

Bromeliaceae



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Bromeliaceae

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BROMELIAD SOCIETY OF QUEENSLAND INC.

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QUEENSLAND. 4006. AUSTRALIA

General Meetings are held on the Third Thursday of Each Month Except December at the
Uniting Church Hall, 52 Merthyr Road, New Farm, Queensland, commencing at 7.30 p.m.

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FRONT COVER — *Tillandsia dyeriana*

THE FRONT COVER of *Bromeliaceae*, January / February, 1999, featured *T. dyeriana* sporting a brilliant orange-red inflorescence with small white flowers. At first I was concerned — my plant had a single spike instead of the multiple I'd seen on other specimens. But its depth of colour combined with sturdy leaf and strong growth made up for any misgivings I may have had.

As a member of our society's Study Group, I was motivated to try to produce seed. Fortunately I was able to borrow another member's plant (multi-bracted) flowering. As each flower showed signs of its receptiveness I began pollinating. The photographed plant is the result of my efforts.

Not all flowers produced a seed pod, but as you can see the results were worth the effort. Eight pods matured and seed was distributed to Study Group members. Most seed germinated and while there have been casualties we have ten-month-old seedlings looking good.

Plant grown by BOB CROSS.

Photographed by DOUG UPTON.

BACK COVER — *Nidularium linehamii*

THIS IS ONE of the interesting plants Derek Butcher saw in Cairns while attending the Bromeliad X Conference. For Derek's story about *Nidularium linehamii*, and other eye-catching plants he saw while at the conference, turn to page 9.

Plant grown and photographed by DEREK BUTCHER.

Looking for Christmas Cards?

Why Not B.S.Q. GREETING CARDS?

Colour Photographs of:

Guzmania danielli, Guzmania Orangeade, Vriesea Asahi, Group of Vriesea Hybrids,
Tillandsia bulbosa, Tillandsia duratti, Aechmea cucullata,
Aechmea servitensis v. exigua, Portea fosteriana, Group of Neoregelia Hybrids.

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PUBLICATION DEADLINES for *Bromeliaceae*

January / February, 2000, Edition..... December 15, 1999

March / April, 2000, Edition..... February 17, 2000

*Please send all contributions to:***The Editor, Ray Nicholson, 11 Malory St, Balmoral, Qld. 4171.****Phone (07) 3399 5296**

As promised in the last issue, we reprint an edited version of Bob Smythe's address to Cairns Bromeliads X. The complete article (together with Bob's references to his slide presentation) is printed in full in the Conference Book.

Growing Neoregelias in the Dry Tropics

By **ROBERT (BOB) SMYTHE**, Master of Science — affectionately called 'Professor' (when he is at home), due to his studies and knowledge in many areas. Bob is involved with horticultural (orchids, Australian plants and bromeliads), scouting (including handicapped scouts), mental and handicapped health groups and societies. He has lectured at universities both in Australia and overseas, and has taught at TAFE in the evenings.

AS I AM a relatively new grower, 4-5 years, I can only say what I do. In no way am I trying to tell you what you should do, but I am challenging some of the set gospels of bromeliad culture. I am very considered in my thinking and hope I convince you to experiment.

My title is correct. Interestingly, Townsville is in the dry tropics albeit in January 1998 we had 23 inches of rain in 24 hours. My objectives:

1. To grow Neoregelias in the Tropics where possible in full sun.
2. To not have any mossies breeding in the vases.
3. To have no scale or any other diseases in my collection.
4. They are to be integrated into a garden complementing orchids and ferns as epiphytes and complementing tropical garden and potted plants like Anthuriums and Palms.
5. Artificial structures to protect them from the sun are not wanted.
6. To emulate the everglades (without the swamp).
7. No pots. To eventually have plants in the soil and on trees.

My Advice to anyone starting off an interest in growing a new genera of plants:

1. Go inside and turn off "Bourke's Backyard" (quote: "fertilize a lot—it kills the mozzies").
2. Walk around your neighbourhood and see what others are doing.
3. Visit your Botanic Gardens.
4. Visit an enthusiast.

If you are real keen get a book like Padilla's and read it. Then look up a map of where they grow in the wild. Get to know the species. It might help to learn a bit of botany: their family tree for example.

Where do Neoregelias grow? Generalising, they grow in the outer areas of tropical rain forests. Compared with latitudes where they grow in South America, Neos. won't be common around Cairns but would be

quite plentiful from Townsville to Brisbane with maybe a few pockets of concentration (*tongue in cheek!*) around Bundaberg, Gympie and Alexandra Headlands; mostly at sea level with an elevated pocket at Palmwoods. Brisbane would be the lowest point of their range.

