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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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Contents

Society Officials	Inside front cover
Contents	Page 1
Cover Photographs	Page 2
Spines	Page 2
Society Diary	Page 3-4
Combined Show Competition Results	Page 5-6
Editors Desk	Page 7
Photographs, Photographs and More Photographs	Page 8
Neoregelia 'Princess Caroline'	Page 9-10
A-GARDEN-A-FAIR: 2004	Page 11
Conference Newsletter # 4	Page 12-13
Foliage Vriesas Part 2	Page 14-18
Combined Show Report	Page 19-21
Plant Breeder's Rights and Patents Part 2	Page 22-28
Book Review 'Blooming Bromeliads'	Page 28
Personality Profiles	Page 29-30

Advertisers

M. J. Paterson	Page 31
Pinegrove Bromeliads	Page 31
Raemur Plant Farm	Page 31
Brisbane Bromeliad Centre	Page 32
Forest Drive Nursery	Page 32
The Olive Branch	Page 32
Bromagic	Inside rear cover
BROMMAD	Inside rear cover
Peters Glen	Inside rear cover

Bromeliaceae Copy Deadlines

O. Trevor

Cover Photos

Front Cover Champion Bromeliad

Guzmania sanguinea 'Tricolour'

Rear Cover Reserve Champion Bromeliad

Deuterocohnia brevifolia M. Dalton

Spines

All members of the *Bromelioideae* and *Pitcairnioideae* have spines although the development of the spine varies considerably. An extreme case is *Pitcairnia heterophylla*. This species is deciduous and develops two distinct types of leaves. The green leaves develop from a pseudo bulbous spiny clump. These leaves are spineless and are shed in autumn as the black spines develop. These spines are very sharp and quite brittle. Handle with caution.

Some other pitcairnias have apparently spineless leaves; but with spines concealed at the base of the leaves. Again, handle with care. Spiny leafed plants will sometimes produce a spineless or almost spineless mutation. In the commercial pineapple *Ananas comosus* cv. 'Smooth Cayenne', the spines are reduced to a few near the tip of the leaf blade.

While tillandsias do not have spiny leaves, some of the smaller growing plants with stiff leaves have very sharp leaf tips; quite capable of penetrating unwary fingers.

One way of germinating bromeliad seed is to place sealed plastic containers (containing the seed and the seed-raising mixture such as a peat and sand combination) inside plastic bags. Humidity, and a certain amount of heat, are "produced" by the plastic bag's use.

An alternative approach is to place a used plastic sheet (or bag) over the base of a standard seed raising tray and place 5 millilitres or so of water on top of it. Then cover the seedling tray with a rigid plastic cover which can be purchased at some large nurseries and hardware stores. The vent on top of the cover can be adjusted to minimise excessive heat build up. I have found this method more convenient to use than the "standard" plastic bag approach.

(Bromeliad seeds need exposure to light to initiate germination. Do not cover the seeds)

Bob Reilly

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
The BSQ Web Page can be accessed at the www.bsq.org.au

Competition Results

May Popular Vote

Novice

First Vriesea 'Royal Hawaiian F2' Second Neoregelia 'Raphael'

P. Blundell J. Green

Intermediate

First Second Vriesea fosteriana v. seideliana 'Rubra' B. Kable

Tillandsia ehlersiana

P. O'dea

Advanced

First

Guzmania sanguinea

J. Higgins

Second Neoregelia 'Proud One'

Y. Daniel

June Popular Vote

Novice

First Second

Guzmania sanguinea Tillandsia 'Curra'

P. Caesar M. Southam

Intermediate

First Second xNeophytum 'Galactic Warrior'

B. Kable B. Kable

Advanced

First Second Neoregelia 'One & Only' Neoregelia 'Grace USA'

Tillandsia kalmbacheri

Y. Daniel Y.Daniel

General Meeting Program

July Slide Show Bruce Dunstan

August Plant Clinic and Identification Bob Reilly and Nev Ryan

September Conference Report Slide Show Olive Trevor

Mini-Show/Popular Vote/Plant of the Month

July Mini Show - Judges Commentary

August Popular Vote and Plant of the Month Viv Duncan

Beginners Class

July What is a Bromeliad Greg Aizlewood

August Growing Grey Leafed Tillandsias Bob Reilly

Bus Trips and Field Days Calender 2004

All enquiries, bookings and deposits where applicable, for the Field Days and Bus Trips should be directed to:-

Nancy Kickbusch, BSQ Field Day Co-Coordinator. Phone 07 3300 1704

Field Day Bus Trip

Date 28th August 9AM to 12PM

Location: The home of Yves Daniel and Lindsay Gerchow 7 Orme Road, Buderim.

Sales 10 to 11.30 AM only.

Morning Tea: Members please bring a plate

Lunch 12.30 PM at the Waterfront Hotel, Bli Bli.

After lunch, *for bus patrons only*, a surprise visit to a lovely garden and nursery.

The bus will leave from the Uniting Church Hall, 52 Merthyr Road, New Farm at 7.30 AM with a pickup at the BIG W, Gympie & Webster Roads, Chermside at 7.45 AM. Return about 5.30PM

The total cost is expected to be \$25.00. Contact Nancy to reserve a seat. Payment at the July general meeting.

Field Day

The last field day for the year will be held on the 30th of October at the Olive Branch, the home of Olive and Len Trevor, 232 Canvey Road, Upper Kedron from 9 AM to 2 PM, commencing with morning tea.

Members please bring a plate. Plant sales from 10AM to 12PM only.

Lunch will commence at 12.30PM

There will be talks on various aspects of bromeliad culture and Conducted Tours of the bush houses.

The Bromeliad Society of Queensland Inc.

