

Bromeliaceae



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Front Cover: *Vriesea fenistralis x carinata* F2 Photo by Ross Stenhouse
Rear Cover : *Neoregelia* 'Mini Skirt' Photo by Ross Stenhouse

Contents

THE 2006 PRESIDENT'S REPORT.....	4
THE PRESIDENT'S REPORT.....	4
PASSION IS JUST A WORD	5
HOME REMEDIES FOR PLANT PESTS.....	6
THE EDITOR'S DESK.....	7
CUTANEOUS SPOROTRICHOSIS	8
ONE DAY IN THE GARDEN.....	11
VRIESEA MORRENI OR GREEN ON GREEN	19
NIDULARIUM 'ORANGE INNOCENT'	21
AECHMEA NUDICAULIS	21
DO POSSUMS EAT BROMS?.....	22
DO WE NEED A "POPULATION POLICY FOR S. E. QUEENSLAND".....	23
GROWING FROM SEED CAN BE FUN.....	25
THE TROUBLE WITH ORTHOPHYTUMS.....	27
A 'PLANT WITH ITS OWN BUILT-IN TANK'.....	28
BROMELIAD BROMIDIUMS	28
CAN YOU FERTILIZE SEEDLINGS?.....	28
ORCHIDS & DIGITAL PHOTOGRAPHY: TIPS FOR THE BEGINNER.....	30
ADVANCED DIGITAL PHOTOGRAPHY	36
KITSCH OR CULTURE	38
MICROTIPS: DIVIDING TERRESTRIALS	38
TO FEED OR NOT TO FEED	40
THE BSQ WEB SITE	40
SPECULATION ON THE STARTING OF SIDE SHOOTS	41
IN THE NEXT ISSUE	41
WOT'S IN THE CONFERENCE CAULDRON?	42
WHAT ARE THE JUDGES LOOKING FOR?	43
GREX, CULTIVAR AND PLANT REGISTRATION.....	44
SOCIETY FIELD DAY	45
NAMES TO BE CHANGED.....	45
LIGHT AND COLOUR	46
CALENDAR OF EVENTS.....	46
TRAVELLING UP TOWNSVILLE WAY?	46
PLANT OF THE MONTH PROGRAMME FOR 2007.....	47

Books For Sale

The Society has the following books for sale:

• Starting with Bromeliads	\$18
• Pitcher Plants of the Americas	\$60
• Bromeliads: A Cultural Manual	\$5
• Judges Handbook by BSI	\$34
• Back Copies of Bromeliaceae (2005, 2006 Editions)	\$4
• Bromeliads for the Contemporary Garden by Andrew Steens	\$36
• Bromeliads: Next Generation by Shane Zaghini	\$33

Postage and package extra. Unfortunately we cannot supply overseas orders. Please phone the Librarian, Mrs Evelyn Rees (07) 3355 0432 to order books.

The 2006 President's Report

by Bob Reilly

Last year was a very successful one for the Society. In addition to our normal range of activities such as field days and the like, we:

- donated a large range of bromeliad books to the State Library of Queensland which can be borrowed by people throughout Queensland through their local library;
- published "Starting with Bromeliads". This book has been well received by other Australian bromeliad societies, while a United States society wishes to buy 500 copies;
- made substantial donations to several new bromeliad societies;
- are exchanging journals with over 50 bromeliad and other plant societies;
- have a record membership, which is growing at the rate of around 10 per month;

All of these achievements would not be possible without the efforts of over 80 volunteers, I thank every one of them for their efforts, as well as the wider public who support our bromeliad shows.

Unfortunately, there were two events which have not been positive.

First, we have been unable to publish the proceedings of the 2005 Conference. While the Management Committee has investigated a number of options to publish the proceedings, they have been unsuccessful. Accordingly, the Committee will be recommending at the February 2007 General Meeting that a \$20 refund be offered to all conference registrants. Depending upon how many registrants take up the offer, this could cost up to \$5,000.

Second, the March 2006 General Meeting asked the Management Committee to consider whether Mr Paroz's membership should be terminated. After investigating several ways of dealing with this issue, the Committee, by a majority decision, voted to terminate Mr Paroz's membership. He can appeal this decision to a General Meeting if he so decides.

Overall though, the past year has been a very positive one. I wish the incoming Committee ever success.

The President's Report

Author: Olive Trevor

As the new president of the Bromeliad Society of Queensland Inc., I wish to thank all members who supported me at the annual general meeting. With guidance from the new committee, I hope to make the monthly meetings both educational and enjoyable with lots of plants and plenty of information to go with them. As well as a great social time, we all should enjoy showing and sharing our plants with other members.

We are a very large society with over 400 members and growing rapidly due to the popularity of our favourite plants. Less than one hundred members attend our monthly meetings with the others relying on this journal for their information and knowledge about the society and all things relating to bromeliads. Our membership cost at this time is fifteen dollars for a single membership and twenty for a family. This covers only a fraction of the cost to run the society and to print copies of our six magazines. The cost of the magazine alone exceeds fifty dollars per year per member. We can only continue to cover these costs while the commission from sales of plants generates many thousands of

dollars. Looking at this from another angle, we can only afford to produce a high quality magazine while we have such dedicated members as our editor, Ross Stenhouse, Bob Reilly and others who do the photography and writing for our magazine. They are very talented people who are prepared to give the many hours, if not days, to produce such a great Bromeliaceae.

Do we ever stop and think why our special plants have become so popular and sought after? The drought has been kind in one way. People have found that their bromeliads did not die as other plants have. It's amazing how they survive and still look great with very little water. This is something I hear from people, day to day, and the same people are looking to grow more in their gardens.

The supply and availability of bromeliads has increased greatly over the years and the plants are now available from specialist nurseries, retail nurseries as well as field days, shows and the trade tables at meeting days. It's great to see the growth in bromeliad groups in Australia with the highest concentration in South East Queensland.

There are many thousands of bromeliads produced by tissue culture and grown in wholesale nurseries as well as the special ones imported from the USA and other countries. These have gradually spread onto the market with more to follow. This is an expensive and long term way of getting new plants.

I would like to encourage as many members as possible to grow from seed - eventually trying some hybridising. This is great fun and you will be surprised at the results you get along the way. We have a group that meets once a month on a regular basis to share seed, plants and knowledge. Also Doug Parkinson, who is in charge of our seed bank, will help with the supply of seed.

Australia has made its mark in the bromeliad world with lots of famous hybrids and

growers. Let's keep up the good work - happy growing to you all

Olive Trevor

Passion is Just a Word

by Lynn Hudson

My Collins Gem says "Passion - intense sexual love, any strong emotion, great enthusiasm".

Wow, that covers lotsa stuff! In the interest of secrets we will leave out the first part!

My *Neoregelia* 'Passion' has some of the other mentioned effects.

My Bromeliad Cultivar Registry says *Neoregelia* 'Passion' "cv. of 'Blushing Bride' x *johannis*. Large flamboyant chartreuse-green irregular many leafed rosette w/broadly blunted leaf tips - hot lilac-pink intense areas from the tips inward - plant distorts frequently forming central upright spike of leaves - 26-30 leaves with purple specking and wrinkled areas - colour changes interweave and streak into one another." It is another wonder from Grant Groves' strong colour hybridizing.

I do have the distortion and formation of a minor central upright spike in young offsets but not in adult plants. I ensure there is water in the centre and sometimes need to release the tightly wrapped central leaves.

I have been told Grant set up a marvellous display at a World Conference and Shane Zaghini could not believe his eyes, a very strong "I just must have them" emotion overcame him. With great enthusiasm Shane suggested to Michael Kiehl that they purchase all of the display plants. At the end of that conference across the Pacific Ocean to Oz came several of Shane's latest passion,

Neoregelia 'Passion'.

Now there are many being grown all around Oz and they show differing amounts of colours. In Brisbane I have seen it with well-stacked green leaves, then as anthesis approaches, the centre glows in deep pink. *Neoregelia* 'Passion' loves Cairns, and the hotter and more humid the weather, the better glows the colour. The "bromeliad pink" streaks and interweaves from the outside and often the centre is a very pale pink.

The first *Neoregelia* 'Passion' I saw was a green long tube shape with a note from Grace Goode to Bob – "Keep this one, grow it yourself". It was among the plants Grace was sending us for fund raising for Bromeliads Ten - the time that I was never going to grow these nasty, prickly !@!#* plants. Now there are usually three mature plants in my garden at all times and they usually each look different at one time.

These plants raise "strong emotion and great enthusiasm" for all who behold the lilac-pink flamboyant leaves and with "strong emotion and great enthusiasm" my ears hear my mouth say: *Neoregelia* 'Passion', never has a plant been so well named, it is just like passion. One day beautiful, colour strong and bright, then suddenly it fades out and does not deserve a second glance, then a few days later it is all bright and beautiful again - just like passion. The interweaving hot lilac-pink is exquisite to behold, the colour seems to just fill up the beholders soul and take all breath away – just like passion. Another day the centre is beautiful but the ends of the leaves are all tatty, faded and spotted, just like passion.

Just like passion, it will suddenly brighten and the pink is so intense it must be going to flower, the colour teases in and out, but it does not flower, it does not show that ultimate perfection of anthesis, it is just out of range – just like passion - then it just keeps

growing to tease again. The lower leaves are usually tatty and beg to be removed, so a stem is formed. This stem sometimes becomes dry and the 'plant' falls off but makes new roots when placed in perlite, and then resumes the teasing game – just like passion.

Invariably I will be asked if there is a spare offset and I agree to sell but it is with a warning "It will be beautiful and tease you, then look pretty ordinary, then return to beautiful, but never complain to me about it, I don't want to know!"

Neoregelia 'Passion' is beautiful, but changeable - just like passion.

Home Remedies for Plant Pests

(Anonymous)

Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, September-October 1988 v. 38 (5), p.222. Imperial measurements have been converted into metric ones.

The following remedies are from an ancient Heloise column.

Red spider mites: Four tablespoons of dishwashing liquid or one half cake of yellow soap dissolved in 5 litres of water. Spray weekly until the mites are gone, and then monthly to keep them from returning.

Hardshell scale: Mix one-fourth teaspoon olive oil, two tablespoons baking powder, and one tablespoon of mild liquid soap in 10 litres of water. Spray or wipe on once a week for three weeks. Repeat if necessary.

Mealybugs: Wipe with cotton swabs dipped in alcohol. Spray larger plants weekly with a solution of one part alcohol to three parts water until the bugs no longer hatch.

The Editor's Desk

by Ross Stenhouse

This is the 14th edition of this journal that I have edited and it doesn't get any easier as time goes on. You may notice that I have written a few short articles in this edition, partly as a response to the need to have copy, partly because as my level of knowledge increases. I now feel confident enough to share that knowledge with my peers.

