Bromeliaceae COPY DEADLINES

July / August......June 15th, 2002 September / October.....August 15th, 2002 Please forward all copy to

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Electronic copy in RTF or MS Word 7.0 or earlier- Times New Roman

Photographs to Doug Upton, 101 Jerrang St. Indooroopilly, Qld, 4068

Phone 07 3378 3511

### **Cover Photographs**

Front Cover

This plant was one of several year old tillandsia seedlings given to me in 1999. Each seedling was mounted and carried a name tag. After growing them for twelve months, they became recognisable and true to their name tags. However, there was one exception. Of two seedlings labelled *Tillandsia balbisiana*, one was certainly not *T. balbisiana*.

After another growing period of eighteen months, I removed its name tag and tentatively renamed it *Tillandsia* 'Whatzit'. I'm sure it deserves a better name: perhaps another bromeliad enthusiast may recognise some of the features of this now mature plant.

Its 110 mm tall dilated base consists of 18 recurved and twisted leaves; most are 35 mm wide and 420 mm long. As the centre stem elongated, the leaves became shorter and spaced further apart. The inflorescence of twelve bracts almost doubled the height of the plant. At maturity, *T.* 'Whatzit' measured 560 mm from its base to the tip of the inflorescence.

The overall plant colour is ghost-like because of its covering of appressed scurf. The inflorescence and some of the upper leaves are flushed with pale pink. Flower petals are pale purple.

T. 'Whatzit' has produced four offsets.

Growers Doug & Joy Upton

Photography Doug Upton

Rear Cover Tillandsia?

One of the most interesting features about this plant is not being able to identify it !! As far as I know, the original plant came from the Pinegrove Nursery at Wardell, New South Wales.

I have flowered four of these plants to date. The first three were grown mounted on cork and matured with an unbranched flower scape. The plant pictured was grown in a pot in a bark and charcoal mixture and has grown much larger and produced a multi-branched flower scape.

The leaves are very stiff -nearly succulent- with a sharp tip. The bracts on the flower spike are covered with prominent trichomes. The petals are dark blue.

If anyone has any suggestions as to the identity of this tillandsia, Please contact the editor so that the information can be passed on.

Grower Nev Ryan

Photography Doug Upton

## Society Diary

NEWS

REPORTS

**EVENTS** 

GENERAL MEETINGS are held on the Third Thursday of each month except December, at the Uniting Church Hall, 52 Merthyr Road, New Farm, Brisbane, commencing 8 p.m. Classes for beginners commence at 7.30 p.m.

FIELD DAYS are held regularly in the gardens of members as advised.

MEMBERSHIP FEES Family \$20, Single \$15 pa \*\*\*\*\*\*\*\*\*\*\*\*

Monthly Meetings

May

Plant of the month Orthophytum

Beginners Class

Phil Hobbs

Neoregelia cultivation

Slide Presentation Arno King

Brazil Visit 2003

June

Plant of the month Pepinia & Pitcairnia

Beginners Class

Slide Presentation N.Z. Bromeliad Conference

Olive Trevor & John Higgins

**Competition Results** 

March Popular Vote

Novice

First

Neoregelia 'Gun Powder'

Barry Kable

Second

Vriesea (gigantea x 'Red Chestnut') Barry Kable

Advanced

First Second Tillandsia duratii

Nev Ryan

Tillandsia fasciculata

Nev. Ryan

Competition Results

April Mini Show

This show was very poorly supported. Only Class 4, (Genera not listed), being represented.

Novice

First Second Neoregelia 'Bronze Beauty' Neophytum 'Galactic Warrior'

Joe Green Joe Green

Intermediate

First Second

Pitcairnia smithiorum Pepinia sanguinea

Bob Reilly Bob Reilly Advanced

First Aechmea 'Early Bird' Dorothy Cutcliffe
Second Vriesea ospinae var gruberi Doug & Joy Upton

### Home Page

The Society's Web Page is now on line and can be accessed at the URL www.bsq.org.au

## **Bus Trips**

Coffs Harbour Bus Trip Saturday 27 / Sunday 28 September

This trip is now almost booked out with only two seats still available.

Full cost \$128. A deposit of \$50 to be paid by 14<sup>th</sup> May. Full payment by 1<sup>st</sup> August

Departure:- Roma Street Transit Centre at 5.00 AM.

Pick-up:- Bus Stop, Palmdale Shopping Centre at 5.15 AM.

Contact Mrs. Nancy Kickbush (07) 3300 1704

Plant Collection of Cheryl Basic Saturday 8th November

Cost \$25 including a BBQ lunch. Members with private transport must purchase a lunch ticket for \$3.

Departure:- Roma Street Transit Centre at 7.30 AM

Pickup: - Bus Stop Cnr. Webster & Gympie Roads at 7.50 AM.

Contact Mrs. Nancy Kickbush (07) 3300 1704

You may have, or know of, a large palm tree, similar to a *Cocos* palm, which is being removed. If you can obtain 1 metre long sections of the palm tree, cut them length-wise and remove the soft material which formed the palm's centre. Replace with tree fern, staghorn, or elkhorn fibre or similar material. Place some of the smaller growing grey-leafed tillandsias in the fibre.

Hang the Tillandsia log from a support in the shade house by means of a loop of plastic-covered galvanised wire around both end of the log. The tillandsias grow well in the log which will last for up to seven years.