Society Badges

ARE NOW AVAILABLE \$5.00 EACH

CONTACT MRS. FRAN DAWSON

COMBINED SHOW Bromeliad Competition Results

O I DE OIL	ov Bromenad Competition	resuits
Class 1. Tillandsia		
	. ehlersiana	B. Reilly
	. funckiana	M. Windsor.
Class 2. Tillandsia	in Flower or Spike	IVI. VV IIIGSOI.
	Romeo'	D D-31-
The second secon		B. Reilly
	lindenii	R.& M. Dilling
Class 3. Vriesea in		
First V	r. 'Tiffany'	R.& M. Dilling
Second V	r. 'Charlotte'	R.& M. Dilling
Class 4. Vriesea Do	ecorative Foliage	
	r. (hieroglyphica x fosteriana)	O. Trevor
Second V	r. fenestralis	P. Blundell
Third V	r fosteriana Red Chestnut'	R.&M. Dilling
Class 5. Guzmania	fuz. sanguinea 'Tricolour' fuz. 'Denise' fuz. 'Decora'	r.com, Dining
First G	juz sanguinea 'Tricolour'	O. Trevor
Second G	Juz 'Denise'	R.& M. Dilling
Third G	uz. 'Decora'	R.& M. Dilling
Class 6. Other Tilla	andsioideae	R.& W. Dilling
	o Entries	
Class 7. Other Tilla	andsioideae in Flower or Spike	
N	o entries	
Class 8. Cryptanth	ius .	
First C.	. zonatus . 'Glory Be' . 'Black Mystic'	R. Paulsen
Second C .	. 'Glory Be'	R. Paulsen
Third C .	. 'Black Mystic'	R. Paulsen
Class 9. Billbergia		
First Bi	ill. 'Hallelujah'	A.& P. James
Second Bi	ill. 'Damingos Martins'	R.& M. Dilling
Third Bi	ill. 'Hallelujah' ill. 'Damingos Martins' ill. 'Katherine Wilson'	P. O'Dea
Class 10. Aechmea	part, consister area or are	
First A	e. Fredrika Variegated'	R.& M. Dilling
Second Ae	e. 'Ensign'	N. Kickbusch
Class 11. Neoregel	ia 200 mm Minimum Diameter eo. 'Jaws'	
First No.	eo. 'Jaws'	Y. Daniel
Second No.	eo. concentrica hybrid	O. Trevor
Class 12 Name 1	eo. Dark Glory	A.& P. James
Eirot Neoregen	eo. 'Dark Glory' ia 200 mm Maximum Diameter eo. 'Alley Cat' eo. 'Cheers'	7 0 D ** 1
Second M	eo. Alley Cat	I.&.D. Hole
Third No	eo. 'Mon Petite'	O. Trevor
Class 13. Nidulariu	eo. Mon Fettle	A.& P. James
	o entries	
Class 14. Any Other		
First O	uesnelia edmundoi 'Rugrae'	R. Reilly
	melioideae in flower or spike	K. Kemy
No.	o entries	
Class 16. Hechtia o	r Dyckia	
First D .	'Silver Plate'	R. Paulsen
Second D .	'Silver Plate' 'Silver Moon'	R. Paulsen
	'Sun Tan'	R. Paulsen
D.	Com I wil	K. Faulsell

Class 17. Pitcaimia	
First Pepinia sanguinea	O. Trevor
Class 18. Other Pitcairnioideae	
First Deuterocohnia brevifolia	M. Dalton
Class 19. Any Intergeneric	Ο Τ
First xNeophytum 'Galactic Warrior'	O. Trevor
Second x Guzvriesea 'Purple Rain'	O. Trevor
Class 20. Specimen Any genus - 3 or more connected mate First Neoregelia (abendrothii x pauciflora)	C. Basic
Second Billbergia 'Hallelujah'	R.& M. Dilling
Second Billbergia 'Hallelujah' Third Tillandsia pretiosa	R.&.M. Dilling
Class 21. Novice Mary Grasselli Award Any Genus	·
First Cryptanthus 'Red Bird' Second Vriesea 'Splenereit' Third Vriesea fosteriana 'Red Chestnut'	R. Mann
Second Vriesea 'Splenereit'	P. Blundell
Third Vriesea fosteriana 'Red Chestnut'	P Blundell
Class 22. Bromeliad in a Decorative Pot	I.& D. Hole
First Neoregelia pauciflora Yellow form Second Neoregelia 'Jade Star' Third Orthophytum Agans	I.& D. Hole
Third Orthophyton vagans	E. Rees
Class 23. Bromeliad on a Decorative Mounting	
First Tillandsia	P. O'Dea
Second Tillandsia magnusiana	P. O'Dea
Third Tillandsia gardneri	P. O'Dea
Third Tillandsia gardneri Class 24. Miniature Bromeliad Display First Tillandsia Tree	A.& P. James
Class 25. Novelty Bromeliad Display Less than I metre in a	any dimension
First 'Little Treasures'	O. Trevor
Second 'Shop Till You Drop'	O. Trevor
Class 26. Floral Display Cut bromeliad flowers, berries, t	practs or leaves.
No entries	
Class 27. Floral Display One inflorescence. Foliage accessor First Aechmea 'Shining Light'	ies only.
First Aecomed Snining Light	E. Rees
Class 28. Best Tillandsioideae Nez Misso Memorial	Tropny
Tillandsia sanguinea 'Tricolour'	Olive Trevor
Class 29. Best Bromelioideae Hudson Perpetual T	Crophy
Neoregelia 'Alley Cat'	I. & D. Hole
Class 30. Best Cryptanthus Grace Goode Perpetual	Trophy
	R. Paulsen
Cryptanthus zonatus	K. Paulsell
Class 31. Best Pitcairnioideae	
Deuterocohnia brevifolia	M. Dalton
Class 32 Reserve Champion Bromeliad	
Deuterocohnia brevifolia	M. Dalton
	14, Danon
Class 33 Champion Bromeliad	
Guzmania sanguinea Tricolour'	O. Trevor
Tom Schofield Memorial Award	
Tillandsia kalmbacheri	B. Kable

The Editors Desk

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

Inc. or of the Editor.

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

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With the change in format and increase in size of *Bromeliaceae*, additional copy is needed for each issue. To assist in compiling the journal, it is helpful to the editor if copy is substantially in one page units. The usable page size is 177 x 120 mm. In 11 point Times New Roman font, this gives about 39 lines and 390 words with normal text and paragraphing.

Photographs for the front or rear covers are approximately A5 in size; and should be the standard 150 x 100 mm print in portrait orientation. For digital photos, a resolution of 4 mega pixels is required. Centre page photos can be reduced from A5; or A6 in landscape orientation at 2 mega pixels. With four photos per page, this equates to A7 size, at least 1.2 mega pixels and in portrait orientation. Digital photos should be in JPEG or TIFF file format. Copying printed photos leads to loss of quality.

See Doug Upton's Notes on photographing plants generally; and for inclusion in *Bromeliaceae*.

There were two magnificent specimens of *Deuterocohnia brevifolia* at the Combined Show. Observations on these plants indicated that when potting on to create a specimen plant, the base of these plants should be set level with the edge of the container. Setting the plant lower in the pot (about 20mm is usual for most plants) leads to distortion of the shape when the mound reaches the container edge.

This plant and *Deuterocohnia lorentziana* both have the same habit of growth. After flowering, each crown offsets to produce 2-4 new growths while remaining attached to the original stem; thus generating the characteristic mounded appearance.

Photographs, Photographs and More Photographs

Bromeliaceae is always in need of colour photographs for the pages of each Journal. Once again, members are asked not to be shy about sending contributions. We all grow beautiful bromeliads and there is no better way to brag about our ability than to have photographed plants published in *Bromeliaceae*.