I would like to encourage readers who have an article that would be of interest to others to write it down and forward it in for publication. Having a diversity of contributors who are willing to write an occasional article will make this journal a better publication.

Illustrative images are welcome, however having images for your article is not a necessity. I have a large library of images of bromeliads, so if you are writing about a particular species and don't have an image to illustrate it, the chances are that I will.

A good example of an article style, that could be utilized in a wide number of situations is the article on *Neoregelia* 'Passion' by Lynn Hudson. Lynn has given the technical details on this plant (educational) and coupled it with a human interest content. The result is an informative and pleasing article.

In this issue I have included a lengthy reprint of an article on digital photography, followed by a much shorter article showing

how I photograph bromeliads. My article is pitched at the experienced photographer, hence it is a bit cryptic. To the more experienced photographer it will make sense.

Digital photography has revolutionised the world of photography. The average digital photographer can avail themselves of the opportunity to get a quick review of their work in a few seconds. Previously only professional photographers with a polaroid pack for their cameras had this opportunity. Speaking of polaroid photographs, is that yet another technology consigned to history?

We regularly reprint articles from journals from past years, many were written about fifty years ago. It's interesting to read the thoughts of those days, they are still relevant.

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Cutaneous Sporotrichosis

Compiled by Michael O'Dea

Sphagnum Moss is one of several types of organic materials that can carry the fungal disease Cutaneous Sporotrichosis, a chronic fungal infection characterised by skin lesions. Gardeners are rightfully concerned when reading about the dangers of handling this product, when they are told that in some extremely rare cases, infection has caused death.

Confusion reigns! The above extract was taken from a Journal dated 1994. I have previously read where Sphagnum moss had been used as a wound dressing in World War 1, and more recently, I read where it was currently being used for its absorption and antiseptic qualities in women's products. Sphagnum moss is used in the floral industry to make wreaths and to line hanging baskets. Workers in that industry have been warned to protect themselves with gloves and heavy clothing to avoid puncture wounds or scrapes. The article goes on to say that gardeners should follow this advice to prevent them coming into contact with the dried moss.

Living moss when removed from its habitat does not have an unlimited life. The majority which reaches the florist shop is dead and dried; it is then wetted down for use. It used to be sold in graded bales with the long strand variety being favoured for floral work, the standard grade for general use, and the milled grade for raising seeds etc. In the eight years (1950's) of direct handling without gloves or protective clothing when we had no knowledge of the risks attributed, I had no adverse effects from handling this or many other products which we found out later could be detrimental to people's health. (lucky?).

Bromeliaceae

SPHAGNUM PEAT MOSS is widely used by gardeners to improve their soil and there have been no reported health problems associated with the use of this product. The methods of harvesting have changed over the years; from hand digging, it has become a completely mechanized operation. This has raised the question of workers health in this changed working environment. However to date, with years of ongoing monitoring, the worst aspect appears to be the dust created by the machines used. Appropriate clothing and face protection used by the workers has been the obvious answer to this problem.

SPHAGNUM MOSS is, however, an entirely different story. It is a living plant which inhabits swamps and bogs. There are over 340 recognised species of this plant which belongs to the family Sphagnaceae. This large family of mosses is different from the true mosses in that they have a softer appearance, pale green in colour, with an absence of root-hairs; and their growth is much larger (often a foot or more in height). Structurally they differ in their reproductive organs, as their leaves and stems are enclosed by one to four strata (parallel layers of cells) of transparent cells connected to each other by small holes. These holes take the place of root hairs, and it is this ability which it has of sucking up and retaining such huge quantities of water that make this moss such a valuable material for gardeners and nurserymen.

It is difficult to keep the moss alive for any length of time unless you can duplicate its original growing conditions. Fortunately however, dead or dried Sphagnum retains its water absorbency for a very long time and may be used repeatedly until it starts to decompose when it may then be used for packing or adding into your potting or seed raising mix.

As was mentioned, Sphagnum Moss is the living plant and Peat Moss is the de-

composition product of the sphagnum plant below the water; along with other materials which settle to the bottom of the bog and become compressed over the centuries, so it is correctly called 'Sphagnum Peat Moss'. Sphagnum is harvested in many countries, as is its end product Peat. Coming from so many different locations it is not surprising that the peat you buy can have differing effects on your plants. Why? The first thing to do is check out the pH factor!

However, I started out to tell you about Cutaneous sporotrichosis. Sporotrichosis is a fungal infection caused by a microscopic fungus called *Sporothrix schenckii*. This fungus has been found in many kinds of organic materials eg. roses, hay, barberry thorns, pine needles and of course sphagnum moss.

How is it contracted? It enters the skin through small cuts or pricks caused by or in contact with any infected material. IT CAN NOT BE SPREAD FROM PERSON TO PERSON.

Symptoms : A small pink, red or purple painless bump resembling an insect bite appears where the fungus first entered through a break in the skin. This is followed by the appearance of one or more additional raised bumps or nodules which open and may resemble a boil. Eventually, the skin lesions look like ulcers and are very slow to heal.

The skin lesions may appear in one to twelve weeks after exposure but usually within three weeks. The majority of infections are limited to the skin. Cases of joint, lung and central nervous system infection have occurred but are very rare and usually occur only in people with diabetes or disorders of the immune system.

Prevention: Wear suitable clothing and gloves if you handle any of these materials or other plants which could cause minor skin breaks.

Diagnosis: Consult your Doctor : He will confirm if necessary by blood or biopsy specimen, or he may take a swab from a freshly opened skin nodule which he will then submit to a laboratory for fungal culture.

Treatment: Generally treated with iodides if prescribed by your Doctor, taken orally in droplet form over a number of weeks.

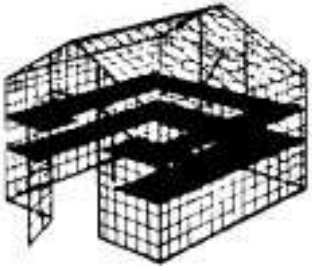
IMPORTANT This article has been compiled from various acknowledged sources and is for informational purposes only. Consult your Doctor for all medical advice.

Information Sources:- New York State Department of Health, Iowa State University, Extension of Horticulture and Home Pest Newsletter, Med Help International : Standard Cyclopedia of Horticulture by L.H.Bailey, 1947 edition).

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#42 'DeRolf'



99 'DeRolf'

One Day in the Garden

by Rob Smythe MSc

It is easy to prepare a talk showing the best slides that you have taken over the past five years. Five years ago my garden was a sight with Spanish moss hanging from every shrub and tree as well as from the whole clothes line. Since then the fungal infection has moved up the coast killing most plants. We are seeing a recovery now which I am hoping is not just due to the dry weather but to the development of resistive strains. Interestingly where the moss has died on one tree it seems to have left behind a resistant hybrid. Tiny skinny leaved but does not look like becoming pendant. I had a similar experience when I pulled a thick vine down from a tree. Trunk was covered with unknown *Neoregelia* seedlings.

What I am going to do now is take you on a tour of my broms when they were at their peak. The best day of the year is the day before the heat sets in. I live in Townsville and if a wet season does not set in my plants can fade quickly in the heat. They mostly grow in nearly full sun during cooler months. I bring in some shade, mostly paw paw plants and potted plants for the hot months. I am gradually developing permanent shade using tree ferns and in the back yard shade cloth is attached to some tree via clips so that it can quickly be put up during hot periods. I also cool plants down with the hose during hot periods. This has never caused droplet burn as commonly found with orchids. I believe the reasons are firstly the trichomes via capillary action disperse the droplets and secondly that broms seem to have a heavy waxing on their leaves and probably some mechanism

for cooling via the tank of water. Most of my plants get full sun for some hours even in summer. It takes about three years to toughen them to take this.

So what is different about this story? As I started to say, it is easy to prepare a slide presentation taking the best pictures of maybe the past few years. Here I am not doing this. Every picture has the date on it and you will see they were all taken the same day. This presentation will show just how good a collection can look just before the heat sets in.

#42 *Neo. 'DeRolf'*--- This shows an enormous plant of *Neo. 'DeRolf'*. It is 800 mm wide, having more than 30 leaves. Supposedly it is a variegated *Neo. johannis*. Where do all the spots come from? I think the original description said *Neo. johannis* was an all green plant. I have seen more attractive mottled forms on the fcbs site. That's botany for you. Pick one plant, describe it, and it represents the whole population. I generally won't mention leaf numbers but as a general statement, in Townsville, *Neo*'s hold about twice the number of leaves on a plant when compared to Brisbane plants and about half that found in Hawaii. We don't often have cold enough winters to induce flowering so our plants last longer and grow bigger especially if the leaves do not touch the ground. Good for growing but not good if you want to breed from them. If *Neo. concentrica* flowers it is time to party. Five years between flowering would not be an exaggeration. The plant shown is growing in a rockery. Severely hot winds blow off the paving in summer. It is protected by a triangular shade cloth for the hotter months. It still gets full morning sun up to about 10.30 am.

#99 *N. 'DeRolf'* again--- In the middle of the photo. Is there a more spectacular *Neo* for the garden setting? You can grow it in shade and it is green with red markings and you can grow it in bright light and it is



Bromeliaceae

12

Mar/Apr 2007

yellow with red markings. Leave the pup in place and it grows to a monstrous size. The only tricky thing about it is its name, not 'De Rolf' or 'de Rolf' but 'DeRolf'. *Neo*. 'Gee Whiz' is seen to the front of *Neo*. 'DeRolf'. One of my all time favourites. These get so large that I have seen people struggling with bold cutters trying to divide a plant. Get the sun to them and the red colour intensifies, see below.

#49- *Neo*. 'Gee Whiz' again growing just in front of *Neo*. 'DeRolf' so it grows in similar conditions with the exception that it gets an extra half hour of full sun light. There appears to be two forms of *Neo* 'Gee Whiz' in circulation. Seems to be the norm with broms. One clone is registered then eventually appears in several forms. That is the way broms function, they keep altering. There is no such thing as a stable clone. If you say differently Darwin will turn in his grave. It is just a matter of time. I believe I found four or five major variants on *Neo*. 'Bruise'r in three generations. On the other hand I have found *Neo*. 'Roy's Special' though not perfect, to be recognizable by sight for a good ten years. *Neo*. 'Gee Whiz' seems to be around in two forms. The larger flatter growing form and the form pictured. This plant seems to be appearing in collections under some unregistered 'Yamamoto' name as well.

#58 *Neo*. 'Enchantment' This is growing beside *N*. 'DeRolf' so it grows under the same conditions. If I had to have a garden full of one plant it would have to be this plant. It looks good at all times. There is the albo marginated form and Bob Larnack the breeder of these two told me that the normal form appeared on one side of the plant and the albo on the other. I am surprised that my plants are so stable. They have lots of pups so as expected their prices are dropping quickly. When I got my first plant, I was constructing a totem. This plant was \$100

at that time and the totem fell on it. I cursed for being so stupid and swore I would never buy another. One kind friend sick of hearing me wingeing swapped me a pup for the rare black *Hohenbergia*.