Bob Reilly

If you have a large dead tree fern, consider cutting the stem into pieces about 0.5 to 1 metre long. Then cut the pieces length-wise, and fix some of the smaller growing grey-leafed tillandsias to their rounded sides. These miniature "logs" can then be placed on benches in a shade house. They will last for at least five years, if they're cut from near the base of the tree fern.

Bob Reilly

### PRESIDENT'S NOTES

Secretary

My appreciation goes to Chester Cutcliffe who has volunteered to fill the vacant position of Secretary of the Society. Chester already serves the Society in a number of ways and has taken on this additional task. Ruth Higgins has volunteered to take over the role of Meeting Competition Steward vacated by Chester. I am sure all members offer their best wishes to Ruth and Chester in these new positions.

### Get Well List

We extend our best wishes to Joy Upton, Bob Cross and Marj Heinemann who have been unwell. Best wishes also to Thelma Muller who will be having surgery in the near future.

### Field Days

As I write we are looking forward to a visit to the garden of Keith and Janne Redhead at Capalaba on 3<sup>rd</sup> May next. The previous field day at the home of Len and Olive Trevor was well supported by our members and the Sunshine Coast Society sent down a bus load of members which swelled the ranks. The hat competition drew some novel entries and our thanks go out to those who entered and joined in the spirit of the event. Shade house/garden visits were very popular and few people were able to resist the plant sales. An excellent lunch was also provided by Len and Olive. The Management Committee thank Len, Olive and those members of their family who planned and worked hard on the day to make it a success.

### Meeting Venue

Members who are able to attend our monthly meetings will be aware that for some time we have been suffering a lack of room at our meeting venue. This has put pressure on our beginner's class and our plant sales areas. Moving the plant sales back outside the hall has been necessary to free up room inside the hall but it isn't an ideal solution. Lighting is inadequate and the space for plants has had to be controlled. While acknowledging the problems we are still looking for answers. Although the venue is too small, it has many other advantages and we are not planning to move at this time. We welcome suggestions on how we might deal with some of these problems.

### Combined Show

Members should now be well advanced in the preparation of their plants for the forthcoming show. We are striving to improve the numbers of plants on our competitive show tables and we would appreciate it if all members could support us. If every member attending could bring one plant, we

would have more than enough plants to fill the tables.

Members should note that conditions for the sale of plants have been reviewed and reissued (Page 8). In particular, the Combined Show Committee has specified that a durable label showing the plant name (in addition to the paper sales sticker) should accompany each plant offered for sale. An example of a durable label is the conventional plastic label used by most growers, marked with a permanent pen, pencil or marker. Other similar labels would qualify as long as the plant name remains legible for the long term. This requirement brings us into line with other responsible plant societies which conduct public plant sales. This requirement is also necessary to conform with objects of our Society and our constitution

John Higgins

### New Zealand Conference Report

There was a strong representation of Australians including a good number of our Society members at the recent N.Z. Conference held in Auckland, New Zealand. Following a long term invitation to join the Conference round, the decision by the New Zealand Society was announced at the Shellharbour Conference in 2001. With the successful staging of the Auckland Conference, it now makes the event truly Australasian.

In all respects, the Conference was a complete success and the New Zealand Society are to be congratulated. International speakers included Dennis Cathcart (USA), Elton Leme (Brazil) and Pamela Koide (USA). Other speakers were drawn from Australia and New Zealand. The programme was varied and provided interest at all levels from the advanced grower to the novice. The venue was excellent; with all activities contained under the one roof.

The New Zealand Society, several local branches, and individual members provided excellent displays which were located in the foyers and aisles. The competition tables were particularly well supported and plants were of very good quality and variety. There were bus trips to three local gardens and each of these offered something different and interesting to the delegates. The gathering provided an opportunity to see many old friends and to meet new friends. In many ways, the social events are an equal and essential part of these conferences; and provide as much value for the delegates as do the formal talks and events.

Our Society made a short presentation at the end of the Conference to promote the next Australasian Conference, Bromeliads XIII, Brisbane, 2005. We look forward to matching the standards set by the New Zealand Society.

John Higgins

### The Editors Desk

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

### IMPORTANT NOTICE

### Combined Show Plant Sales & Competition

Members are advised that the conditions for the sale of plants at the **Combined Show** have been reviewed and released. Members intending to sell plants at the Combined Show should ensure that they obtain a copy; read and understand these requirements. Copies of the Sales Conditions can be obtained from the Secretary at the monthly meeting or Sales Conditions c/P. O. Box 565, Fortitude Valley, Queensland, Australia, 4006.

Some of the conditions are listed below:-

### Sales

- Members wishing to sell bromeliads at the Combined Show are required to register with the Bromeliad Sales Steward prior to the 1<sup>st</sup> of June, indicating the types of plants (potted or mounted) to be sold and the estimated quantities. To facilitate orderly conduct of the bromeliad sales, registered sellers may be allocated initial numbers of plants, bench space or hanging area; and subsequent replacement quantities and times.
- All plants must have a durable label with the plant name in **addition** to the paper sales sticker.
- Sellers and exhibitors within a prescribed Fire Ant area must provide to the Fire Ant Officer a plant movement document listing the Society's ARMP # and the seller's DPI Initial Site Inspection number.
- Members tabling plants for sales must be financial prior to the first of June.