A few simple hints will ensure that this will happen.

The photographs should be correctly named and accompanied by cultural, and habitat notes where applicable. The most common mistakes made by people are to have a distracting background., the main subject not correctly focussed, and not "filling the photograph". Sharp focus of the main subject is especially important in close-up photos.

Try to keep as much of the plant's pot out of the photograph as far as possible as it detracts from the plant's appearance.

The front and back covers of *Bromeliaceae* require photographs in 'portrait' mode. For these photos, an aspect ratio (height: width) of 16:12 is ideal. (The standard colour print (150 x 100 mm) is close enough to allow slight adjustment without appreciable distortion.) Single specimen photos with high impact are required.

For the centre and other pages, 'landscape' photographs are required when printing two to a page. In this format, the 'width' is greater than the 'height'. With four photographs per page, the 'portrait' format is required. For photos on non-cover pages, group plantings, landscape features etc. are very acceptable provided it is relevant to the article.

For later this year, an article on bromeliad oddities is being planned. Should any of your bromeliads develop an abnormal growth habit or other unusual features, then *Bromeliaceae* would like to hear about it: with photos and accompanying notes.

Doug Upton

Good contrast black & white photos can also be used to illustrate articles. B/W line drawings of plants or plant segments would also be most welcome.

The editor is particularly interested in contributions where one photo shows the complete plant and a second photo shows a close up with details of the inflorescence, or of individual flowers.

There is a great article on 'Photographing Bromeliads' by John Catlin in the March 2004 issue of Bromelia Post, the Newsletter of the Central Coast NSW Bromeliad Society INC. Available in our library.

Neoregelia 'Princess Caroline'

with notes on Neo. carolinae, princeps, and carolinae 'Princeps'

hese last three names have been around for many many years be it in Australia, New Zealand or USA, but have they been linked to the proper plants? We can ascertain the identity of the first two names because they are recognised species with formal descriptions and herbarium specimens. The third name is a made-up one that nobody has tried to properly identify or to give a cultivar name. We hope to rectify this with this article.

Neoregelia carolinae has been in cultivation for over 100 years and most plants grown are of horticultural origin without a pedigree where the plant can be traced to a habitat environment. As Harry Luther pointed out in an article in J. Brom. Soc. 1983 pages 191-4, 223-4 this is well represented in herbaria and cultivation; quite variable in size and coloration. Many cultivated forms are highly selected and may be hybrids. My own experience is that the only ones I have which have a pedigree are those grown from seed actually from plants in the wild in SE Brazil and NOT Brazilian nurseries!

Neoregelia princeps forma princeps. This is what Harry had to say in 1983. "This is the most misapplied name in the genus; all material so named I have examined is N. carolinae. The true N. princeps is represented by two very similar clones that are only now beginning to spread in horticulture." Remember this was Harry's experience in the USA; but we had had direct importation of several species to Australia from Brazil. This had me searching for the elusive N. princeps.

All the plants I acquired with this name were more closely linked to N. carolinae after I had done my dissecting. But I do have several aff princeps!!(Note that aff. is used by taxonomists for those plants that nearly fit the description BUT). These include a plant I got as N. farinosa (Bill Morris helped me with this one!) another as N. macrosepala from Queensland and another as N. pineliana from Sydney. All were what I would consider reliable sources but so far no luck. Remember one of the key factors to look for is red sepals. A plant exhibited at the 14th World Conference as Neoregelia princeps by Keith Smith is not this species either!

Do not despair if your label has *N. princeps* on the label unless you are like me, and love to dissect or you want to send pieces to the Identification centre at Marie Selby Gardens in Florida. However if someone from Brazil feels sure they have the true species it would be

good to get a good photograph of it.

Neoregelia carolinae (var princeps) or 'Princeps'. Plants with this name have been grown in Australia and New Zealand (and the USA?) since probably the 1960's but the name has never been officially queried. If you bought this plant you could have been advised "It is not really a carolinae or a princeps!"

There is no reference to this name in any cultivar listing or taxonomical listing or the Journal of the Bromeliad Society International although there is a photograph of a *Neoregelia carolinae* 'Princeps' in Blooming Bromeliads by Baensch (1994) on page 119. Baensch said it was a trade name but I have been unable to trace this name in any of the old catalogues I have. Dennis Cathcart of Tropiflora has advised me that he does have this plant but in two forms, one with a thinner leaf than the other. The plot thickens! Is it a *N. carolinae* or a *N. princeps*? Growers assure me this plant is different to both! I have never grown it and have tried for years to get a photograph of it so we could resolve the matter.

Gerry Stansfield in New Zealand has come to the rescue by taking the inflorescence to pieces and we can find no link to either species which makes the origin of its name all the more mysterious. It must be of hybrid origin! He has also supplied me with a photograph of this plant which we must treat as a cultivar. Clearly the name 'carolinae princeps' is misleading and we do not know who coined the name many years ago, so a replacement name should be similar. We decided that 'Princess Caroline' would solve the problem. So if you are growing this plant please change the name. A photo will be linked to the Bromeliad Cultivar Register on the BSI website.

This matter of naming has taken a certain urgency because Gerry has stabilised an albomarginate sport of 'Princess Caroline' which he will be calling 'Princess Caroline Superb'

Derek Butcher

Worms---You might believe worms are good. In the garden -yes—but in pots—no. They build mud castles in the drainage outlets and block the same. They transport soil out of the pots. They are a disaster in pots where you are germinating seeds. I now treat my seed mix by wetting it and placing it in the microwave oven. With pot plants—best to repot and throw worms into the compost heap where they can do their job. Dunking the pots in lime water* gets rid of them quickly.

Rob Smythe

^{*} A weak solution of slaked lime (Calcium Hydroxide)

A-GARDEN-A-FAIR: 2004

The Society participated in the Queensland Council of Garden Clubs' 2004 A-Garden-A-Fair. Some highlights of the show were:

- All of the 20 or so participating societies had colourful displays. As
 well as our own, the displays which particularly impressed me were
 those by: Queensland Begonia Society, the African Violet Society, the
 International Cordyline Society, the Bimer Bonsai Club, the Queensland Gerbera Club, and the Cactus and Succulent Society of Queensland.
- The Society's display was "created" by Bob Cross, John Higgins, Nancy Kickbusch, and Beryl and Jim Batchelor. The display made effective use of silver-leaved tillandsias, guzmanias, decorative-foliage vrieseas, aechmeas, and neoregelias.
- Some of the rarer plants in the display were: a variegated *Tillandsia bulbosa*, flowering plants of *T. rothii* and *T. kalmbacheri*, some unusual cultivars and hybrids of *Vriesea fosteriana*, and a beautiful *Guzmania* 'Neon'.
- The show had competitive sections for a range of plants and other exhibits. In the bromeliads, first prize was won by a *V. fosteriana* 'Speckles', with second place going to a *Neoregelia* hybrid. Perhaps the most colourful entrant was a large bowl full of flowering *Aechmea recurvata* plants.
- In the "open" exhibits, it was pleasing to see bromeliads winning prizes. For example, a clump of a *T. caput medusae* hybrid won second prize in the hanging plants' section.