#56, #40 & #98 *Neo*. 'Rosy Morn' (Giant). This plant grew to 1.1 metres across this year. This is one of about three different plants carrying the names of *Neo*. 'Morrisoniana' or *Neo*. 'Rosy Morn'. As an adult it looks to the eye to be a very large *Neo*. *cruenta* and needs a lot of sun. When it flowered this year I checked it out and it is not *Neo*. *cruenta*. There are two other forms of what we will, for convenience call *Neo*. 'Rosy Morn' these are flatter and wider leaved forms. These two can only be differentiated by size of spines and I think flower colour. I have selfed one of these and I am sure the registered parentage is incorrect. The naming of these therefore will always be a mess for more than one reason. Looks like anything large red and having spotted pups will be called *Neo*. 'Rosy Morn'. The *cruenta* look alike is much later in colouring up and needs full sun for most of the year. Everyone that sees it in colour wants it. I have not seen it anywhere away from my plant and its few pups. Its origin is a complete mystery.

#67 *Neo*. 'Roy' hybrids This is the real joy for me. All these plants in the foreground I have bred myself. The necessity of waiting three or four years to see their full potential makes me wish I started hybridizing these plants as a younger man. Fortunately one of my sons in his thirties has got the crossing bug. The three plants in the front line are *Neo*. 'Roy's Rogue' x self. The one to the left is looking like *Neo*. 'Mister Odean' which is actually a *Neo*. 'Roy' x self. This is very interesting as a couple of people bought *Neo*. 'Roy' while on a trip to America and they turned out to be different to the true *Neo*. 'Roy'. My selfing of one of these plants, now



registered as *Neo*. 'Roy's Rogue', would suggest the USA procured plants were probably selfings of *Neo*. 'Roy' grown by an orchid grower. Orchid growers have a different naming system and can legitimately call selfings of clones, the same name as the parent. We brom growers can only do that for species and not for hybrid clones. The two more reddish ones in the front I have named *Neo*. 'Red Rogue'. Others are not named. What I have insinuated above is supported also by the fact that the two imported forms of so called *Neo*. 'Roy' when grown side by side are slightly different but not, in my opinion, different enough, in accordance with international rules, to carry separate names. There is no set guideline for this. Botanists can be absurd even with their more demanding regulation for naming species. I know of a botanist splitting a species into two just by having knowledge of the scent they emitted. There is even more to this story. Each plant had the same chemicals in their scent but in different amounts. My rule of thumb is that if I can't tell my crosses apart when in flower in my own garden they come under the one name. This is in accordance with the international convention. So says bromeliad detective Inspector Robert Sherlock Smythe.

#68 *Alcantarea imperialis* --Well what a surprise, I don't only grow Neoregelias. If you have space in your garden you must have an *Alcantarea* or two in your garden. They are majestic landscaping plants which grow quite well in sun as in shade. Up here in the tropics they appear to be a bit slow growing except for two forms. One is *Alcan. glaziouana* which grows like a weed. About 5 years from pup to flowering. The plant shown here also grows well. It was sold to me as *Alcan. imperialis*, the green form. I will wait till it flowers before it gets a proper name tag as it is nothing like the much slower growing *Alcan. Imperialis* 'Rubra' see photo #37. I would

love to get hold of the tropical *Alcantarea nahoumi* which so far is not in Australia. I would suggest if you flower an *Alcantarea* get an expert to check its name. They are so much alike but it is believed, at this point in time, they don't hybridize so naming should be simply following a key. The most spectacular forms of these have been mericloned so the high price usually accompanying purchase of these plants should fall quickly.

#86 *Neo*. 'Sheer Joy' x *concentrica*

A friend from Wyoming NSW sent me this as a pup. I was looking for large *concentrica* types at the time. It came green with a purplish centre but soon in our bright light it coloured up magnificently. It is not real large as yet so first pup will be left on with mother cut away to allow light to the pup. This will make it bigger and it will have even better shape. It is in the process of being named—so I was told.

#92 *Neo* 'Cockabel' is a joy to behold. Just gets bigger and bigger with more and more markings. It is an American import and has been around for a long time but only recently registered.

#76 *Neo*. 'Patchwork' - One of my favourites from plants that I bred myself. I have a photographic history of this plant from day one. My *Neo*. 'Bobby Dazzler' had an all green pup. As it matured it developed some large blotches of red devoid of spots. I looked into registering it and was told if its pups were stable I could do so. My next note to the registrar went something like this.

"The first all green pup has matured and its first pup is all red, 'bugger'."

As it turns out it went blotched also, so this plant can start all red or all green but with time turns red on and off to create red blotches on a green background or is it the other way round?

#39 *Neo*. 'Raphael'--- I had never heard of this plant until, at a conference,



Bromeliaceae

a very experienced bromeliad grower and an importer said to me, "get that one". It wasn't even on her table. I am lucky I took her advice.

#96 *Neo*. 'Aztec' in the front corners with three beautiful plants of *N*. 'Roy's Special' growing behind them. The latter plants are so popular up here but not so in the south—so I have been told. The reason I guess is that they grow so tall and hold a lot of leaves up here as they rarely flower. *Neo*. 'Aztec' is always popular as it is a real show off.

#77 *Tillandsia bracteata*—I tolerate *Tills* as tree subjects but generally find them boring. So many look alike and so many don't flower. I like the ones where the whole plant lights up at flowering time. *Till. bracteata*, *Till. ionantha* and *Till.* 'Eric Knoblock' are my favourites. There are a few others like *Till. streptophylla* which make a statement.

#69 *Neo*. 'Blue Nude'---You may have this in your collection as *Neo*. 'Piccaco' Blue Nude. It has now been registered in its own right. It has broad leaves and great shape and was a great disappointment in low light. There was a dramatic intensifying of colour when it came out into bright light.

#72 *Neo*. Moby Dick—I thought I had the best form of *N. marmorata* which I just call *N. marmorata* 'Rob'. I thought it was the best grown from seed coming from a botanist in South America. I didn't know that more than one grower was germinating these seeds. It is a large and dramatic plant. For this year for some unknown reason very small plants of *Neo. marmorata* including the clone *Neo*. 'Moby Dick' flowered as very small undeveloped plants

#66, #70, #71 & #73 Seedling areas. Hoping to register several of these this year.

#65 *Neo*. 'Brazen Girl' - This is one of my crosses selected for registration. It is

much more intense in colour than its sibling and showed no ill effects during the heat of summer. Could turn out to be a top red plant for hot areas.

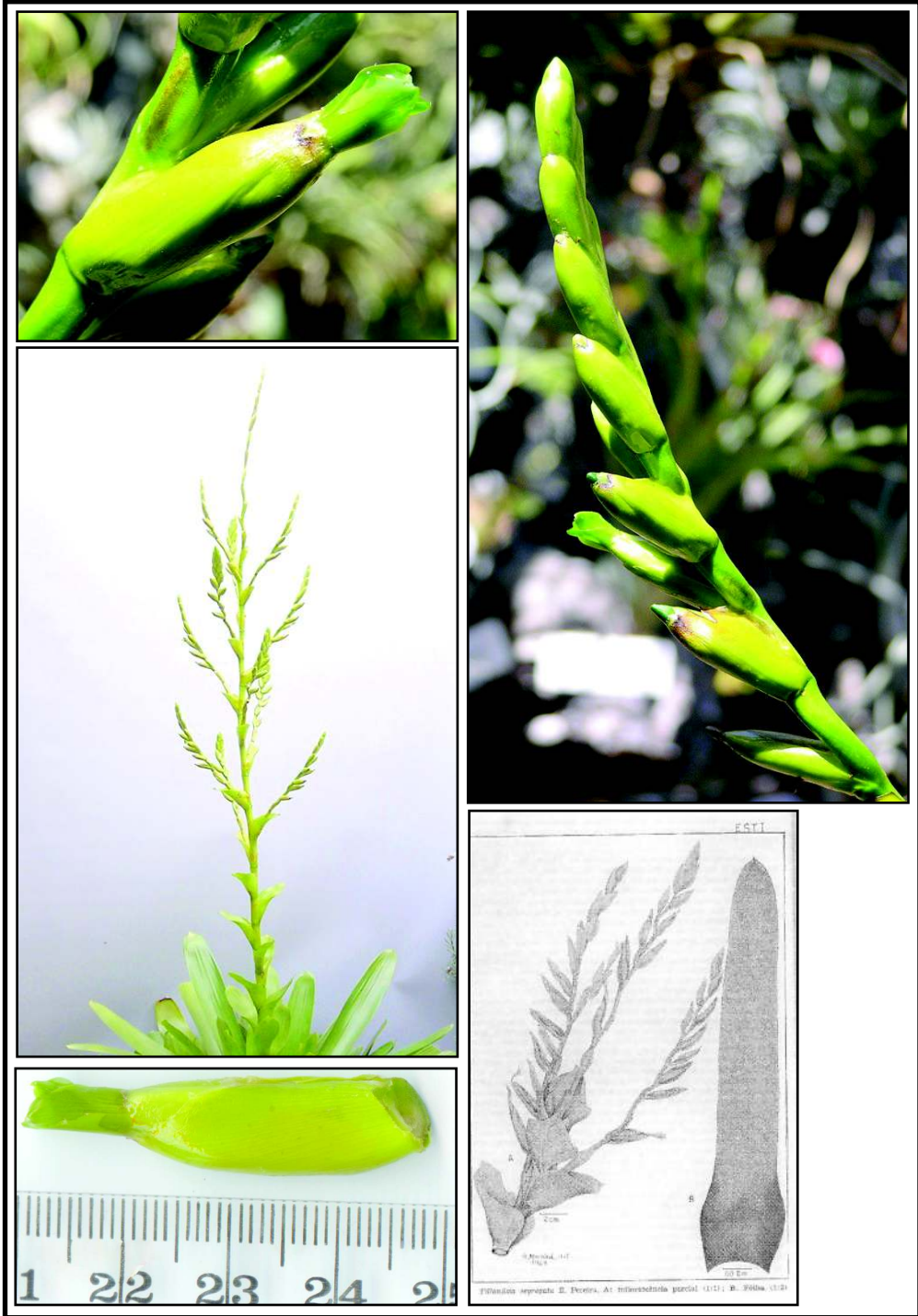
#60 *Neo* 'Empress'—This was originally registered as *Neo*. 'Empress' variegata or something like that. When registered it was described as variegated so the correct name is simply *Neo*. 'Empress'. A beautiful plant but difficult to propagate in the north. Too many pups are too pale. I liked it that much I bought 9 plants. After 6 years I dropped back to six and back up to 9 this year. They are quite cheap in Brisbane so they must reproduce better under less heat stress. They make very attractive basket specimens.