### Competition

- Members tabling plants for competition must be financial prior to the 1st of June.
- All water must be removed from plants prior to tabling
   Members not meeting these conditions will not be allocated bench space.

## **EXOTIC PLANTS**

A COMBINED SHOW OF

# BROMELADS



CACTI

AND OTHER



## SUCCULENTS

Presented by The Cactus & Succulent Society of Queensland Inc. and the Bromeliad Society of Queensland Inc.

At the Mt. COOT-THA BOTANIC GARDENS AUDITORIUM Saturday 7th June 2003: 9.30am-4.30pm Sunday 8th June 2003: 9.00am-4.00pm

Displays of Bromeliads, Cacti and other Succulents, decorative and unusual plants from North and South America, Africa and the tropical regions of the world.

## • PLANT SALES •

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### **Bromeliad Oddities**

had a recent unusual experience growing bromeliads and I was wondering if others have had anything similar. For twenty years, a Neoregelia concentrica 'Variegata' has grown in the same spot in the same garden and with just the right amount of light and shade, to always produce a very attractive specimen. Over that time, I had given the offsets away to friends and neighbours always retaining the best one as a replacement for the parent plant.

Several months ago something different happened. This faithful plant produced four offsets at once; two were variegated and two were not. All had pretty dark purple stripes running lengthwise along the leaves. However, all four offsets were uncharacteristically long and stringy with a lot of corrugation in the leaves. Obviously, these offsets were produced by the plant under stress. Since the cultural conditions had not changed, this could be assumed to be due to the colder than usual winter.

I kept the misshapen offsets, mainly because of the striping and to see what might eventuate in the next generation of offsets. Three have refused to offset during the warm weather, but one non-variegated plant very rapidly produced four offsets while the weather was still cold, and the plant was still very much an offset itself.

The amazing part is that although the purple stripes have unfortunately disappeared, each offset is not only perfectly shaped and growing so strongly that I am about to remove them. I will select one to be planted in the same position and hopefully it will return to my reliable old *Neo. concentrica* 'Variegata'.

\*Carmel Cullen\*

Ed's Note:- My experience in this area relates to information on pineapple varieties. Ananas comosus cv 'Smooth Cayenne' is genetically unstable, the most common changes are reversion to a fully spined leaf, fasciation of the crown on the fruit, and occasionally a variegated leaf. Variegated plants can be considered as genetic mutations and as such may revert or otherwise mutate further. In the case above, apparently triggered by the stress conditions noted by Carmel.

**REMINDER** Members are advised of the need to paint (sealer + at least one top coat) treated timber where any water run-off might contact plants especially bromeliads. The wood preservative commonly used is CCA, a chrome copper arsenate. Best case scenario *dead spots on the leaves*: Most likely scenario *Dead Plants*!!

### GROWING SMALL GREY-LEAVED TILLANDSIAS

species. Tillandsias have a wide diversity in size and shape. This article discusses a group of plants which I have chosen to describe as the small, grey-leaved tillandsias. They all have silver-grey, silver-green, or grey-green leaves, and do not exceed 30 cm in diameter. Nor does this term cover those really small tillandsias normally having a height of less than 5 cm or so.

All of these tillandsias have similar growing requirements.

Typically, they all grow best on "mounts" of some type. In the past, pieces of cork slabs have been used extensively. However, these are now difficult to obtain. More readily available materials include:

- Pieces of hardwood fence palings and flooring (but not material which
  has been painted or treated with timber preservative). Well weathered
  wood is best, as it provides plenty of crevices and cracks for the plant's
  roots.
- 2 to 3 cm wide callistemon and melaleuca branches which have been dried in a shady place for about a year. The drying process can be accelerated by leaving the leaves attached to the branch.

Bromeliad Society of Queensland Inc.		
BOOKS FOR SALE		
Bromeliads Next Generation by Shane Zaghini	\$33.00	
Tillandsia Handbook by Hideo Shimizu and Hirouli Takizawa	\$58.00	
Bromeliads for Everyone 2 by Bea Hansen	\$11.50	
Growing Bromeliads by The Bromeliad Society of Australia	\$21.50	
Genus Tillandsia by Paul Isley III	\$3.00	
International Check List of Bromeliad Hybrids by B.S.I	\$1.50	
A Bromeliad Glossary, 1977 Edition, by B.S.I	\$3.50	
A Bromeliad Glossary, 1998 Edition, by B.S.I	\$18.50	
Bromeliads - A Cultural Manual by B.S.I	\$5.00	
Distributional Checklist of the Genus Tillandsia by Lloyd Kiff	\$20.00	
A Guide to Beautiful Neoregelias by S. Zaghini	\$20.00	
1985 Bromeliads III Conference	\$10.00	
1993 Bromeliads VII Conference	\$18.00	
Inquiries: LIBRARIAN, Ms. Noela Tucker, Ph (07) 54 ALL PRICES PLUS POSTAGE	93 3677	

It is important plants are firmly secured to their mounts. If they are not, the plant is very unlikely to thrive. Methods for securing tillandsias to mounts include:

- Tying them on with strips of light-coloured hosiery (avoid bright colours as they will not "blend" into the plant and mount).
- Gluing them on using a product such as Liquid Nails. However, use solvent-based rather than water-based glues, as the latter product can disintegrate before the plant sends roots onto the mount.