The plant sales area attracted strong interest from people attending the show. Bromeliads sold well.

Thanks are due to those Society members who helped out in a number of ways over the weekend. They included: Jim and Beryl Batchelor, Bob Cross, Ruth and John Higgins, and Nancy Kickbusch.

Bob Reilly

Some people are concerned that mosquitoes will breed in the centres of tank-type bromeliads during summer. One way of avoiding this outcome, is to use a hose to flush the water out of each plant's tank, once a week during summer. This action gives the mosquitoes insufficient time to breed, as well as helping to water the plants and minimise the possible "build-up" of blue-green algae.

Bob Reilly

BROMELIADS XIII CONFERENCE BRISBANE, AUSTRALIA OCTOBER 14 – 17, 2005 NEWSLETTER # 4

There have been considerable expressions of interest in the conference especially from our friends in New Zealand. We may be looking at one of the largest local conferences ever. Registration forms will be sent out in late 2004 or early 2005.

We are both pleased and excited to announce that our overseas speakers are *Mr. David Shiigi* from Hawaii and *Mr. Bruno Rezende Silva* from Brazil. Both speakers will deliver four talks during the conference covering a wide range of topics. They will be supported by a number of excellent local speakers who are currently being approached. More details in our next newsletter. The conference program will be available by the end of the year in time for registrations.

Accommodation bookings will be able to be made directly with conference venue staff. We will advise interested parties when bookings will open but it is not envisaged that this will occur more than six months prior to the commencement of the conference.

Our second raffle was drawn on the weekend at the combined show of the Bromeliad Society of Queensland Inc. and The Cactus and Succulent Society of Queensland Inc. held at the Mt. Coot-tha Botanic Gardens auditorium.

The first prize 'The Bromeliads of Ecuador' Vol. 1 by Jose Manzanares, and the second prize of \$100 worth of bromeliads were both won by The Bromeliad Society of NSW Inc. The third prize of \$50 worth of Bromeliads was won by The Central Coast NSW Bromeliad Society Inc. Congratulations to both societies and a special thanks to everyone who supported the raffle which raised in excess of \$500.

A new raffle will commence in July and will be drawn at our Christmas Party in December. First prize was kindly donated by Lyn Hudson from Cairns and is a copy of Blooming Bromeliads (German edition) by Baensch. It is accompanied by an English translation. As you would be aware, the English version of this major work of bromeliads in cultivation sold out years ago.

The conference committee would like to call for expressions of interest from those interested parties that wish to have a display at the conference. This offer is extended to individuals, commercial enterprises and other bromeliad societies. Once the level of interest is gauged, additional

details and requests for further information will be forwarded to those interested parties.

Enquiries to:

Bromeliads XIII Conference Committee C/O Bromeliad Society of Queensland Inc. P.O. Box 565 Fortitude Valley, QLD 4006 AUSTRALIA

Kindest Regards, Bromeliads XIII Conference Committee – 17th June, 2004.

Nomenclature and the use of Plant Names

The protocol for the recording of plant names is well documented. Genus names capitalised and rendered in italics and the specific (species) names are rendered in italics but are not capitalised i.e. *Billbergia nutans*.

Hybrids use a capitalised and italic genus name; but the specific hybrid name is capitalised, printed in plain text and enclosed in single quotes. i.e. *Billbergia* 'Catherine Wilson'.

The varietal name of a species is rendered in italics with no quotes. i.e. *Pitcairnia flammea* var. *roezlii* (sometimes less correctly v.)

The cultivar name of a species is rendered in capitalised plain text enclosed in single quotes. *Tillandsia bulbosa* cv. '11.30'*. Often written less correctly without the 'cv'. 'cv.' being an abbreviation signifying 'cultivated variety'.

Intergeneric names are written with an 'x' preceding the intergeneric name with the specific name as for hybrids. i.e. xNeophytum "Galactic Warrior'.

The guidelines for rendering plant names in text was more difficult to determine but the following guidelines came from the Brisbane Herbarium. In text, the convention is as above for species, hybrids and intergenerics. Where a genus name is used alone, it is capitalised and rendered in italics. If the genus name is used as a collective noun, then it is not capitalised or italicised. Generic names which are pluralised, i.e. guzmanias, billbergias, etc. are not capitalised except at the start of a sentence.

* A bad pun. This clone was not as dark as the one I called midnight !!

FOLIAGE VRIESEAS Part 2

Vriesea glutinosa. Many of the plants labelled as glutinosa are actually hybrids of this species. The 60 cm long, 7 cm wide, leaves are quite erect in appearance and form a fairly tight rosette, about 50 cm wide and 70 cm tall. The leaves are light green in colour with wide maroon bands, usually on the leaves' tower surface.

The multi-branched inflorescence can reach 120 cm in length and rises well above the plant's centre. Each branch is 30 to 40 cm long, about 7 cm wide, and a "glowing" red to orange in colour. However, there appears to be a lot of variation between different plants (clones). The plant produces adventitious offsets, as well as being an "upper pupper". There is a variegated form which is about half the size of the non-variegated plant. It is very rare.

hieroglyphica. Up to 40 tightly packed leaves, 10 cm across, form a large rosette up to 150 cm in diameter and 100 cm tall. The shiny, bright green leaves are marked with wavy bands which are black to purple in colour. Both leaf surfaces are marked in this manner. The 100 cm high branched flower spike has up to 50 yellow-petalled flowers scattered along it. This plant can be quite particular as to its growing conditions and even experienced growers can have difficulty with it. However, it thrives once located in a spot which meets its requirements.

malzinei About 15 leaves, 4cm wide at their base, from a semi-erect rosette about 50cm wide. The leaves' lower surfaces are coloured purplered, and, in some plants, the upper surface is a similar colour, especially at flowering. In other plants, the leaves' upper surface is green. The 1 cm wide, rounded flower spike, about 30 cm long, rises well above the plant's leaves. Colouration of the spike can be yellow, brown or bright red. The petals, which protrude about 2 cm from the spike are creamy-white.