#59 Basket plants—*Neo*. 'Twenty one Gun' to the left and *Neo*. 'Rossa Muller' to the right. I half fill baskets with foam to keep them light.

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Membership fees (\$15 - Single, \$20 - Family, \$30 Overseas) are due and payable on 1st January 2007. Prompt payment will greatly assist the Treasurer and Membership Secretary. Members who have not paid their annual subscription will not receive further copies of *Bromeliaceae* after this edition. So if you value getting *Bromeliaceae*, then make sure you renew your membership!

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Bromeliaceae

18

Mar/Apr 2007

Vriesea morrenii or Green on Green on Green

by Derek Butcher

AND another thing do not confuse this name with the hybrid 'Morreniana'!

In the late 1980's Len Colgan imported a *Tillandsia segregata* from Bello's nursery in Brazil for Peter Tristram and which served its quarantine sentence at Peter's place. It survived and a few years later Len got an offset to grow on. However, Len decided it would not be easy to grow and the plant went up to northern Queensland never to be heard of again.

This information was not known to me when in August 2000 we acquired a *Vriesea morrenii* from Genny Vauhkonen. Subsequently we have found out that she got her plant from Peter Tristram. How did it get a name change? I can only assume it was because Peter Tristram saw that in 1994 DeRebus I page 29 the succinct note that *Tillandsia segregata* is now *Vriesea morrenii* according to an unpublished Supplement to Flora Neotropica. If you look at Flora Neotropica 1977 page 1141 under *Vriesea morrenii* you find the note "Edmundo Pereira in Rio de Janeiro has living material with wholly naked petals but otherwise indistinguishable from *Vriesea morrenii*. For the present I am regarding this as a reversion to a more primitive state." You will note that although Smith was aware that Pereira had published in 1971 the name *Tillandsia segregata* was not mentioned! We now know the reason for such statement. More on this later.

Genny commented, "It doesn't flower often!" If they had problems in this regard near Brisbane where it is sunny everyday and raining everynight, what chance did we have

in Adelaide where it is sunny every day and dry everynight. But in Feb. 2007 (7 years later!) our plant decided to flower. It seems to be a plant that produces large vigorous offsets before flowering. When you have a plant that is 1m in diameter and flowers to nearly 2m high you need space. Admittedly while you wait for flowering you do have a lovely green leafy plant with dark lines and no prickles on the leaves.

So I was blithely assuming I had a *Vriesea morrenii* to butcher. Ever since I retired, I have been on the search for plant descriptions not in Flora Neotropica. This search increased apace when I got access to the Internet and could get detail from little-known published papers. I now have descriptions of virtually all the Bromeliaceae. In the case of *T. segregata* it took a fair bit of fossicking to find that Pereira had described this new species in Rodriguesia in 1971 and thanks to Dr. Walter Till I got hold of a photocopy. Translation of the Latin and the Portuguese helped me understand what was going on.

We know that Lyman Smith split *Vriesea* and *Tillandsia* at genus level purely on the basis of petal appendages and yet in this instance he was prepared to forget his own philosophy! Luckily these days emphasis is less strong on the importance of petal appendages although it is said the presence or absence of these could be used to segregate at species level! As such I believe that we should have *T. segregata* resurrected perhaps as *Vriesea segregata* but leave it up to the Brazilian taxonomists. After all, Pereira in 1971 wrote strongly about the casual decision of Lyman Smith to consider his plant to be a *Vriesea*! As is natural, the Brazilians would follow a Brazilian taxonomist so this is why Len Colgan got his plant as *Tillandsia segregata*!

A copy of a drawing of *T. segregata* is shown here. The plant had been collected



Nidularium 'Orange Innocent'



Aechmea 'La Tigra'

in the Organ Mountains in Rio de Janeiro. The description of *T. segregata* says yellow petals, whereas everything else was a variation on green so it must stand out! Alas, we missed the first flowerings with our plant because the petals were dark green. There are a few discrepancies between our plant and the description but nothing to suggest it was another described species. AND I could not find any petal appendages. So there are at least two plants around with this attribute – Pereira 10674 and ours!

Let us now have a quick look at *Vriesea morrenii* which was named in 1880. Alas the herbarium specimen has been lost. In 1889 Baker treated it as *Tillandsia Morreni* with no mention of petal appendages. In 1935 Mez records *Vriesea Morrenii* with two appendages and by Flora Neotropica 1977 these appendages had become ovate! I am currently trying to find the protologue in 1880!! We know that Lyman Smith collected *V. morrenii* in 1952 in the Organ Mountains so the shape of the petal appendages could have come from here. The description is otherwise very similar to that of *T. segregata* except that it mentions irregular transverse dark green lines whereas Pereira says *T. segregata* has longitudinal folds. Our plant has both attributes.

This plant will continue to be grown in Australia if only as a non-prickly foliage plant but don't be disappointed with the greenness of the inflorescence! Reports around Australia from the SAME clone reveal an interesting phenomenon about the petal colour. We know that in Adelaide they are totally green but I have proof that in Melbourne at least one flower had totally yellow petals whereas in northern NSW they are yellow with green tips. Dare I ask that if you are growing a plant of this name from a different source you check for little appendages at the bottom of the petals to see if you have a TRUE *Vriesea morrenii*!

Bromeliaceae

***Nidularium* 'Orange Innocent'** by Derek Butcher

There is a plant being sold in Queensland as *Nidularium* species Brasil which when you really think about it, is not a particularly definitive name. There is an awful lot of coffee in Brazil just as there are an awful lot of *Nidularium*. We have flowered this plant in Adelaide and it is clearly in the subcomplex *innocentii* with its white flowers. Lack of collection data makes me shy away from identifying it with any of the species in Elton Leme's revision of this genus. Therefore, if we are serious about identifying this very attractive clone I suggest it be called 'Orange Innocent' and if you have this plant please change the label. In the meantime if anyone knows a bit more of its history please advise me so it can be added to the records and not get cobwebs in some ones brain.

Aechmea nudicaulis by Derek Butcher

In 2006 Paul Widdup, one of your newer members but keen on plant identification sent me a photo of an *Aechmea nudicaulis* 'Tiger'. This is not in the Cultivar Register and I asked him to investigate further, but alas, he was unable to get any leads on this plant. Is it a new cultivar named in Queensland without telling anybody else or is it a lazy way of writing 'La Tigra'? I am showing photographs of both in the hope that we may get an answer to this riddle.

We know there is difficulty in identifying the many forms of *Aechmea nudicaulis* but it solves nothing if names are given to different forms and nothing is written about them.

In 1998 I wrote to Harry Luther about the key in Smith & Downs not really working because I found so many that did not agree with the descriptions. Here is Harry's reply
Marie Selby Bot Gardens 23 Oct. 1998

Dear Derek;

I hope that you haven't spent too much time trying to sort out the various names in a key applied to *A. nudicaulis*. It not worth the effort; in Brasil, especially from around Rio and south it is a variable taxon. Most of these names go with populations except for variegated clones, but are probably not biologically significant. I've seen living material of all except var. *simulans* (I've seen type material at HB). This has a typical *cuspidata* inflorescence but with rather narrow, pointed, spiny leaf blades. I should note that almost all of the material I've seen from Brazil has floral bracts conspicuous enough to be called var. *cuspidata*; only West Indian and Mexican & Central American (including some Venezuelan & Guyana plants) collections have

very reduced or lacking floral bracts. I've not made an extensive study but the floral bract size doesn't seem to correlate with any other features (leaf number, flower color, conformation). Flower color is especially worthless as plants of var. *capitata* can have aureo-rosea color. In fact the only variation worth noting, in my opinion, is var. *capitata* with its congested head of erect flowers with a sulcate ovary (= *Aechmea sulcata* 'Lindman'???)

Var. *plurifolia* isn't that different as plants fitting into that variety may have fewer leaves that are not at all distichous and are spirally arranged; the inflorescence is typical var. *cuspidata*.

I have about 20 collections of this species from Mexico to Ecuador and Parana/Sao Paulo border area of Brazil. A form from Dominican Republic is odd, somewhat resembles *simulans*.

Yours truly,

Harry

(Article continued on page 23.)

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Do Possums eat Broms?

Reprinted, with permission of Rob Smythe, from *Brom Watch* Townsville, March/May 2007

I would usually say if the broms are within your reach they are usually safe. Above that you are taking a chance. Another brom growing son of mine, Mark, who lives in Brisbane has said that the possums are coming down and eating the centres out of his plants. It is probably caused by the drought. Possums don't drink. They get moisture from foliage tips and the like. Wet young brom leaves could be the answer to their drought problem. A friend who lives near Ross River in Townsville says the white tailed rats come from the river and eat his broms.

Despite Harry's comments I concocted a key to try to help me understand what I was looking for and it is given here in case some of you want to try it.

Key to *Aechmea nudicaulis* by Butcher compiled from descriptions but does not link exactly to plant material in collections. This is confirmed by Harry Luther's comments – and Tanya Wendt's comments in the Bot Journ of the Linnaean Soc 125: 245-271. 1997.

- | | |
|---|-------------------------|
| 1. PLANT - more than 20 spreading ligulate leaves with red tip | var. plurifolia |
| 1a - about 20 erect leaves without red tip | 2 |
| 2. LEAVES - linear triangular narrowing to a pungent tip | var. simulans |
| Plant similar to <i>Aechmea purpureo-rosea</i> | |
| 2a - ligulate forming a loose cylinder | 3 |
| 3. INFLORESCENCE - dense, leaves banded, floral bracts minute, tips acuminate. Sepals yellow with pink tip, petals yellow | var. capitata |
| 3a - lax | 4 |
| 4. LEAVES - variegated | 5 |
| 4a - concolorous | 6 |
| 5. LEAVES - variegated (form of <i>cuspidata</i>) forma <i>tabuleirensis</i> | |
| 5a - yellow marginated var. <i>flavo-marginata</i> | |
| 6. FLORAL BRACTS - kidney shaped and minute petals yellow | var. nudicaulis |
| 6a - triangular or elliptic, relatively conspicuous | 7 |
| 7. PETALS - wholly yellow | 8 |
| 7a - red with yellow tip, sepals and ovary red | var. aureo-rosea |
| 8. SCAPE BRACTS - smallish, evenly spread on scape | var. aequalis |
| 8a - clustered beneath inflorescence petals and sepals yellow | var. cuspidata |

When you have been through this and your plant does not fit the bill then refer to the Online Cultivar register on <http://fcbs.org> When there enter *nudicaulis* in the box called Cult Group. You should get 15 replies to give you even more checks to make. BUT please do not give your plant a cultivar name without giving detail to the Cultivar Registrar.

We need a “Population Policy for S. E. Queensland”.