Mounts can be held in position by securing a thin wire "hook" to their tops, and then attaching them to a variety of fixtures. Examples include: sheets of galvanised weldmesh suspended vertically, shade cloth walls of bush houses, trees, and fences.

The plants described in this article can be grown in full sun during winter and under 50% shadecloth for the balance of the year. (However, they will also grow quite well under 75% shadecloth for the entire year). Positions in the garden which have similar amounts of shade will also produce good results. However, it is important good air circulation exists in whatever location is chosen for these plants.

Watering once a week in winter, between 7 am and 10 am, and twice a week in summer between 7 am and 10 am or 4 pm and 6 pm, will usually produce good results. Watering at these times enables the plant to dry out before mid to late evening, and thus reduce the chance of rot developing. Where plants are grown in clumps, it is important the entire surface of the clump (including its top and bottom) are watered. This approach ensures all plants receive water, as they do not share a common root system (which would enable water to be transported from one plant to another).

While tillandsias are often described as "air plants", they need nutrients to grow and flower. In nature, these are obtained from particles of animal and vegetable matter which are either carried by the wind onto a plant, or which fall onto it. However, the amount of food available from such sources is greatly reduced if a plant is grown in a shadehouse or on a house veranda.

Nutrients can be supplied through a weekly or fortnightly application of liquid fertilisers such as Phostrogen. Apply the fertiliser in accordance with the manufacturer's instructions for indoor plants. (There is a liquid fertiliser which has been formulated especially for certain bromeliads including tillandsias. This fertiliser can be purchased from the Society). Ensure the plant's leaves are wet before applying liquid fertilisers, as this assists in nutrient absorption.

These plants have few pests and diseases. Mealy bugs and "soft" scale can gather at the base of leaves and old flower scapes. They can be treated by

dipping the plant in a commercial insecticide at the concentration recommended by the manufacturer. However, do not use white oil or other oil-based products, as these can kill tillandsias.

Grasshoppers will sometimes attack the foliage of these plants. They can be easily killed by the direct application of physical force in the early morning when they are relatively inactive. The periodic removal of dead leaves helps to minimise the chances of rot developing.

These tillandsias produce offsets in various ways:

- Some tillandsias, for example, certain varieties of intermedia, produce offsets along, or at the end of, flower spikes (as well as other locations on the plant). Such offsets can be detached from the flower spike by using secateurs.
- Other tillandsias, for example, *geminiflora* and *gardneri*, usually only produce one offset. As this is located near the plant's base, and very near to its "growing point", the best approach is to leave the offset on the mother plant. Over time, the mother plant will "shrink" in size, and eventually "disappear" into the growing offset.
- Many tillandsias, for example *bulbosa*, *butzii* and *caput-medusae*, readily form clumps. While these can be separated by "teasing" the plants apart, such species often look their best when grown as specimen clumps.
- Some tillandsias produce offsets near the plant's base. Unlike the first
  category of tillandsias described above, these offsets can be removed by
  gently easing them away from the plant, when they are about half the
  parent's size. Examples are ionantha, albertiana, crocata, and
  streptocarpa.
- A number of tillandsias grow on long stems (this is known as a "caulescent" growth habit). Offsets occur along these stems and can be removed with secateurs. Examples are bergeri, aeranthos, and tenuifolia.
- Some tillandsias, for example *disticha*, produce offsets at the end of stolons. They can be removed by cutting the stolon, with secateurs, about 2 cm from the offset's base.

The plants described in this article periodically "appear" on the plant sales' tables at the Society's monthly meetings, June show, and field days; and can also be bought from several of the bromeliad nurseries which advertise in *Bromeliaceae*. Plants are also obtainable from several of the Society's members who specialise in growing tillandsias.

In preparing the plants' descriptions, I have drawn heavily on the following books: Isley (1978), Oliva-Esteve (2000), Rauh (1979), Shimizu & Takizawa (1998). The titles of these books are given at the end of this article. All of them can be borrowed from the Society's library, which I recommend



T. aeranthos



T. ionantha v zebrine



T. brachycaulos



T. streptophylla



T. cacticola



T. stricta

you do as they describe many other tillandsias.

Photographs of a number of the plants described in this article appear on the centre pages

aeranthos While this is a variable species in terms of its size and inflorescence, a typical plant averages 12 cm in diameter and height. Over time, it grows outwards along a stem. The leaves are silver-grey, and spread in all directions from the stem. It is easy to confuse this plant with *T. bergeri* when they are not flowering. The small inflorescence sits on top of a stalk (floral scape) which raises it just above the plant's leaves. Red floral bracts surround each of the 10 or so flowers which are deep blue in colour. This plant is easy to grow and readily forms a clump.

albertiana. Each plant resembles a small tuft of grey-green leaves on a stem. Plants are usually 5 to 10 cm tall and wide. Each plant has one cherry-red bloom which is about 1 cm wide. Unlike many tillandsias, the bloom lasts for over a week. This plant rapidly forms into a clump.

bergeri. This species eventually produces stems, over 30 cm long, with the current "plant" being at the stem's end. Each plant is about 12 cm wide and high. Leaves are silvery-grey in colour. The inflorescence emerges about the leaves and consists of a small cluster of about 10 flowers with white and violet petals. The floral bracts are often a pale pink.