ospinae. This plant readily forms a clump within two years. Each plant has a distinct stem covered in about 30 leaves which are about 5 cm wide at their base. The plant's width is about 50 cm. Both leaf surfaces have a network of thin dark green lines and small "splotches", on a light green background. The inflorescence is a multi-branched spike. Each branch is yellow in colour, about 30 cm long and 3 cm wide. The offsets occur along the plant's stem.

ospinae v. gruberi. This is quite a different plant in appearance to ospinae. The 10 cm wide leaves form a tank-type rosette up to 70 cm wide. The light green leaves are marked with dark green to dark brown bands and lines. The dark brown colour is more pronounced on the

leaves' lower surfaces. The inflorescence is similar to that of ospinae.

platynema v. variegata. Like Vr. fosteriana, this species has been subject to considerable selection by nurseries. There are seven botanically - recognised varieties, and many more labelled incorrectly as other varieties. Typically, the plant has about 20 leaves, 7 cm wide at their base forming a rosette about 60 cm across. The ends of the leaves have large, dark red tips. The underside of each leaf is maroon-red in colour, while the upper surface has faint wavy green lines on a green background. In good light, the leaves' upper surface becomes suffused with red. The inflorescence is similar to that of Vr. fosteriana.

This species, along with *Vr. fosteriana*, has been used extensively in hybridisation programs.

saundersii. About 20, 4 cm wide, tightly packed leaves form a flat rosette about 50 cm wide and 30 cm high. The blue green, succulent-like leaves, are densely spotted with small maroon spots on their lower surface and lightly spotted on their upper surface. A branched, arching spike about 30 cm long forms at the end of a 30 cm long floral scape. The 50 or so flowers are scattered along the spike. This a hardy pant which grows well with little attention.

saundersii hybrid (variegated form). (This plant may be the same as the one recently registered as 'Highway Beauty') About 30 leaves, 4 cm wide, form an open, tank-type, rosette about 70 cm wide and 30 cm high. A broad, cream coloured stripe runs length-wise up the centre of each dark green leaf. Each leaf is "flushed with red" for about half its length, commencing at the leaf's base. (In young plants, the percentage of leaves coloured in this manner can reach 80 to 100%). A multi-branched, 30 cm long inflorescence, with about 30 flowers spaced along it, occurs at the end of a 50 cm floral scape.

Unlike some variegated plants, the offsets nearly all have good variegation. The plant is a "generous" offsetter, with my specimen producing five offsets without any special attention.

splendens. A species which has been the subject of intensive breeding by European nurseries. This has taken place over 150 years. Some of the named variations include: 'Major', 'Flammendes Schwert', 'Chantrierii', and 'Splenereit'.

Typically, about 15 leaves form an erect, relatively open rosette up to 60 cm wide and 50 cm high. The leaves are light green to dark green in colour, with dark green to maroon bands on both or only the lower, leaf surface. The inflorescence consists of a sword shaped inflorescence up to



Vr. ospinae v. gruberi



Vr. (glutinosa x splendens)



Vr. hieroglyphica



Vr. fenestralis

Bromeliaceae

JULY/AUGUST 2004



Vr. fosteriana cv. 'Bianca'



Vr. glutinosa



Vr. malzinei



Vr. sucrei

70 cm long and 7 cm wide. They are bright red to orange in colour. Some inflorescences are multi-branched. This species is an "upper-pupper".

This plant can be cold sensitive. There are several variegated forms of

this species, although they are quite rare.

sucrei. Up to 30, 3 cm wide, leaves form a 25 cm wide rosette, about 15 cm high. The leaves' upper surface are coloured a leathery green, while the lower sides are dark purple. When the plant is held up to the light, it almost "glows".

The 20 to 30 cm long, red, sword-shaped inflorescence occurs at the end of a 30 cm floral scape. The flowers have yellow petals. About four offsets are produced at the plant's base. There is a variegated form of this

species, but it is very rare.

If you wish to start a collection of these Vrieseas, I suggest you start with bleheriae, fosteriana, saundersii, splendens and sucrei. However, all of the plants described in this article are well worth growing, although I suggest leaving the variegated forms until you have gained some experience with the non-variegated types.

I thank Olive Trevor for her help in preparing this article, and Doug

Upton for taking the photographs.

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Bromeliads appreciate good air circulation. However, they do not appreciate the cold, strong westerly winds usually experienced during winter. Assuming they are in a shadehouse, one solution is to temporarily cover the western wall with thick plastic. This material is sold, by the lineal metre, in most hardware stores, and is usually 1.8 metres wide.

Some bromeliads are grown in hanging containers of various types or, in the case of some tillandsias, grown on a stick which is hung from a roof support. When these plants flower, you may need to lower them 30 to 60 cm to give the inflorescence sufficient space to develop. Otherwise, a malformed inflorescence can result, which spoils the plant's appearance.

Bob Reilly

2004 COMBINED SHOW REPORT

The show was held on 12/13 June 2004 at the Mt Coot-tha Botanic Gardens' auditorium. Once again, the show was an outstanding success.

The displays of bromeliads, cacti, and other succulents were of a high standard. Our Society's display consisted of a bromeliad "tree", which was mainly "populated" by a variety of grey-leaved tillandsias, surrounded by an eye-catching display of aechmeas, alcantareas, guzmanias, neoregelias, and vrieseas.

Outstanding plants in the display included: Aechmea biflorus, Aechmea 'Blue Tango', Alcantarea imperalis v. rubra, Quesnelia 'Tim Plowman', and Tillandsia kalmbacheri.

In the auditorium's foyer, the Gold Coast Succulent and Bromeliad Society presented a very colourful display of bromeliads. Of particular interest were the beautiful specimens of: *Alcantarea imperalis* v. *rubra*, *Neoregelia* 'Jaws' and *Neoregelia* 'Johannis de Rolf'.

Over 500 varieties/hybrids of bromeliads, as well as a wide range of cacti and other succulents, were on sale. This range of choice continued throughout most of the weekend, due to the willingness of plant vendors to periodically restock the sales' benches with plants. Members of the public, as well as society members, clearly appreciated the opportunity to buy these plants.

People were asked how they became aware of the show. A significant number of them found out about it through the activities of the Sunshine Coast Bromeliad Society, the Gold Coast Succulent and Bromeliad Society, and the International Cordyline Society. Their support is much appreciated.

The bromeliad competition was well supported with nearly 100 entries in 19 classes. For myself, the "stand-out" plant was a flowering specimen of *Guzmania sanguinea v. tricolor*. It won *Champion Bromeliad of the Show*, and is owned by Olive Trevor. Another interesting plant was a beautiful specimen of *Deuterocohnia* (formerly *Abromeitiella*) brevifolia. This specimen would have taken many years to grow. It won *Best Pitcairnioideae*—and Reserve Champion- of the show, and is owned by Marie D'Alton.