Author: Ross Stenhouse

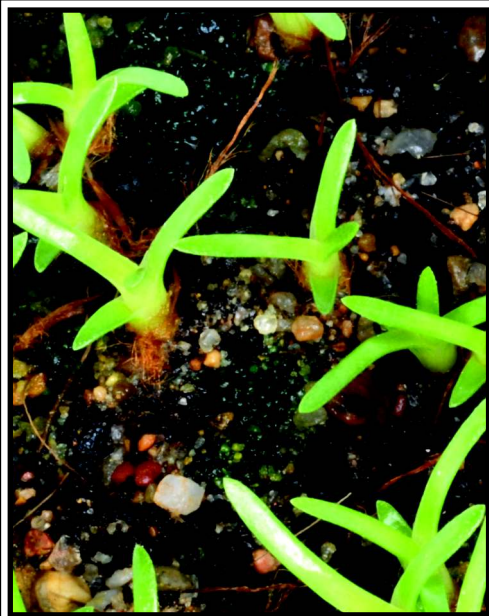
The effects of the water shortages in South East Queensland is starting to really bite. At the recent Autumn Show of the Society the attendance numbers were down by about fifty percent, although the plant sales, while reduced, weren't so badly affected. The lack of water played a big role in that reduction in numbers and takings.

Bromeliaceae

The population of S. E. Queensland has been allowed to rise at a rapid rate without the construction of the basic water infrastructure to support that increased population.

Determination the infrastructure requirements needs to be based on good forward planning. How can the future infrastructure needs of S. E. Queensland be determined without the planners knowing what the policy for the future population will be.

We need a population policy for the region. We need the politicians to tackle what will be a difficult issue. We need a population policy now!



Alcantarea glaziouana seedlings at 10 weeks. *Alcantarea glaziouana* at 15 months. These were grown inside a sealed container, thus there was no need to water them. These were transplanted from the seedling tray at 10 months.



Alcantarea glaziouana also 15 months of age, *Aechmea recurvata* 16 months old. Planted at the same time as the *Alcantarea glaziouana* shown in this image spread but left in the original container and with the same medium that the seeds were planted.

Growing from seed can be Fun

Author: Ross Stenhouse

Being a serious bromeliad grower without trying to grow bromeliads from seed is a bit like getting married and not having kids. Growing bromeliads from pups is certainly interesting, however there is a complete different world of experiences when you grow them from seed.

The analogy above has a lot more to it than is apparent at first glance, one of the most obvious parallels is learning to be patient (broms grown from seed take 2-3 years to mature) and another is that the offspring don't always turn out like you planned.

What follows is not an expert's guide to the growing of bromeliads from seed. Rather it's just the practical experience from a beginner. I have included the illustrations because it gives you a reasonable idea of what to expect.

When you first start to grow from seed, it's normally from seed that has been given to you. The seed that was given to me was *Alcantarea glaziouana*. It was handed out at a society meeting by Olive Trevor. Whether it was a good plant to grow from seed I am not sure. However it did grow and now I am looking forward to seeing grown plants.

When growing from seed, you usually end up with a lot of plants. Some grow faster than others and it is very interesting to monitor progress. A point is reached when the crowding in the seedling tray necessitates transplanting some into a growing-on pot. Those of you who are fortunate enough to have the room, at this stage could put one plant to a pot, unfortunately I don't have that luxury. I chose three plants to the pot. the plants are about 50 mm (2 inches) high

at this stage.

For the repotting mix, for the *Alcantarea glaziouana* plants I chose to use a standard purchased mix. I was concerned that with the small plants, a open potting mix would dry out too easily. It seems to have worked. The *Alcantarea glaziouana* plants in the tray were left in the original seedling mix of sand and peat. I added slow release to both.

With the *Aechmea recurvata* plants, I put them in a sand/peat mix. I decided to experiment with a more free draining mix. The *Aechmea recurvata* plants don't seem to grow as quickly as the *Alcantarea glaziouana*. I am not sure if that is a feature of that species or a function of the potting mix chosen.

For the past three weeks, I have been spraying a very weak fertilizer mix on the plants to foliar feed, particularly out of concern for the plants drying out too much with the current bout of dry hot weather, partially in

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Orthophytum 'Starlights' potted as described in the article, note the additional offset at the base which grew from the buried leaf axils.



Orthophytum 'Warren Loose' offset, this plant wasn't showing any signs of growth until I drastically increased the watering frequency.



Orthophytum 'Warren Loose' showing immature viviparous offsets at the leaf axils.



Orthophytum sucrei offset growing from the base of the plant

response to Len Trevor advocating the virtues of foliar feeding at one of the society's beginners classes.

I can't claim to be an expert in growing plants from seed, however I am finding my experiments very interesting. Of course once you start growing from seed, the urge develops to grow plants from your own seed and that opens up the wide world of hybridizing.

I suggest that the first step in getting your own seed is to do "selfing", ie pollinate your plant with its own pollen. Some species are self sterile, so this will not work in all cases. As part of the learning curve, you need to learn the difference between a seed pod that contains seeds and one that doesn't. In the case of plants like vrieseas it is very obvious, once the seed pods have turned brown, the pods with seeds feel hard and firm, the ones without squash easily when you give them a light squeeze.

I hope that these experiences of a raw beginner serve to prompt some of you to try growing bromeliads from seed and as your experience builds, you give hybridizing a go.

The Trouble With Orthophytums

Author: Ross Stenhouse

I have been trying to grow *Orthophytum* 'Starlight', *Orthophytum* 'Warren Loose' and *Orthophytum megalhaesii* offsets with varying degrees of success. The natural habitat for *Orthophytums* is confined to a portion of Brazil (Bahia, Minais Gerais). Here they can be found growing in full sun and usually on rock ledges. The plants grow in cracks in the rocks where a small amount of soil has collected, thus the plants are terrestrials rather than epiphytes. Growing on rock ledges gives the impression that these plants don't require a lot of water, that they tolerate a dry environment, however that has

not been my experience.

For some strange reason, I like *Orthophytums*. I acquired a couple of adult plants and looked after them and they grew well. Of course, pups appeared and I decided that I would grow them on.

That was when my troubles started, I would plant them. *Orthophytums* are a bit different to other bromeliads in that their offsets develop on the inflorescence as well as at the base of the plant. The offsets at the base of the plant are easy enough to identify, but I used to experience trouble identifying the offsets around the inflorescence. These are known as viviparous offsets.

What has helped me greatly in understanding what these offsets in the inflorescence were came from a understanding of the purpose of these offsets. The clue is in the genus name - '*Orthophytum*'. It is derived from the Greek words "ortho" for "straight" and "phylum" meaning "plant" - a reference to the lengthening of the stem that takes place during flowering. These long stems with the flowers and offsets serve a purpose, eventually the stems buckle and bend and allow the offset to come in contact with the ground, thus allowing it to take root some distance from the parent plant. The offsets at the base of the plant are there to replace the mother.

Understanding this allows you to come up with a suitable regime for growing the offsets.

Before I understood the reason for the pups up near the inflorescence, I would try cutting off the offset with a long section of stem attached, then I would bury the stem. All appeared OK for the next eight weeks or so, then I would bump the offset and it would fall out of the pot, there was no root growth. I repotted it using the original technique and after a period of time, once again it got knocked over, and still no root growth.

I then decided to cut off a section of

stem just below the leaf axil and I buried the leaf to achieve the result in the image (p.26 - top left). The buried leaves made the plant firm in the pot and a lot less likely to fall out when knocked. More importantly it included an offset and this took root.

I noticed that I needed to water the planted offset very regularly, Originally I thought these plants didn't need to be watered often. However, when I watered them every day (foliar feeding) the offsets started to thrive. These plants seem to need plenty of water, especially when getting established.

I hope you have enjoyed reading my experiences with growing orthophytums, I am interested to hear what have been the experiences of others.

A 'Plant with its own built-in tank'

The above is a catch-cry to use when you are telling your friends why they should be considering growing bromeliads. Bromeliads are very 'Water Wise' plants. The experts tell us that watering your broms once per week starting May should suffice!

Bromeliad Bromidiums

(by the Florida West Coast Bromeliad Society members)

Reprinted, with permission of the Bromeliad Society International, from the Bromeliad Society Bulletin, March-April 1957, v. VII (2), p.28.

- Bromeliads seem to do better, especially to reproduce better, if they are set deeply into the potting material, so lower leaves disintegrate and the stem is exposed by the removal of these leaves.

Bromeliaceae

- Bromeliads do not seem to make good growth if any restricting device, such as wire, cord or rope crosses the lower leaf area. If fastening bromels to bark, tree trunks etc, it is best to fasten the restricting band just at the point of the junction of the roots and the rhizome-like base of the plant.

- Old outer leaves are removed, not only for the sake of the plant's appearance, but also to encourage the development of pups or offshoots.

- Use dry milk, non-fat, in solution as recommended on the package, to clean leaves of plants.

Can you fertilize seedlings?

Reprinted, with permission of Rob Smythe, from Brom Watch Townsville, March/May 2007

Yes, very much so. Treat them as seedlings as per any other garden plant. They are grass-like and are feeding from their root systems. Feeding from roots eventually cuts out and they feed from the tank.

Eventually you have to stop feeding the highly coloured leaf forms like Bills and Neos. or the shape and colour will not appear. If I have fertilized too much I have been known to take the scissors to the strappy leaves cutting them back in proportion to the harder grown leaves.

Very young seedlings I add Alginox to the fertilizer and use fertiliser at half strength. I also keep a spray of systemic fungicide handy to minimize 'damp off'. It is best to prevent 'damp off' rather than to cure it. Sterilize your seed raising medium first - in a microwave. If the boss objects you can place the media thinly between two sheets of black plastic and leave it in the sun. If you are in a hurry just run hot water through it.



Aechmea 'Del Mar'

Orthophytum 'Warren Loose'

Orthophytum spp.

Orchids & Digital Photography: Tips for the Beginner

(by David Harmer)

Editorial comment (Bob Reilly): Reprinted, with permission from the Townsville District Orchid and Allied Plants Association, from T.D.O.A.P.A. (Inc) Bulletin, June 2006, pp 1-3. While this article focuses on orchid photography, many of the points are also relevant to bromeliad photography, especially for close-up shots of inflorescences.

New camera

Orchids and digital photography do go together. It is surprising how many people are now using a digital camera. A lot of people look to purchasing a digital camera when going overseas to try and save a few dollars. This creates a couple of questions. Firstly, will you be familiar with the features of the new camera you are going to purchase? If you are unfamiliar with it then many bad shots may ensue. If you have not noticed and have out of focus shots or some other problem and have flown off to your next destination, it is impossible to go back and retake those lost images.

It pays to purchase your camera locally, months before you go so that you can become familiar with its operation, the programs and other features. The other advantage is that you get local advice and warranty on your camera and this gives you local service and backup if anything goes wrong.