This plant appears to need good light to flower well. I have a clump grown under 75% shadecloth which produces few flowers compared with one which receives the full morning sun throughout the year, and filtered light in the afternoon. The plant rapidly forms a clump over 60 cm in diameter. Ultimately, the weight of the plants causes the clump to fall apart.

brachycaulos About 30 grey-green leaves form a 15 cm wide and 10 cm high rosette. At flowering, the entire plant turns a bright red. The flowers, which have violet-coloured petals, form a cluster in the plant's centre.

bulbosa. The plant typically reaches 15 cm in height and 12 cm in diameter at maturity. About 6 leaves form a "bulb" at their base and then arch outwards. The leaf colour is quite variable with some plants (clones) have grey-green leaves while others are a silvery-grey. When the plant flowers, the upper leaves and inflorescence are cherry-red in colour. The inflorescence consists of a multi-branched spike, with each "branch" being about 5 cm long. The flowers have blue petals. This plant readily forms a clump. (This is a very variable species with a number of distinct cultural forms including a miniature (to 70 mm tall) and a small very dark-leaved variety Ed.)

butzii. The few leaves are typically up to 30 cm long, form a "pseudo bulb" about 5 cm long at their base. The inflorescence consists of a single pink spike about 15 cm long and 1 cm wide, while the flowers have violet

petals. This species readily forms a clump. It is very variable in size. Some clones have multi-branched spikes.

caput medusae. At maturity, this plant is 15 to 40 cm high and 15 to 30 cm wide. Most forms have up to 10 light green leaves, typically rising from a bulbous base about 5 cm wide and high, although some are much larger. At flowering, a cluster of 6 to 8 small pink to red spikes up to 15 cm long and 2 cm wide emerge from the plant's top. The flowers have blue petals. This is a very variable species. However, the smaller forms, in particular, readily form clumps which are quite decorative even when they are not in flower.

cacticola. At maturity, this plant is often about 10 cm high and 20 cm wide. About 15 silver-grey leaves form a "flattened" rosette. The inflorescence rises from a 25 cm long "stalk" and consists of 5 to 8 lavender-pink spikes each of which is about 10 cm long and 3 cm wide. The flowers petals are white, with violet tips. The long-lasting colouration of the spikes makes the plant well worth growing.

crocata. This species rapidly forms small clumps. Mature plants are 7 to 15 cm in height, width, and appear like small tufts of silvery-grey leaves. A few, aromatic, flowers appear at the end of a 10 cm long stalk. The flower's colour is typically a pale to deep yellow.

gardneri. Around 20 silvery-grey leaves form a rosette about 20 cm high and 15 cm wide. The multi-branched spike is located at the end of a 15 cm long stalk. Each of the pink, elliptically shaped "branches" is about 6 cm long and 3 cm wide. The flowers have pink-red petals. This species, while attractive at all times, is quite spectacular when it flowers.

intermedia. This few-leaved plant has an elongated, bulbous base about 20 cm long and 3 cm wide. The overall height is about 30 cm, while the leaves are grey-green in colour. A multi-branched spike rises just above the leaves. Each branch is pale pink and is around 10 cm long and 4 cm wide. The flowers have violet-purple petals. Several generations of plants may be alive at any time. In some clones, these may form a "chain" of plants, several metres long. This plant may be in some collections under its old name: *T. circinnata*.

ionantha. Up to 40 leaves typically form a dense rosette from 4 to 10 cm high and 2 to 5 cm wide. The leaves are normally silvery-green in colour (although the variety *stricta* has reddish leaves) until it flowers. At that point, the top half of the plant usually flushes red, although many clones turn red all over. 2 to 4 flowers with violet petals emerges from the top of each rosette. However, there is a form (called Druid) with white petals, and whose leaves turn yellow, rather then red, at flowering.

This species is quite variable in size and growth habit. However, its long-

lasting red colouration in the middle of winter (which is when many clones flower, although some flower in spring and early summer), and "no fuss" growing requirements, makes it a very popular plant.

ixioides. About 10 silvery-grey leaves form a semi-erect rosette around 15 cm wide and 10 cm high. Four to 10 yellow-petalled flowers are clustered at

the end of a 7 cm long stalk (floral scape).

streptocarpa. The 10 or so silver-grey leaves form a plant about 25 cm in height and width. Mature leaves have curled tips. The inflorescence forms at the end of a 20 cm plus stalk and consists of 5 to 8 linear clusters of around 6 flowers each. The fragrant flowers normally have blue petals, although there is a form with white ones. This species is quite variable in size and appearance, but is well worth growing for its foliage and fragrance at flowering time.

stricta. Numerous, typically grey-green (but often silver-grey, and one form which develops very dark leaves when grown in full sun), leaves form a rosette 10 to 20 cm wide and 8 to 12 cm high. The arching inflorescence forms at the end of a 5-10 cm long stalk and consists of up to 10 flowers surrounded by pink to red bracts. The flowers typically have blue or purple coloured petals.

This is a very variable species with respect to size, leaf colour and bract/petal colour. Some clones will readily form large clumps of 50 or more plants. When they are all in bloom, the clump makes a spectacular sight. There are summer and winter-flowering forms of this species.

tenuifolia. This species typically has a stem about 20 cm long, while its width is 3 to 5 cm. The leaves are like short pine needles and are usually green, although a dark red to black form is also available. A small cluster of up to 10 white-petalled flowers, surrounded by pink to red bracts, forms the plant's inflorescence. It sits at the top of an erect floral scape which rises above the plant's leaves (There is also a form which has flowers with blue petals). This variable species is easy to grow. It is quite interesting because of its long stem, relative to its width.