People can purchase books about bromeliads at the show. A popular publication this year was the recently revised, and completely rewritten, booklet published by the Bromeliad Society International titled: 'Bromeliads: A Cultural Manual.

Thanks are due to all those people who performed the many jobs needed for a successful show. Over 50 society members helped out in various ways, and their support is greatly appreciated.

Bob Reilly

Notes from the 2004 Judging Panel

- It was good to see entries in the Novice Class this year. The plants'
 quality was high, and the judges had great difficulty in separating
 the entries.
- The Neoregelia classes, decorative-foliage Vriesea class, and the Guzmania class, were all well supported with many excellent entries.
- There is plenty of space available for entries, so do not feel shy about entering plants.
- There were a number of classes in which no plants were entered. They included: *Other Tillandsioideae* (both with, and without flowers), and *Nidularium*. Some other classes had only one or two entries. If you enter a plant in these classes next year, you stand a good chance of winning a prize!

Olive Trevor

Now is the time for members to think not only of next year's Combined Show competition but also of the **Conference Competition**. Next years Combined Show Competition should be considered as a curtain raiser for the Conference Competition.

If you don't have a large collection, then select a few plants for special attention. If you do it NOW, the plants will be in prime condition next October. You only need **one plant** in **top condition**. Ed.

Removing offsets during winter is usually undesirable because of the growth setback they experience. However, if you have access to some mechanism, for example a "heated soil bed", for providing bottom heat, offsets can be successfully removed in winter.

Olive Trevor notes that offsets allowed to grow too large before removal can have a distorted shape which may not grow out at maturity.

Bob Reilly

Combined Show 2004



Bob's Pride BSQ Display



Tillandsia kalmbacheri



Neoregelia 'Jaws'

Plant Breeder's Rights & Patents Part 2

- (1) **Distinctness**: quantitative and qualitative differences between the new and existing varieties must be objectively established and recorded. Morphological characteristics, especially those least affected by environmental factors, are preferred. However, tests such as comparative DNA or protein profiles are acceptable as supporting evidence. Clear repeatable varietal differences must be demonstrated. Performance attributes can also be included as distinguishing characteristics provided they are clear and consistent.
- (2) **Uniformity**: Unless the UPOV technical guideline on the species indicates otherwise, the required standard of uniformity for each type of propagation is set out below:
- (A) <u>In vegetatively-propagated or fully self-pollinated varieties</u>, the number of off-types (plants which do not conform to all the variety's distinctive characteristics) must not exceed the numbers below:

11.	Number of Plants or plant parts measured	Maximum number of Off-Types
i	5	0
	6-35	8 1
	36-82	2
	83-137	3

- (B) For partially self-pollinated varieties, the allowable number of offtypes is doubled.
- (C) In cross-pollinated varieties, a uniformity test based on a comparison of variances is applied. Measured characteristics are considered uniform if their variance is less than 1.6 times the average of the comparator varieties' variances.
- 3. Stability: A variety is deemed stable if it remains true to description after repeated propagation or reproduction. Breeders of varieties propagated from seed need to demonstrate stability by including two generations in the comparative trial (or a separate stability trial). If the variety is to be vegetatively propagated and is uniform, a demonstration of stability is not usually required. The applicant is responsible to ensure the new variety remains true to the description.

Specialised test UPOV guidelines for examining particular genera and cultivar groups are constantly being reviewed, ratified and implemented.

Test growing trials of the new and comparator varieties can take up to 5 years or longer for PBRO Examiners to assess, but normally the whole PBR registration process is about 30 months, unless objections need addressing. Providing certain criteria are met, the PBRO may waive further test trials in Australia if a Report of a DUS test trial conducted under UPOV guidelines and procedures of a new variety granted PBR in a UPOV-Member country overseas is lodged by the applicant or QP. Typically required are an PBRO assessment of whether the most similar VCKs used overseas (including those in Australia) have been included in the overseas trial; if the new overseas variety is so clearly distinct from all Australian VCKs at the time that further DUS test growing is not warranted; if sufficient data, photos and descriptions are available to publish in the Plant Varieties Journal, a statutory procedure for all Australian PBR varieties in both the accepted application and granted phases, to inform the public.

Any objections at any time by a third party must be resolved by mutual agreement or the PBR titleholder and objector should both seek legal advice from intellectual property rights attorneys and advise the PBRO of any court decision. Disputes often centre about the variety's physical ownership which is independent of intellectual property rights. The PBRO does not offer legal advice but if requested may provide court evidence in such cases. If a court objection is upheld, the PBRO may revoke the PBR final grant or cancel the pending application. Potential other legal challenges may be over claims that the new variety is an "essentially derived variety "(EDV) from a pre-existing variety. Genotype (or combination thereof) and phenotype become the issue. Currently the PBRO is required to adjudicate this EDV issue. Mutants (natural or induced) and progeny from selfed seed of a PBR variety are PBR -protected, with certain exemptions or limitations for agricultural crop seed. Any internal issues during the Application /Examination process not resolved between the PBRO and the Applicant may be arbitrated by the independent Administrative Appeals Tribunal. Proof of a Variety's distinctness is a common problem.

When / if the PBRO assesses the new variety and application meet all requirements for the PBR grant, the titleholder (grantee) is notified. Fees must be paid at the appropriate juncture, for the application, examination, full Registration (Certificate) and an annual renewal PBR fee. Other costs are for objections lodged, variation to application, change of assignment (titleholder) and extra administrative requests.

It is not the PBRO's role to assess the usefulness, marketability or aes-

thetics of a new variety--the titleholder formulates his own business plan for his new release. The titleholder may permit other growers to propagate and distribute his new variety by common law contract licence, paying royalties. The PBRO must authorise any request for the PBR Title to change ownership. In Australia, the PBR Title grants legal protection for 20 years for ornamentals (applicable to most bromeliads) and 25 years for trees, crops and vines. One PBR condition is that the general public must have reasonable access to the PBR variety. Once the PBR Title period expires, the plant variety comes solely into the public domain.

The new PBR variety released must have the PBR Logo and variety name on it's label. Required tag wording also is to the effect that the named titleholder has exclusive rights to produce or reproduce the variety (or plant material thereof); condition for propagation; offer for sale, sell, import, export or stock the material for any of the above purposes. In the horticulture industry, professional nurserymen, tissue culture laboratories and wholesale propagators are usually aware of such limitations and may arrange contract licences with the PBR Titleholder.