Viewfinder and LCD screen

Most new digital camera users seem to forget that there is also a viewfinder in the camera, and most owners seem to always use the LCD screen to compose and shoot photos. When outside in bright sunshine the LCD

screen is not very clear and is usually washed out by the brightness of the day, making it difficult to compose your shot correctly, so using the viewfinder is an advantage. It also is a means of holding the camera steadier, eliminating camera “wobble”.

When taking shots close to the ground, or in a crowd of people and taking shots over their heads, a fence or some other obstacle, then the LCD screen is a definite advantage. Using the viewfinder instead of the LCD screen also extends your battery life.

Half Press & Hold

Most new users at first find it difficult to use the shutter button and just press it straight down. You need to get used to half press, hold for a second or two, and then complete the action. The action of holding the shutter button half way allows your camera's auto attributes time to set the exposure and focus correctly. If you are close to a subject and viewing your LCD you can see immediately if the image is in focus with button pressed half way and held.

If not in focus, you may need to move the camera slightly and half press again; the auto focuser could be focusing on the wrong area of the scene or image you are trying to take. If you still continue to have trouble with the automatic focus you may need to go to manual focus to obtain a clear image.

Experiment

The big advantage of digital photography over film photography is that you can try different settings and experiment with your camera because you get instant feedback on what you have just taken, and unlike film, it costs nothing other than a bit of power loss from your battery. At first, take a few notes of your settings so that you can look at the image taken and compare it with the setting you have noted. Soon you will become expert at setting up your camera for all of the different situations you may encounter. You will



eventually be taking professional shots.

Batteries

Make sure you have spare battery(s) with you when you venture out. If you have the re-chargeable type, then an additional re-charged battery is beneficial. This allows you to take lots of images without fear of running out of battery life before completing your outing. Make a note on how long it takes to flatten your battery; this reduces the chance of it going flat in the middle of a shooting session. With spares, it also allows you to “waste” a bit of battery power by using more time setting up your shots correctly through the LCD.

If taking many shots at one location (such as a hall or show) and 240 volt power is available, it is an excellent idea to have a 240 volt mains’ lead to your camera. These are generally purchased as an optional extra. Check your manual for the correct part number and contact your dealer for a price. Using a 240 volt attachment allows you to leave the camera switched on and take as much time as you need to set up your shots accurately without fear of running low on battery power.

Shoot and delete

Take lots of images on different settings and then delete the bad ones. This gives you the best possible results for your efforts. By deleting the bad ones it also clears up memory space on your card.

Storage

When travelling, an additional memory card is very handy. When the current one is full, the new one can be installed and you can continue to take images. It is just like the old days when you carried around extra rolls of film. When away from home or your computer, you may be able to find a friend to download and clear your card of images, or you can take your card to a Film Processing establishment, and for a small fee they will

burn your images onto a disc for you. If doing a very long trip, and finding places that you can download is inconvenient, then a portable CD-R, CD-RW battery-operated/240v burner about your pocket size is now available.

You can insert your card into the unit and download the images and burn your own CDs. The CDs can also be added to as you continue to download your card, until the CD is full. These units are not all that expensive and are very convenient for the regular traveller. Extra memory cards are really a better way to save your images on a trip.

Make prints

Get prints of your best shots. Particularly family photographs that you might want to keep for years. You may want to give some of these shots to your relatives as mementos. Go to your Film Processing Shop and get these shots done there, as you will find them cheaper overall than printing them yourself. These last many more years than those you generate yourself on an inkjet printer. The ones you print yourself if framed and positioned in the home in high light conditions soon fade quickly.

Back-up

If you have the use of a computer, then backup your images. With computers you can use software to catalogue your images into folders and slide programs. Burn these files onto a couple of CDs., and keep one CD at another source in case yours gets lost or stolen. Your Film Processor can also do this for you by using a CD-RW disc, and when your camera card is full take in your original processed disc they supplied to you and they will add and burn the current card images onto this previous disc. When the CD is full, burn or purchase a spare copy and start all over again.

Keep learning

Most people who own digital cameras do not realize there are many other features



hidden away in a digital camera. Read your instruction manual carefully several times and test out the information on your camera, you will not hurt anything. Get familiar with the use of the various buttons and the directional key pad on the camera. Ask other users about shooting clues and settings. Go to invitational nights at Photo Clubs and Processing Shops. After a short time you will be taking professional images.

Do you know the digital “Tecky” talk?

When conversing with other digital camera users they come up with all those odd letters and things such as: Do you use AE on your camera? What have you set your WB to? Do you use the MF button on your camera? If you do not know what these terms are then you may need to re-read your manual so that you become familiar with the “Tecky” talk, because you do use all of the above when setting up your camera to take many and various shots. We will not tell you now what these mean, so please do some research and find out for yourself.

Points to remember

- Plan and think about your shot. Check light, background and other hazards.
- Set your camera features to suit the situation of the subject to be shot.
- Always use a tripod if possible to eliminate wobble causing out-of-focus images.
- Check your background. With orchid flowers it is best to use a flat black background for light coloured flowers and blue or gray for dark coloured flowers. (*Editorial comment-Bob Reilly: A blue background appears to work well for most bromeliads*).
- Use coloured cloth or card to achieve these backgrounds.
- Shoot several images to get your best and delete the ones that are no good.
- Use natural light if this is possible as the colour and detail of the flowers is closer to

their true colour. Diffused or shaded natural light eliminates shadows.

- At shows in a shopping centre you can use the existing lighting to shoot images. Today the shopping centre lighting is usually very bright. A digital camera set in Auto mode does not always give you the correct colour tone. Most digital cameras have a white balance mode that can be set to various settings to adjust the colour of your shot. The settings usually cover several types of fluorescent lighting and other incandescent lighting such as tungsten. Take several shots on different settings and view your result to get as close as possible to the true colour of the flower(s).

- Study the flower for shadows before shooting. Some forward-jutting petals and labellums cast shadows on the flower segments. You may need to use a “fill in flash” or a piece of cardboard covered with aluminium foil as a reflector to eliminate the shadows.

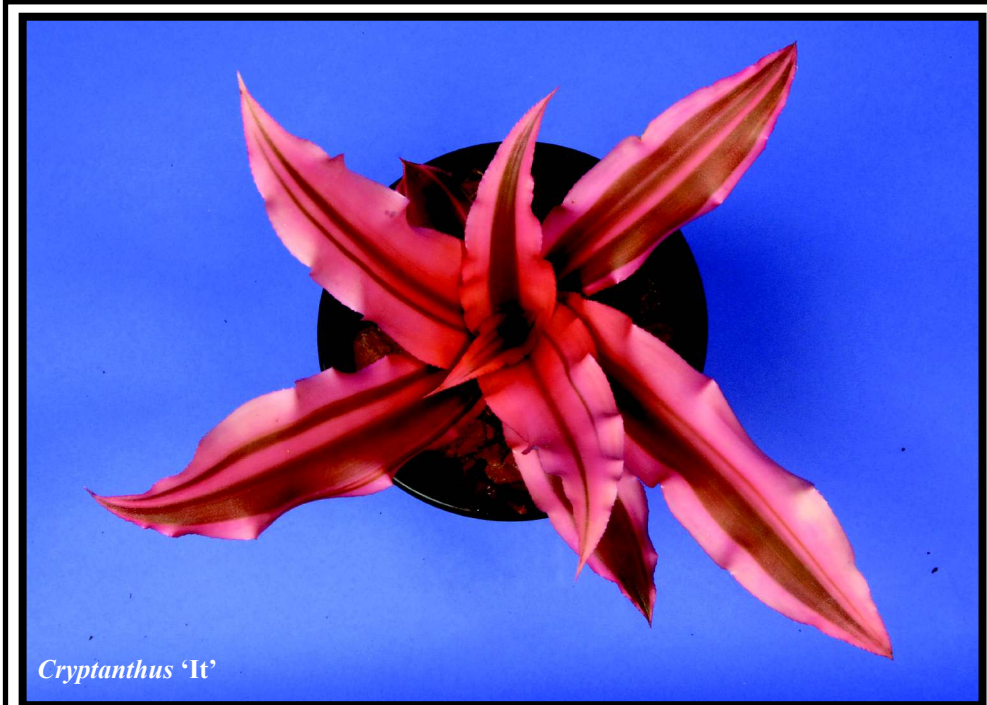
- If your flash is too bright you can partially cover it with masking tape to reduce the flash intensity. This can also be handy when taking flash images of white flowers where the flash tends to wash out the flower. Some digital cameras do have a capability for reducing flash intensity.

- If your auto focus does not appear to be working correctly, move the camera slightly, as it could be setting itself on another section of the view being taken. If this is not successful, then use the manual focus to get a sharp image.

- Always use a lens hood for outdoor shots. This reduces light reflection on the surface of the lens and gives a much more balanced image.

- When taking close-ups of flowers use portrait mode to blur the background behind the flower(s).

- If your background is not suitable at a monthly meeting or show, you can remove the plant from the table or display and place it in



Cryptanthus 'It'



Cryptanthus 'Elaine'

the middle of the hall with nothing behind the plant for several feet and take the flower in portrait mode using the flash. The result will be a black background.

- When using a flash at meetings, make sure the plant is a fair distance from light-coloured walls as the flowers will throw shadows and spoil the image.

- Always pick the best flower(s) to shoot. Move the plant around viewing it in your LCD to get the best image. Try to avoid if possible lots of flowers overlapping each other.

- Try and remove plant labels and ribbons from the plant as these detract and spoil the image.

- When shooting orchids outdoors try to pick a spot that is not in direct sunlight so as to reduce the harsh shadows that the segments form on the flower(s).

- Always take time to set up your plants and flowers. There is nothing worse than when doing a presentation if the flower image you have taken is perfect except for the green stake extending from the dorsal sepal or if there are excessive “twist ties” holding the flower stem. You can often also see yellow or badly marked leaves in an image that spoils the presentation.

- The more you practice, understand all of the features of your camera, and try different situations, then you will soon perfect the art of digital imaging and become very profes-

Advanced Digital Photography

Author: Ross Stenhouse

The article above has been presented because it covers the general photography that members are likely to use to photograph their bromeliads. It will deliver excellent images and certainly if done well, will deliver images suitable for publication.

I use more advanced techniques. One of the elements of design is “Fitness for Purpose” - in the case of the photographs I take for use in Bromeliaceae, the purpose is as “Product Images”. I am creating images that show off the characteristics of the plant, and allow for the image to be used in plant identification. Sometimes the purpose of the image is to illustrate a technical point.

Being able to create a large number of images in a few hours is also important. As an example a couple of days ago, Bob Reilly and I did a photo shoot at Olive and Len Trevor’s nursery. I took 153 images of 71 different plants in 3 hours. That’s an average of about 2 minutes per plant.

Bob and I work as a team, I do the photography, Bob does the plant selection and documentation. Bob creates a written description of the plant characteristics as well.