My perspective: I am *not* growing plants in pots for competitions. My plants *won't* have good conformation, and they *will* have holes from dropping twigs and slashes from whipper snippers (and have been known to be squashed by car tyres!). They will *not* be housed. Some mornings they look like they are covered with snow: these are the mornings after big Ibis flocks settled in the trees. I want them *looking natural*, so no shade houses. Plenty of *natural* fertilizer at times.

Growing: As my plants are for tree or terrestrial culture and not for the show table, I've developed a rather unremarkable way of growing them in the ground. How *can* you grow Neoregelias in the full sun in the tropics?

1. Plant at the right time. Winter.
2. Plant right size. Plenty of roots.
3. Plant right type.
4. Have porta-shade at the ready (potted palms).
5. Plenty of watering.
6. Don't despair if they burn the first summer.
7. Cool them off on hot days (my garden survived 53C in shade).
8. Shift them to shade if they don't adapt by second summer.
9. Remove faded and jaded leaves after first summer.

Where do you plant your Neoregelias? Those suitable for full sun: species and crosses of *cruenta*, *Oleus*, *fosteriana*, *farinosa*, *fireball*, *concentrica*, *spectabilis*, *compacta*, *marmorata*, *magdalene*. Suitable for bright light: Variegates of the above, plus *kautskii*. Better in shade: *carolinae* and its many variants. Heavy shade: most of the *carolinae*-type variegates look good in heavy shade. Tree lovers: *compacta*, *ampullacea*, *cyanea* and just about any that produce a rhizome. Wet spot lovers: *lilliputiana*, *tristis*.

Neo.Takamura takes maximum amount of sun. In the tropics, the grey-green plant in shade has the deepest colouration by middle of winter. It does have more yellow in its makeup during hotter months but all plants do as carotene (the yellow pigment) is the plant world's form of sunscreen.

Neo. Rosy Morn. (morrisoniana) is absolutely the gem of the north. It grows to 70 cm across and has a very large number of leaves. I don't

know how many as every time I try counting them it seems to have grown one more. At its peak when flowering in October.

Grouping of variegates: Some need some shade and look marvellous around flowering time. With more sun you can spread the colour; with less sun and more fertilizer, especially epsom salts, you can produce a nice contrast. *Neos. Heck, Aussie Dream-Dreamtime, Inferno, Jaws Too and Flesh.*

Variegates grown in high shade areas: *Neos. Arching Star, Roys Special, Solar, Flare, Flesh, Rachael.*

Shade area, direct sun in winter: *Neos. Aussie Dream-Lovely Lady, Royal Burgundy* (a parent of *Voo Doo*), *Solar Flare, Lavender Flair.*

Scale Control

The Fly Spot scale is everywhere in the tropics. I am not sure if it is present on other plants but it turns up from time to time on my plants though I don't consider I have it in my yard. Most growers treat it by putting systemic insecticide in the vase. This of course is not good if you like your frogs. Others put it in the potting mixture which should minimise damage to the frog population. The small size of the scale probably makes it too small a target for the predators.

When these creatures are at the crawler stage they are vulnerable to attack by corrosive chemicals. They are in the crawler stage in Autumn and Spring so I sprayed plants with ammonia for six consecutive Saturday mornings during these periods. This worked but I made a big discovery — Canola Oil. All chemicals I use are from domestic supplies:

White Oil Mixture: 750ml Canola oil, 3 tablespoons Sil detergent and 1250ml water.

Scale Spray: 300ml white oil mixture, 300ml vinegar or ammonia, 4 litres water. Any brand of vinegar but "Superior" brand ammonia as my tests have shown it does not have any phytotoxic detergents added.

When plants are colouring up (winter in the tropics), use the vinegar formulation. When plants are in growth use the ammonia formulation.

It is most important that the excess film of oil is washed off: spray in the late afternoon and wash off next morning.

"Wot, use white oil? Never! All the books can't be wrong". I will now explain scientifically why Canola is different.

Canola functions quite differently to commercial white oil made from paraffin or mineral oils. Paraffins and aromatics have phytotoxic components and do not degrade quickly enough under the influence of

ultra-violet light, air and moisture. They poison and smother the plant as well as the pest if used incorrectly. I have not tested olive oil, peanut oil and the like but see no reason why they would not work to a lesser degree. Linseed oil, used in paint because it forms strong films, is probably the best known film forming oil.