There are exemption clauses to the above restrictions for any act done in relation to a PBR Variety, which allow growing privately and for noncommercial purposes; for experiments, and for breeding other plant varieties (using the PBR Variety as a seed or pollen parent, or for gene technology). However, amateur growers and Plant Societies who sell PBR Varieties (so labelled or not) without approval from the titleholders are committing a punishable offence, particularly if substantial sales in Australia preceded the alleged violation dates of those PBR Varieties. Only in exceptional circumstances the Court may decree the defendants are deemed not to have been aware of or had reasonable grounds for suspecting the plants in question at the time were PBR Varieties. The PBRO or its website database can provide a current list of PBR Varieties. It is the PBR titleholder's responsibility to monitor any infringements and negotiate with offenders or instigate a lawsuit. Conversely, there are severe penalties for anyone found guilty of wilfully representing a non-PBR Variety as a PBR Variety. Remember, ignorance of the law is no defense against prosecution.

The PBR equivalent in Europe is the Community Plant Variety Rights (CPVRs), effective for all the 15-member European Union (EU) countries. The Community Plant Variety Office (CPVO), with headquarters in Angers, France administers the CPVRs under UPOV guidelines since mid-1995. This European-wide system operates in parallel with national

systems but a new variety's owner cannot exploit simultaneously both a CPVR Variety and a national PVR equivalent --the CPVR takes precedence even if not registered first. A CPVR could not co-exist with a patent on the same variety until recently. Europe has a long, fine tradition in breeding exotic and indigenous cultivars for the floricultural, horticultural and agricultural industries. In the period April 1995-July 2003, 14,810 CPVR applications were filed from EU countries and 2,780 from foreign (non-EU) countries, about 60% of which were ornamental varieties. An ornamental CPVR Variety is protected for 25 years, unless the grantee relinquishes the title or the CPVO revokes the grant.

In U.S.A. the Plant Variety Protection Office (PVPO) in Beltsville, Maryland administers the Plant Variety Protection Act (PVPA), passed in Dec.1970, which covers only new varieties which are sexually reproduced (by seed) or tuber-propagated, mainly agricultural crops, pasture grasses, vegetables and ornamental annuals, all regulated under UPOV guidelines. A plant variety can be doubly protected under a PVP and a Utility Patent for 20 years.

For an asexually-reproduced (vegetatively) variety excluding tubers in U.S.A., a plant patent offers legal protection for 20 years through the U.S. Patent and Trademark Office (USPTO) in Alexandria, Virginia. The variety must be novel, distinct and bred / discovered in a cultivated state (not wild-collected) and drawings / photos filed in the application claim.

Utility Patent applications in U.S.A. require stricter criteria but offer broader coverage for 20 years than other patents, i.e. breeding methods; inbred parental lines; sports, pollen and seed produced by the parents or claimed variety; phenotypic characteristics. The world's first patented bromeliad was M. Foster's Aechmea 'Foster's Favorite' in 1949. Patentable for transgenic and genetically-modified (G.M.) plants are novel cloned genes/expression vectors; methods for producing the transgenic or G.M. plant, which must be novel, involve a non-obvious inventive step and be industrially useful. The claimed invention must not have been publicly disclosed in the "prior art" (i.e. before filing the patent application). Naturally-occurring, essential biological processes are not patentable.

In member countries of the European Patent Office (EPO), the patenting of plant varieties, per se, was prohibited. However, the EPO Board of Appeals later determined that a claim directed to transgenic plants of more than one variety, but not an individual variety, is permissible.

Many countries have both plant patents and PBR (or PVP, CPVR) grants. In the past 15 years these biotechnological advances have had to

be addressed for their impact on both systems, as the research-intensive biotechnical industry has more than tripled in size since 1992. Genetically-modified and transgenic plants became big debate issues for working parties from UPOV countries, International Seed Fund (ISF), World International Property Organization (WIPO), CIOPORA and the International Union of Biological Sciences (IUBS Commission) to review, revise existing laws and formulate new policies to harmonise the two systems. Of particular widespread concern was that plant utility patents protecting gene sequences may effectively "lock up" new varieties, legally preventing their use for further breeding, which is counter-productive to UPOV-type policies and goals. To a degree, landmark case law verdicts in Supreme, Federal or High Courts have redefined the propriety of exceedingly-complex situations in commerce and have influenced international protocol.

There are already in Australia and U.S.A. genetically-modified pineapple crops being field-tested. To date, ornamental new bromeliad cultivars have been bred by "conventional" methods world-wide, albeit producing polyploids and somaclonal variants. How gene technology and national laws in the future will affect bromeliad breeders, their new cultivars and the end users (the gardening public) remains to be seen.

<u>FOOTNOTE</u>: As of December 2003, despite rumours, there have been only 2 PBR bromeliad applications and 2 bromeliad patents within Australia:

- 1. Neoregelia 'Martin'. PBR Grant status from 1 Sept., 2003. Title-holder and breeder: Chester Skotak Jnr. Australian Agent: Futura Promotions Pty. Ltd. (Marlborough Nursery), Wellington Point, Brisbane. Neo. 'Martin' most resembles Neo. 'Ultima', has long stolons, purplish-red cup colour, striated green /cream/ pink pliant foliage on a medium-sized, spreading rosette. It's parentage is N. [carolinae 'lineata' x concentrica] x macwilliamsii. Observe Aussie PBR Rules on this one.
- 2. <u>Neoregelia</u> 'Lila'. Application withdrawn 10 Dec. 2003. Breeder: Grant Groves (Florida). Australian Agent and PBR applicant: Ramm (Yates) Botanicals Pty. Ltd., Tuggerah (central coast New South Wales). Parentage: N. 'Pink Sensation' x ['Passion' x 'Grace']. Any plants in circulation of Neo. 'Lila' with PBR labels attached are invalid. Growers may freely propagate and sell this cultivar.

Both the following patented pineapple crops, genetically-modified by the inventors Jose Botella and Garth Sanewski, are unlikely to be accessible to general growers in the near future:

- 3. ACC synthase genes from pineapples (*Ananas comosus*) to control flowering. Applicant: University of Queensland, conducting field trials until 2007.
- 4. G.M. *Ananas comosus* modified for blackheart reduction and to delay flowering. Applicant: Queensland Dep't. of Primary Industries, conducting field trials until 2008.

<u>Disclaimer.</u> <u>This article is a broad, selective overview only and concerned parties are strongly advised to check the specific current national laws, procedures and requirements from the relevant authorities in their own country.</u>

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Blooming Bromeliads by Ulrich and Ursula Baensch.

You can borrow *Blooming Bromeliads* from the Society's library. The book has 272 pages and over 1,000, high-quality, photographs. Many of these were taken in the Baenschs' garden, called Tropic Beauty, in the Bahamas.