As can be seen from the images on the page opposite, I use studio flash units as the light source. I use a ‘soft box’ over one flash and a ‘brolly’ over the other. This is to give soft light sources. Using the flash’s built in modelling light, I adjust the power output and position of each flash to give the desired lighting effect I am seeking.

I measure the light intensity using a flash light meter, to get the approximate exposure, then bracket the exposure for the shot.

In one image, you can see I am using the end of the kitchen table. I use a blue backdrop to give a distraction free background.

I use a camera tripod and a shutter release cable. The camera is a Nikon D200 with a Nikon 24-120mm VR zoom lens. I am usually shooting at F22 to F32 to get good “depth of field” (ie. the area in focus).

It’s a bit like “formula photography”, the resultant images often aren’t a “thing of beauty” however the setup allows the quick creation of acceptable quality images that are “fit for the intended purpose”.



Bil. 'Strawberry'

Bil. 'Bellissima'

My photo setup
for shooting
broms

It's important to
get the correct
exposure. I use a
flash meter to take
an incident light
reading.

Kitsch or Culture

Author: Ross Stenhouse

On the page opposite are two photos of what I normally refer to as “dust attractors”, also more commonly “junk”. My wife Jan was asked to baby-sit these objects whilst the owner went on an extended holiday.

I know that this type of work is referred to as hand-craft and there are a lot of people who get a heap of enjoyment in objects such as these.

I must admit, after looking at them for a few minutes I started to find them interesting and a subject for photography.

I identified the tillandsias that make up horticultural part of the objects, I spotted *T. bulbosa* and *T. ionantha*, however couldn't identify the third plant.

As the title suggests. I am of two minds about this type of handicraft. It certainly makes an interesting photographic subject and one can imagine what it will look like once the tillandsias come into flower.

Microtips: Dividing Terrestrials

(by Robert Kopfstein)

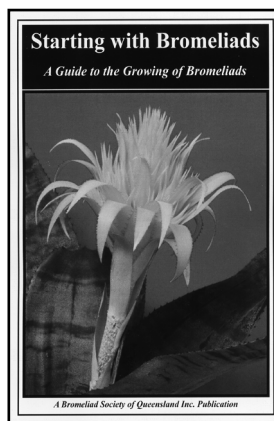
Reprinted, with permission of the Bromeliad Society International, from the Journal of the Bromeliad Society, May-June 1997, v. 47 (3) p. 131.

For those of us who love to grow the terrestrial bromeliads (hechtias, puyas, dyckias, deuterocohnias etc), one of the more unpleasant chores is dividing the plants when they pup. An old butcher knife will work, but often that requires lots of arm work. What works better is a drywall saw; it is cheap (under three dollars), and readily available at any home improvement centre.

Bromeliaceae

The Book!

“Starting with Bromeliads” is 100 pages in length and contains over 200 colour photographs of bromeliads and covers such topics as plant descriptions, caring for bromeliads, and landscaping with bromeliads.



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Ae. 'Del Mar'



Cryptanthus beuckeri

To Feed or Not to Feed

(by Victoria Padilla)

Reprinted, with permission of the Bromeliad Society International, from the Bromeliad Society Bulletin, March-April 1962, v. XII (2), p.23

When this writer first started to grow bromeliads about 20 years ago, fertilizing these plants was not considered necessary. It was believed that because bromeliads were epiphytes, they did not need feeding unlike regular plants that had their roots in the ground. Little by little, however, the fallacy of this way of thinking became apparent, until today about 90% of those who grow bromeliads feed them at regular intervals.

In their need for minerals vital to their existence, bromeliads are no different from other plants. Marston Bates, in his fascinating book: *The Forest and The Sea*, brings out this point and makes some interesting comments on the air plants that grow in the tropical rainforests of South America. As these plants have no direct access to the ground, they are faced with the great problem of obtaining enough food and water to keep them alive.

Mr. Bates tells us, are fortunate in having solved this problem by the formation of their leaves into water-tight tanks, that make first-rate containers for water and rotting organic matter. In fact, bromeliads can hold so much water that they have been referred to as: "marshes in the treetops."

It is the common belief that the roots of epiphytes serve only as a means of supporting the plant to the host tree. According to Mr. Bates, the roots of bromeliads and other air plants are also a means of absorbing food. This food may be obtained from the humus or debris that may collect in the cracks in bark

of the tree, or from the fungi that are found living in close relationship with the roots of many plants.

As many plant explorers well know, the roots of epiphytes also serve as the nesting sites for ants, which Mr. Bates says benefits the plant in two ways. First, the material that the ants collect to build their nests acts as food for the plant, and second, the ants provides a means of defence for the plant against those avid human beings that desire to bring the plant home to their greenhouse.

If our bromeliads need food in their native habitat, it would most certainly seem that they need fertilizing when brought under cultivation. For those who grow their bromeliads outdoors on trees or in the ground, feeding is probably not necessary; but for those who must raise their plants in pots under artificial conditions, fertilizing must be resorted to if the plant is to reach its optimum beauty.

Practically all the members who feed their bromeliads use a liquid fertilizer, weakly diluted. What kinds of fertilizer are used? The answers most frequently submitted were as follows: "anything I have around the house", "the same as I feed my orchids", fish emulsion, Orthogro, Rapid-grow, and Hyponex. It would seem from the wide diversity of answers that "anything goes" so far as feeding is concerned, as long as the fertilizer is a well balanced one and is applied at regular intervals.

The BSQ Web Site

Don't forget that the Society has a web site. We place urgent and general information and information on the site. It also is a resource for smaller societies to get articles for their newsletters.

The URL is:

www.bromsqueensland.com

Speculation on the Starting of Side Shoots

(by Roger K. Taylor)

Reprinted, with permission of the Bromeliad Society International, from the Bromeliad Society Bulletin, July-August 1956, v. VI (4), p. 64

The plant hormone, auxin, formed in the growing parts of plants, plays a number of roles, among them are the diverse ones of both stimulating and inhibiting growth. The direction from which the larger amount comes, that is to say, the auxin balance, determines which effect predominates; auxin from above inhibits, from below stimulates. Thus, it is a common experience following the removal of the growing tip of a shoot, that one or more lateral buds will develop; as long as the tip is present its auxin keeps the lower buds dormant.

The views have been held that on the one hand deep planting, on the other hand exposure to light, favors the development of suckers on bromeliads. It has occurred to the writer that to whatever extent these ideas are justified, the common factor actually responsible may be the removal of leaves—directly when they are taken off to give access of light to the plant base, indirectly when deep planting induces rot and the ultimate disappearance of the lower leaves.

When the leaves are gone their auxin no longer holds the buds at their bases dormant, and the suckers can start. In similar fashion, the growing of side-shoots after the central growth of the plant is checked, by blooming or otherwise, and the observation that from a single plant a large number of suckers form

when they are successively removed, may be rationalized.

Perhaps this notion, though of little or no practical significance, may serve to unify some apparently unconnected observations.

In The Next Issue

In the next issue we plan to present an article on desalination for those who are serious about their plants. Ross Stenhouse is researching this very interesting subject.

Regular contributor Rob Reilly will be presenting an article in the series he has been presenting on Neoregelias.

In the Nov/Dec 2006 issue of this journal we presented "Some Neoregelias", In the Jan/Feb 2007 issue we presented "More Miniature Neoregelias: Part 1" in the next edition Rob's article will be "More Medium-Sized Neoregelias"

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Wot's in the Conference

Bromeliads Downunder, World Bromeliad Conference, 24-29th June 2008, Cairns

Registrations are still coming in to beat the next Early Bird Rate of 30th June 2007. If you are planning to attend I suggest you sign up while the exchange rate is around 80 cents. The Registration Form is downloadable from the web site under 'Forums' at www.bromeliadsdownunder.com with how to complete details.

There are lots of plans and jobs being done, keeping us out of trouble. The Bumper Stickers with the logo and "Crikey we likey, even the spiky" have already been popular and we have more at \$3 each - just ask. Hat badges and mugs have been designed and ordered - you will love them. I'll bring some to the May meeting.

Bromeliads Beachside Port Macquarie 21-23 September 2007

Registrations: I am fully aware that some bromeliad lovers are saving their money for WBC 18 Cairns in June 2007.

To 1st April I have registrations for 119 Delegates and 127 for the Banquet and I know more intend to attend. The Registration Form is downloadable from the web site under 'Forums' at www.bromeliadsdownunder.com Once I reach 170 Delegates, no further registrations will be accepted. The Early Bird rate finishes on 30/6/07. For those who want to pay by direct debit: BSB 034-664 20-4263 Westpac, Cairns Central. "Cairns Bromeliad Society Inc. Conference Account".

Timbertown - optional trip, Friday morning will be by boat, then bus to Tim-

bertown, Devonshire Tea and two hours to enjoy the heritage village entertainment. Return by bus and boat for lunch at Rydges. \$48 per person.

There are many attractions and available trips in the immediate area within easy walking distance from the hotel. We will provide a list with discounted charges for all attendees.

Bromeliads 14 – Beachside Programme - interim plan @ 1/4/07

• Thursday – Registration open, set up Displays, Show entries, Sales plants.

5.30 – 6.30pm Happy Hour.

6.00pm Official Opening & Introduction of Speakers.

• Friday – Final set up of displays, sale plants and Show entries.

8.00am Optional tour 1/2 day to historic Timbertown - boat leaves at 8.00

Seminars: 1.30pm to 4.30pm.

4.30pm Future Conferences meeting

Plant Sales: 5.00pm – 7.00pm

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- Saturday – Seminars 8.30 am to 4.00pm.
Plant Sales 4.00pm – 6.00pm. Rare
Plant Auction –7.00pm
- Sunday – Plant sales 8.00am – 9.30 am
Seminars 9.30 – 1.00pm Includes
workshop.
Lunch 1.00 pm
Pull Down & Pack up.
Banquet - 6.30 pm
Our events website www.bromeliadsdownunder.com is full of information and regularly updated as news is available.

What are the Judges Looking For?

These guidelines have been compiled from notes supplied. It is hoped that by knowing what the judges are looking for with the presentation of plants, more members will enter the plant competitions.

Cultural Perfection

Container: clean, chipped, cracked, appropriate size

Mix: right depth, clean top dressed

Plant: centred, straight, correct depth in container, damaged leaves, trimmed leaves, leaf removal complete, excessive removal of lower leaves, leaves have wide and narrow areas, elongated, gaps between leaves, folded or channelled leaves, mineral deposits, water spots, algae, dust, debris.

Conformation

Shape: From above the plant is symmetrical; in profile the plant has the typical shape for the species, stem straight, cup centred, natural colour destroyed by gaps between the leaves.

Too much leaf trimming, excessive or incomplete removal of basal leaves.

Leaves: appropriate shape, width, length,

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and in the right numbers for the species.

Inflorescence: correctly shaped, sized and coloured for the species.