All of the plants described above are easy to grow, and could easily form the basis of a small tillandsia collection.

My thanks Nev Ryan for his help in preparing this article, and to Doug Upton for taking the photographs used to illustrate it.

\*\*Bob Reilly\*\*

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### MARCH 2003 FIELD DAY REPORT

On the 29<sup>th</sup> March, the Society held its first field day for 2003. The event was hosted by Olive and Len Trevor, at the Olive Branch in Upper Kedron. About 150 people attended the event. I was especially pleased to see about 40 people from the Sunshine Coast Bromeliad Society, who travelled down on a chartered bus.

Field days always have a social element to them, but this aspect was a real highlight of the day. The social side started with a "fancy hat" parade. Len Trevor was the master of ceremonies, while John Higgins, resplendent in a hat made from *Vriesea fosteriana* leaves, was the judge. Many of the hats were very innovative. Some of the approaches were:

- · Pinning photographs of bromeliads to a hat's brim;
- Intertwining bromeliads inflorescences with cloth to make a colourful band around a hat's brim; and
- Decorating hats with a wide variety of tropical and sub-tropical flowers.

Results of the hat judging competition were: 1<sup>st</sup> Aija Wilson, 2<sup>nd</sup> Jan Wilson, 3<sup>rd</sup> Trevor Lockett, and 4<sup>th</sup> Barbara Pugh. Each place-getter received a bromeliad generously donated by the Olive Branch.

Many people took the opportunity to wander around the Olive Branch's landscaped gardens. These have steadily expanded over the last three years. Since last year, a major new area has been planted around the house, while the steady expansion of bromeliad plantings along the creek flowing through the property, continues.

Some highlights for me were:

- Effective use had been made of foliage plants, such as coleus and cordylines, to provide a "contrast" for bromeliad plantings. For example, a "bank" of coleus plants with red leaves provided an effective contrast to the yellow-orange leaves of *Aechmea blanchetiana*. Plants with green foliage have been used to provide a "backdrop" for more colourful bromeliads.
- Vriesea fosteriana hybrids had been planted in a series of landscaped beds down a steep bank. When standing at the bank's base, it was easy to see the filtered sunlight shining through the plants' leaves, highlighting their red-brown markings.
- The large size and obvious health of the Alcantareas growing in the landscaped plantings demonstrated the advantages obtainable by growing these plants in the ground (but in very well-drained locations!), compared with pot culture.

• The bright display made by a clump of flowering *Pitcairnia* smithiorum plants. Over 15 orange-red cone-shaped inflorescences "stood out" against the plants' green foliage.

As always the plant sales' area was well patronised. Once people had the opportunity to "scratch" their plant buying "itch", talks on various aspects of

bromeliad culture commenced.

I gave the first talk. This was about vrieseas grown primarily for their colourful foliage. As the matters covered in my talk will appear in an article in a future edition of *Bromeliaceae*, I will not discuss this matter further now.

Nev Ryan then gave a talk on growing tillandsias in pots. Points made by

him included:

- Pot culture produces more symmetrical plants, larger inflorescences, and more offsets than is typically achieved by mounting the same plant on a piece of wood, cork, etc.
- Tillandsias grown by Nev in pots include: fasciculata, capitata, jalisco-monticola, Eric Knobloch, beutelspacheri x capitata, 'Evelyn Reilly', rothii, and xerographica.
- Some tillandsias, for example plants of rothii and xerographica, are
  merely placed in empty pots and grow quite happily this way. This
  approach virtually eliminates the possibility of plant rot occurring.
- Nev uses a potting mixture comprised of 1 part charcoal to 9 parts treated pine bark. The pine bark is treated with a soluble fertiliser, which can be bought from the Society.
- To grow well, offsets need to be held firmly in position. This can be
  difficult to achieve with a relatively "loose" potting mixture such as
  a charcoal/bark combination. One technique that Nev uses is to
  attach a plastic "hanger" to the pot. The three "legs" of the hanger
  act as a support for large offsets.

Potted tillandsias respond well to regular applications of a liquid

fertiliser such as Phostrogen.

Len Trevor outlined some lessons learnt during the recent drought concerning water quality. The Olive Branch relies on bore water and rainfall to water their plants. Until the recent rains, they have had to rely primarily on bore water. As this water has a relatively high level of dissolved salts in it, the plants suffered. Some of Len's observations were:

 Once the level of dissolved salts exceeds 300 parts per million (ppm), all bromeliads suffer. Some, for example guzmanias and vrieseas, will only tolerate much lower salt levels, before their growth is adversely affected.

- Salt damage manifests itself first in the form of white salt deposits at the base of each leaf, and leaf tip dieback.
- Adding soluble fertiliser to water will increase its salt load. Two
  practical ways of dealing with this issue are to use rainwater (which
  has virtually no dissolved salts in it) when applying liquid fertilisers,
  and to use low concentrations of liquid fertiliser frequently, instead
  of higher concentrations at monthly or longer intervals.

Olive and Len then gave a demonstration on how to select and mount plants on a "bromeliad tree". As this topic was discussed in an article on pp16-18 of the November-December 2002 edition of *Bromeliaceae*, I will not describe the details of Len and Olive's presentation.