Blooming Bromeliads opens with a description of Tropic Beauty, followed by short biographies of some of the botanists, explorers and nurserymen who have had a significant "impact" on the bromeliad world. The main part of the book deals with individual bromeliads. Mainly species, rather than hybrids, are discussed. There is a photograph (sometimes several) of each plant, accompanied by a very brief description of its appearance, natural habitat and, sometimes, other information. About 200 aechmeas are treated in this manner, 33 billbergias, 36 crytanthus, 64 guzmanias, 80 neoregelias, 21 nidulariums, 11 quesnelias, around 120 tillandsias, over 70 vrieseas and more than 150 of other genera.

A chapter on bromeliads' cultural requirements (largely written from a European/North American perspective) then follows. The origin of many bromeliad names, and a glossary of botanical terms concludes the book.

The material on bromeliads' cultural requirements needs to be treated with some caution, because of the differences between Queensland and European/North American conditions. Another relatively minor drawback with the book's layout is that plants are not presented in alphabetical order. If you are looking for a particular plant, the easiest way is to look up the book's index, and then refer to the text.

Blooming Bromeliads contains photographs of many species which are seldom seen in other publications. For example, the book presents many rare Aechmea, and species from the rarer (in cultivation) genera, such as Canistrum, Hohenbergia, Pitcairnia, and Portea. Overall, this book is well worth reading.

Bob Reilly

Personality Profiles Nancy Kickbusch

You can usually hear Nancy before you see her; that's how she is- a strong outspoken lady who speaks her mind.! You always know where you stand with her. Mind you, she's also "up front" on the work effort too, and does her share, and more, for the Bromeliad Society.

Nancy was born in Kingaroy but spent most of her formative years on a farm at Tairo until she was sixteen. There is a younger sister and brother, five half sisters and a half brother.

Schooling was by correspondence and Nancy says "It's a bit hard when your young to have to work it out all by your self. On the farm, she helped keep the family vegetable garden. As well, she had her own bantams and sold the eggs. She said "You have to be productive when you're a child in the country". Nancy also loved floristry, cooking and reading.

Nancy's cooking skills led her to a job with the American Consul at Indooroopilly. The place was a hive of activity with parties for 150 guests and lots of interesting people to meet. To do this job, great organizational skills were required and her early training in looking after the family shopping and paying household bills stood her in good stead. Since she was eleven years old, her mother had sent her to Maryborough by train to conduct the family business.

Nancy started nursing at the Murgon Hospital and eventually at Wellington point to continue her nursing career. She met her husband John just before her 21st birthday and married a year later; and now has two sons, one grandchild and another on the way. Nancy has been on her own for the past 15 years. She doesn't get lonely as she's very outgoing, loves meeting people from all walks of life; and loves being an active member of BSQ, The International Cordyline Society, and the Rare Fruits Society.

Her philosophy of life is based is based on a Christian outlook "Love one another and don't hold a grudge". Nancy loves doing things for people. "Just be yourself – and do what you believe to be right".

Her love of bromeliads began just after she was married. Her mother was given a 'matchstick plant' as they were called due to the shape of he flowers (*Aechmea gamosepala*), and Nancy was fascinated by it. Then her mother was given a *Billbergia* with a 'torch' flower (probably *pyramidalis*). Nancy was even more fascinated and started to look for them herself and her search led her to the markets at Cloudland where she met Len & Olive Trevor and Laurie & Thelma Muller. When Nancy's sister saw these wonderful plants, she too wanted to collect them and it became a big family interest.

When Nancy first joined the Society 20 years ago, it wasn't very big. Others who were members then and are still around include Nev Ryan (who started her love of Tillandsias) and Peter Paroz. Her favourites are the Neoregelias that are red coloured, especially the red and green spotted 'Bob' bred by Bob Larnach; and 'Grace' from the Grace Goode stable.

The biggest disappointment Nancy has had with her bromeliads was when she went away for two weeks and the neighbours built a new fence. It wasn't the fence that was the problem but the creosote used to paint it. When the palings were cut to length, the creosote coated sawdust fell into the cups of Nancy's prized bromeliads which were lined up along the fence. When Nancy arrived home, the plants looked very sick and a short time later all died. With a heavy heart, she put them in a chaff bag and took them to the tip.

At the present time, Nancy wears several Society hats:- Sales Steward, Co-ordinator of Bus Trips and Field Days, and Plant Sales. These are all run in Nancy's inimitable style—highly organised, efficient and methodical. She is happy to work on her own; as she says "If you want something done properly, Do it yourself".

One of the most interesting field days Nancy reckons was to Linda Percival's property at Bells Bridge near Gympie. It was a lovely day; and one of the highlights was an 'old timer' who spoke about the early days of timber getting and cutting.

Nancy loves organising bus trips (the program for 2004 was listed in the previous issue of *Bromeliaceae*)

When asked about advise for newcomers to the Society, she said "If you are really interested in growing plants, take in a job in the Club. That's how you meet other members who are experienced and will gladly you advise on growing your favourite plants. Be committed and involved, it's more satisfying".

As she walked around her garden, she said "I love all my plants".

Yes, Nancy is a very committed BSQ member who gives her 'all'. There are always very few members who are the backbone of a club and Nancy is indeed one of the strong vertebra!

Anne McBurnie

Dead leaves are usually easy to remove by gently pulling them, and moving the leaf from side to side at the same time. Living leaves may prove difficult to remove using this technique. In such cases, split the leaf in half by running a knife along its entire length. Then apply the pulling/moving technique used for dead leaves.

Bob Reilly

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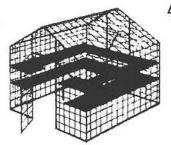
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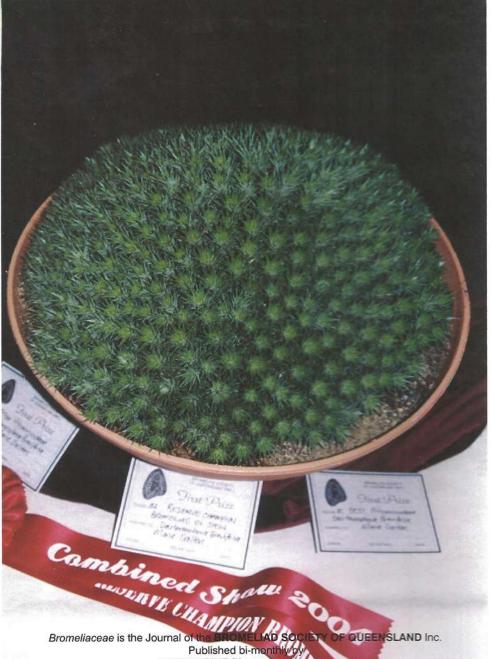


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