Colour and Marking

Colour: is maximal, bleached, fades, lighter on one side, colour breaks, scurf is disturbed.

Markings are clear, intense, evenly distributed, bars, hieroglyphs, longitudinal lines, brightly coloured leaf tips, typical for variety are present.

Inflorescence

Size is optimal, larger than usual, under-sized, blooming prematurely

Quantity if bloom present is sufficient or outstanding or minimal, well branched, mature flowers present, scape bracts removed, at beginning of bloom cycle, in berry.

Quality of scape, scape and floral bracts fresh, spent blooms and bracts, pollen on foliage, looks old.

Colour vibrant, washed out, uneven, colour breaks.

Difficulty of Cultivation

Plant is extremely hard to maintain,, plant sometimes endures, but rarely looks happy, of simple culture, usually is browned tipped, or much trimmed when grown and shown.

Maturity

Optimal maturity

Difficulty of Cultivation

Is the plant extremely hard to cultivate.

Trichome: The scale or hair found on the leaves and other organs of moth bromeliads.

Self: To pollinate a flower by its own pollen or by pollen from another flower of the same plant.

Scale: Minute absorbing trichomes or hairs through which many bromeliads obtain their water and nutrients. Also a number of kinds of minute sucking insects that attack bromeliads., the adult scales being flattened, disk-like, and immobile.

GreX, Cultivar and Plant Registration

Author: Ross Stenhouse

There are a number of members within our society who regularly tell me that I should be labelling the photographic illustrations in this journal with their GREX.

These comments usually prompt me to think what is a GREX and what are its advantages over cultivar names that I normally use. If I am to understand the point they are making, I need to understand what the terms "GREX" and "Cultivar" mean.

The Bromeliad Society International (BSI) web site gives the definition of a "GREX" as follows: *"a term that means "seedling batch" (all the plants resulting from making a hybrid). More often than not a GREX, especially one with complex hybrids in the cross, will contain plants differing significantly in appearance."*

On the other hand, the same site makes the following explanation about a "cultivar": *"A CULTIVAR is an individual that has been selected from a GREX because of a particular attribute or combination of attributes"*.

Assuming the GREX contained a cultivar which was worth further attention, the next step is to ensure that cultivar produces consistent and stable characteristics. This is achieved by propagating several generations of pups from that cultivar and its descendants to ensure that they breed true to form.

Once having established that the cultivar is both "worth having" and its pups "Breed true" the next step is to register them with the BSI using the process as outlined on their web site http://www.bsi.org/brom_info/cultivar/instructions.html

Now knowing the above, am I any

better informed in my decision about which name to put under the images used as illustrations in this journal?

Not Really, there likely a case could be made to display both, the GREX gives the parentage, the registered cultivar name tells which particular cultivar was selected from the GREX and that a set procedure has been followed to ensure it breeds true and the final result of that procedure has been registration with a unique name.

If you consider the points raised above it becomes clear that a new cultivar that is going to be distributed to others needs to be registered to give the formality to its name and to ensure that the name to be used is unique to that particular cultivar.

Society Field Day

Bus Trip

27th October, 2007

Author: Nancy Kickbusch

Going first to home of Jim and Beryl Batchelor, 10 Kevin, Street, Capalaba - Motning Tea. This is a garden not to be missed.

Then to home of Jenny and John Catlin, 17 Pelican Drive, Jacobs Well, - Well, lots of bromeliads and other rare plants, lots for sale. Please bring your own lunch.

Leaving Uniting Hall, 52 Merthyr Rd, New Farm at 8.00 AM. Pick up at Palmdale Shopping Centre, Logan Rd, Mt Gravatt, 8.15 AM

Arrive back at New Farm 4.30PM.

Must book and pay at September meeting. Price &15 each.

Contact:

Nancy Kickbusch

Ph. 3300 1704

Names to be Changed.

We have been prompted by Rob Smythe of Townsville to act on the following example of what happens if plants are distributed without registering names. Simply put, one action precipitated a series of subsequent actions.

Briefly the series of actions are as follows:

- An unregistered plant was being grown in Queensland as *Neoregelia* 'Kathleen'. A different plant registered in USA as *Neoregelia* 'Kathleen'. The Queensland plant was then registered as *Neoregelia* 'Yellow King' which could well be the same as *Neoregelia* 'Golden King' but the connection was not proven.

- An unregistered plant is being grown in Queensland as *Neoregelia* 'Bill Morris' however this plant is the same as the registered *Neoregelia* 'Purple Haze' from Olwen Ferris and which is not variegated. If you have any of these plants labelled as *Neoregelia* 'Bill Morris', you should rename them.

- Peter Tristram started calling his Skotak variegated hybrid *Neoregelia* 'Purple Haze' but he quickly changed the name to *Neoregelia* 'Purple Glaze'. Unfortunately it appears some could have been sold under the old name.

- *Neoregelia concentrica* 'Albomarginata' where the leaves are leathery as you would expect in a true species *concentrica* is now registered as *Neoregelia* 'Bill Morris'. An almost albino form of 'Bill Morris' has been registered as *Neoregelia* 'Monty'

This is sure confusing and these problems would not have arisen if names had been registered!!!

Light and Colour

(by Victoria Padilla)

Reprinted, with permission of the Bromeliad Society International, from the Bromeliad Society Bulletin, January-February 1961, v. XI (1), p.8.

What does it take to bring out the optimum colour in bromeliads? Usually, one can only find out by experimenting. Light is a chief requisite. From my own experience, I have discovered that my plants develop more brilliant foliage in my greenhouse where the humidity is kept at 70% than anywhere else. For example, *Billbergia* 'Fantasia', *Billbergia. amoena* var. *viridis*, and the pink form of *Aechmea ramosa* achieve a greater beauty of coloration in the greenhouse than when grown under comparable light conditions either outdoors or in the house.

But it would seem some bromels need more than light and humidity. I wonder whether some plants do not resent being brought down from a high elevation to live at sea level. I have had poor experience with

the delightfully colourful vrieseas gathered in the highlands of Costa Rica, and vrieseas collected in the mountains of Panama. All lost their colouring in six weeks.

This was also true of *Guzmania danielii* from Ecuador. When I first obtained this plant, the foliage was striking because of its maroon undertones—today it is just a muddy green. I do not think that the alkaline content of the water is a factor, for I have given these plants only rainwater—only to no avail.

Travelling up Townsville Way?

The Townsville Bromeliad Study group would love to hear from anyone travelling up their way.

Don't forget that you can also contact Rob Smythe (whose articles often grace the pages of this journal). Rob also lives in Townsville. I am sure you would enjoy seeing his garden. We have an article featuring some of his plants in this edition (See "One Day in the Garden" - pages 10-17).

You can make contact with them by telephoning **07 4778 6876**

Calendar of Events

April 28-29th - Sunshine Coast Bromeliad Society Bromeliad Spectacular - Millwell Rd Community Centre (Eastern End Millwell Rd) Maroochydore. Ph 5496 7795

May 19-20th - Australia's open garden scheme "Plant Fail at Woodston" - All forms of plants and products - Hughes Rd East, Dakabin. 5 minutes off the Bruce Highway - Exit at Boundary Rd/Narangba. 9am-4.30pm

October 14th - Field Day at the home of Viola Hamilton. Viola's garden is also part of the Australian Open Garden Scheme held each year. The address is 280 Beaudesert - Beenleigh roads in Bahr Scrub just south of Beenleigh

Nov 19-11th. - Bromeliad Bonanza - Spring Show and Plant Sales at Mt Cootha Botanic Gardens, 8 am to 4 pm Saturday, 9 am to 3 pm Sunday.

December 6th - Society Christmas Party

GENERAL MEETINGS of the Society are held on the 3rd Thursday of each month except for December, at the Uniting Hall, 52 Merthyr Rd., New Farm, Brisbane, commencing 8 pm. Classes for beginners commence at 7.30 pm.

Plant of the Month Programme for 2007

JANUARY:	Aechmea, Alcantarea, Ananas, Androlepis, Areococcus, Ayensua.
FEBRUARY:	Billbergia, Brewcaria, Brocchinia, Bromelia.
MARCH:	Canistropsis, Canistrum, Catopsis, Deinacanthon, Deuterocohnia, Disteganthus, Dyckia.
APRIL:	Edmundoa, Encholirium, Fascicularia, Fernseea, Fosterella, Glomero pitcairnia, Greigia, Guzmania.
MAY:	Hechtia, Hohenbergia, Hohenbergiopsis, Lindmania, Lymania, Mezobromelia.
JUNE:	Navia, Neoregelia.
JULY:	Nidularium, Ochagavia, Orthophytum.
AUGUST:	Pepinia, Pitcairnia, Portea, Psuedaechmea, Psuedananas, Puya.
SEPTEMBER:	Quesnelia, Racinaea, Ronnbergia, Steyerbromelia.
OCTOBER:	Tillandsia.
NOVEMBER:	Ursulaea, Vriesea, Werauhia, Wittrockia.

Competition Schedule for 2007

Novice, Intermediate and Advanced in each Class of the Mini-Shows and in the Popular Vote.

January: MINI-SHOW

Class 1: Aechmea - species and hybrids

Class 2: Vriesea - species and hybrids

Class 3: Dyckia - species and hybrids

Class 4: Any Other Mature (flowering) Bromeliad - species and hybrids.

February: POPULAR VOTE: Any Genus – species or hybrid

March: POPULAR VOTE: Any Genus – species or hybrid

April: MINI-SHOW

Class 1: Bromelioideae not listed elsewhere in the schedule – species and hybrids.

Class 2: Guzmania - species and hybrids

Class 3: Pitcairnia and Pepinia - species and hybrids

Class 4: Any Other Mature (flowering) Bromeliad - species and hybrids.

May: POPULAR VOTE: Any Genus – species or hybrid

June: POPULAR VOTE: Any Genus – species or hybrid

July: MINI-SHOW

Class 1: Billbergia - species and hybrids

Class 2: Tillandsioideae not listed elsewhere in the schedule – species and hybrids.

Class 3: Neoregelia - species and hybrids – up to 200mm diameter when mature.

Class 4: Any Other Mature (flowering) Bromeliad - species and hybrids.

August: POPULAR VOTE: Any Genus – species or hybrid

September: POPULAR VOTE: Any Genus – species or hybrid

October: MINI-SHOW

Class 1: Neoregelia - species and hybrids – over 200mm diameter when mature.

Class 2: Tillandsia - species and hybrids.

Class 3: Pitcairnioideae not listed elsewhere in the schedule – species and hybrids.

Class 4: Any Other Mature (flowering) Bromeliad - species and hybrids.

November: POPULAR VOTE: Any Genus – species or hybrid

Note 1: Class 4 in each Mini Show schedule provides for any flowering bromeliad that would not be in its prime for the appropriate Mini Show.



Neoregelia 'Mini Skirt'

Bromeliaceae

48

Mar/Apr 2007