Olive and Len, their family, and other assistants, then provided lunch for over 50 people. This was greatly appreciated by the recipients.

A "big thank you" is due to Olive and Len, their family, and the Olive Branch's staff for all their work on the day, and the week preceding it. Olive and Len's generosity in donating prizes is also appreciated. Thanks are also due to everyone else who helped out on the day, doing tasks such as looking after the plant sales, bromeliad culture demonstrations and talks, selling raffle tickets, and other jobs.

\*\*Bob Reilly\*\*

## A GARDEN—A—FAIR

.....

The Queensland Council of Garden Clubs held its annual show and plant sale at the Mt Coot-tha Botanical Gardens on 8/9 March 2003.

Nancy Kickbusch and Norma Poole provided the plants for, and set up, our Society's display. Colourful neoregelias, vrieseas, aechmeas, and quesnelias were arranged on a Hessian covered "stage". Spanish moss was used as a "trimming" on the edges of the hessian.

Nancy and Norma also helped out in the sales' area on the weekend.

Thanks are due to Nancy and Norma for their work, and to those members who supplied plants for sale.

Rain may sometimes induce a flush of flowers. A *Vriesa elata* plant was flowering at the rate of two to three flowers a day, over several months, and, shortly after 30mm of rain, the flowering rate increased to 10 flowers a day, for several days.

\*\*Bob Reilly\*\*

### Nidularium cariacicaense

You had better start getting your tongue around this name because I think I have found this plant already in Australia.

Peter Franklin of Raymond Terrace, often sends me photographs to challenge me because many are seedlings in the Ortgiesia group of Aechmea. But sometimes he comes up with more normal queries! One was of a photograph of *Nidularium scheremetiewii* which he said that Bill Morris said wasn't, because Lyman Smith said so! This took me back 10 years or more, when I had obtained a *N. scheremetiewii* from Bill as well as a *Nid.* sp.

I felt the *N. scheremetiewii* generally agreed with the description in Smith & Downs after I had taken a flowering specimen to pieces. Then the *Nid.* sp. flowered and it was again dismembered and notes taken. Here, I referred my findings to Elton Leme and he said *N. scheremetiewii*! So we had two *N. scheremetiewii* growing in our garden, one sensu Leme and the other sensu Butcher.

Towards the end of 2000, Leme's Nidularium book arrived in Australia and I wonder how many have really read it. I seem to be the only one to comment on it. We now know that what we were growing as *N. innocentii* v. wittmackianum is now *N. longiflorum*. And we know that the long stolon Nidularium called purpurea is now *N. rubens*.

My latest query from Peter had me referring to my records AND my new Nidularium Book! When all else fails you try the KEY to the species and MY N. scheremetiewii did not fit N. scheremetiewii: but it did fit N. cariacicaense! This had me scrabbling for my worksheet and comparing it with the detail in the book. These fitted much more comfortably than before and what was the clincher was the bluish ovary. In the second part of the KEY, it shows that for this group of Nidularium, ovaries are always white except for N. cariacicaense!

I believe we have another species name to learn and if you want to see for yourself, check the photographs for both species in Leme's book. I am sure you will be convinced just from the photographs.

What other goodies are in store for us in Leme's Nidularium Book? I'm still looking. Are you?

Derek Butcher

If a potting mixture is made up of a mixture of coarse and fine particles e. g. large pine bark chips and humus, the fine particles will, over time, tend to accumulate in the bottom of the pots. There, they may form a "sludgy" mixture which bromeliads dislike. So, try to avoid large range in particle size in your potting mixture.

\*\*Bob Reilly\*\*

## **Study Group Report**

anuary 25th. 2003, began yet another year for members of the Bromeliad Society of Queensland Inc., to participate and enjoy further Study Group activities. Usually, meetings are held at the home of Len and Olive Trevor on the 2nd. Saturday after each Society General Meeting. Any change to the Group's schedule, venue, date / times, is conveyed to members at each General Meeting.

Presiding over this year's meetings will be Olive Trevor, (Chairperson extraordinaire), while yours truly has been elected to write an account of the Group's activities for publication in Bromeliaceae.

Over previous years, the Group maintained a positive interest in hybridizing and seed raising, crossing both species and hybrids. Objectives for 2003 will again include these exercises, and other related bromeliad subjects. For example; Nomenclature 

getting the correct name. Study the Glossary 

learn more botanical terms. Mounting of plants 

not only Tillandsias. Landscaping with bromeliads 

is it necessary to acclimatize? etc etc,. Subjects only briefly touched upon last year, will be placed on this year's agenda. Discussions on variance 

described as the absence of uniformity in 

the overall structure and colour of a bromeliad, from that of others of the same species. And to deliberate, why these altered and different forms are attributed to the plant's genes as opposed to environmental factors.

This year's first Study Group Meeting welcomed Michael Pascal. Michael a Society member, now lives and cultivates his bromeliad collection in far North Queensland. He discussed differences and puzzling characteristics of *Neoregelia carcharodon* and *Neoregelia pascoaliana*. He also spoke of the confusing aspects of plant identification and naming.

Bob Cross tabled *Neoregelia* 'Shelldance'. Its elegant conformation was somewhat spoilt by damage spots and marks to the lower leaves. Bob wanted to know the cause.

Viv Duncan showed several containers of billbergia seedlings (unnamed) growing in coconut fibre. Viv spoke of their growth habits.

Keith Dawson's sealed transparent container filled with Neoregelia marmorata seedlings was impressive. Perfect young plants seemingly flourishing in a bare minimum of growing medium.

Olive Trevor tabled the hybrid *Aechmea* 'Forest Fire' and spoke of some changes to the distinguishing characteristics of Aechmea blanchetiana.

Numerous seedlings, now mature plants, are exhibiting significant overall colour differences; lime green, yellow, orange, and bright red. Several plants have wide upright leaves, others are narrow and reflexed, bending abruptly

backward. All are growing in strong sun light, over many different locations.

An open invitation is always on offer to all Bromeliad Society Members. Breakfast is around 7.30. Members contribute to the table, breads, fruit, or whatever one cares to bring along and share.

It would be remiss of me not to mention this meetings' breakfast centre piece, a water melon fashioned into a serving basket. The handle and the main body of this work of art was carved and filled with melon balls.

Congratulations to Bob Cross.

**Doug Upton** 

## White Ants In Broms?? Scary!!

with my bromeliads last year. Twice, I have found white ant colonies up my trees. I spray the bases of these trees every Christmas period as a matter of practice. One colony was just entering the notch of the first removed branch but unlike any white ants that I had seen before, they were not going to ground. The main nest was in a fern up the tree and all water was gathered from adjoining bromeliads.

Even more amazing on another tree, I had a log suspended on a metre long aluminium wire. The vrieseas growing on the log caught my eye as they appeared mottled around the base. On close inspection the log was completely eaten out by white ants and in a final desperation to survive they were attacking and eating their water reserve. They lived their whole life in this piece of wood with the bromeliad supplying the water. I do know of people living in low set houses with bromeliads mounted on external walls.

This might be a timely warning.

We all have at least one usual pest and we usually keep the gate closed to keep it out. No this is not the one I want to talk about. We talk of flyspeck scale, a bit of rot or the occasional eating insect. Generally, unlike in the USA, where one of the several weevils that eat the bromeliad plants has got established, we have little to worry about. I grow in soil but just to keep up with the Jones' I grew some in bark.

Who says white ants don't eat bark?

The bark and roots were eaten away by these creatures. I have since found Grace Goode's collection has had this problem. I got rid of them in an interesting way. I laid newspaper on the ground covered it with Ant Kill put more paper down, covered it with plastic then put my pots on this with what ever mulch you choose for decorative purposes on top of the plastic. I got the idea from people burying boxes of poisoned newspaper near white ant colonies so it is not really original.

Rob Smythe

### **BOOK REVIEW**

### Canistropsis-Bromeliads of the Atlantic Forest,

Written largely by Elton Leme.

This book was published in 1998 by Marcosi da Veiga Pereira in Rio de Janeiro. It is available from overseas' distributors, and can be borrowed from the Society's library.

This book is the second volume of the "Projeto Nidularium". The first volume was Canistrum-Bromeliads of the Atlantic Forest written by Leme and published in 1997, while the third volume was Nidularium-Bromeliads of the Atlantic Forest. Both volumes can be borrowed from the Society's library. Collectively, these volumes constitute a major taxonomic revision of the genus Nidularium and related species.

The book has 143 pages and over 150 colour photographs. Detailed botanical descriptions, as well as a commentary on their distribution and habitat, are presented for 12 *Canistropsis* species, and 16 *Neoregelia* species. A photograph of a flowering plant is provided for each species and, in many cases, a habitat photograph as well. This book contains the first published botanical description of quite a few of the species.

While many of the species are of limited horticultural significance, some are very attractive. Examples include: *Neoregelia rubrovittata*, *N. menescallii*, *N. arevedoi*, and *N. kerryi*.

The second part of the book consists of several chapters on a number of botanical attributes which can be used in the taxonomic classification of bromeliads. These chapters have been written by specialists in these fields. Attributes covered are: leaf structure, pollen morphology (shape/size), and stigma morphology. Photographs of the "type specimens" used to botanically describe the plants, and line drawings of their key botanical attributes, then follow. A comprehensive list of references and an index complete the book.

While some readers may find the second part of the book "heavy going", it is worth persevering, as you gain an insight into the issues associated with botanically-classifying bromeliads.

However, the book is well worth reading just for the descriptions; and photographs of the Canistropsis and Neoregelia species covered in it.

Bob Reilly

If you are putting pots of bromeliads into a landscape display, ensure water can drain away from the pots. Otherwise, if the pots' drainage holes "clog up", or the pot is sitting in constantly wet soil, the plants may rot.

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Member	Wanted		Phone
Michael Pascall	Aechmea gigantea	PS	07 4098 8253
Dorothy Cutcliffe	Neoregelia carcharadon (reddish)	P	07 3386 0505
Keith Pohlman	Neoregelia 'Absolutely Fabulous'	P	07 4151 5395
Keith Dawson	Vriesea zamorensis		07 3285 6710
Keith Pohlman	Neoregelia 'Bailey'		07 4151 5395
Doug Upton	Aechmea retusa	P	07 3378 3511
Bob Reilly	BSI Journal 1995-2002 (Any Is-	M	07 3870 8029
Carmel Cullen	Neoregelia 'Tim Mentelos'	P	07 3201 6524
Carmel Cullen	Neoregelia 'Kahala Dawn'	P	07 3201 6524
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Peter Paroz	Tillandsia funckiana	P	07 3265 1547

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