Look forward to a more detailed paper explaining the chemistry and the problems that may occur if the oil is too thick. A simple test you can do is spray a bowl of water and put it out in the sun. The oil should turn into a white waxy film in a couple of days if the light level is OK.

But . . . Canola white oil functions differently: it would smother the insect then degrade within a few days in bright light and more slowly in the shade. Usually it has degraded in two days in bright light and can be washed off. Perfect—it does the job and doesn't hang around. Take the usual precautions like not spraying on hot sunny days. Spray in the evening and wash off the excess next morning.

Test soft and delicate plants. I have known the ammonia formulation to burn delicate plants when it lodges between two soft leaves. The oil if put on too thickly can also damage soft leaves emerging from the water (more about this in a future article). Overcast days are the best times. I was very careful at the start but now I am very blasé. I don't even measure amounts these days. It is a wonderful treatment without any nasty insecticides.

If you don't know much about the hazards of insecticides I suggest you get your bookshop to order a copy of "Silent Spring" by Rachael Carson. Cost is about \$16 and is the second most important writing after the Bible as far as I am concerned.

Mossie Control

Neo. compacta was used in my experiments and watched closely for twelve months and not one larvae was found. A natural surfactant is suspected by me as a mossie control. Mossies like to breed in old 'mother' neoregelias. In my experiments the pH of the water breeding mossies was between 5.77 and 6.04. They liked the water to be tea coloured. Vinegar or boric acid were suitable additives to prevent mossie development. Insecticides of course will do the same.

Mossies do not breed in clear water, they need food. I have sat clear water containers in a tray of water and no mossies; then added tea coloured water to the same tray and still no mossies in the clear containers but everywhere in the tray.

Predators: I have harvested the microscopic *mesocyclops* from the

local swamps and found they control mossies very well: not one wriggler in thousands of plants over two years. I do keep the vases reasonably clean, full and with no litter in them. Water temp. can get up to 33°C but still no mossies. The predators must shelter in the lower leaves. This is why I say keep vases full and allow them to move around.

I have been trying to breed the *mesocyclops* resistant to one insecticide. I chose the organophosphate 'Grubkill' because it is available from a national chain store. After heavy rain I give a light spraying of dilute insecticide (no more than 1 teaspoon to 4 litres) mixed with canola white oil (50 ml to 4 litres). I wrote this a year ago but I don't do it now as I have a young puppy which drinks from the vases with unpleasant (to say the least) results! The reason I use it very weak and put a coating of oil on the water is because there could be mossies present. The oil will smother them. This process may otherwise produce an insecticide resistant mossie.

Mesocyclops stored in tubs take about a month to build up after heavy rain. I would guess a week in neoregelias as it is only the vase that washes out fast. The oil lasts a day or so and the insecticide lasts long enough for *mesocyclops* and other predators to multiply. Frogs are good to have around to spread the predators.

The most common mossie found is *Aedes notoscriptus*. I have never found a single *Aedes aegypti*. They look very similar . . . if anyone accuses you of breeding the dengue mossie, challenge them armed with this knowledge.

Fertilization: Simple — fertilize a lot if you want lots of pups to swap or want long green leaves. I fertilize (in the tropics) during the wet season then stop for the colouring-flowering dry cooler season. The best results for colour is where they do not fertilize. Plants will be smaller and leaves proportionately wider as well.

ARE YOU STARTING TO LOOK AROUND FOR

Christmas Presents?

Why not give

BROMELIAD BOOKS & CARDS

SEE PAGE 16 IN THIS ISSUE

Eye-catching Plants at Cairns

By DEREK BUTCHER

WITH over 100 other bromeliad addicts, I was fortunate in being able to attend Bromeliad X in Cairns. Some of the more interesting plants which caught my attention were:

***Nidularium linehamii*:** In 1990 Tom Lineham, past Editor of the *BSI Journal*, made a trip south and got himself involved in Bromeliad collecting with Elton Lerne (see *BSI Journal* 1992, pages 160-167 and 206-213, "Bromeliad crawling in Brazil"). I have some idea of Tom's sense of humour because I normally do my Bromeliad *crawling* in Brisbane or Sydney!

In the *BSI Journal* of 1993, pages 199-203, a plant collected during that trip was described as *Nidularium linehamii*. The photographs in that edition were not an inducement to acquire said plant! I had been bugging Tom ever since as to why he was not growing HIS plant and he still isn't! He says it is too hard to grow! It comes from near the Monastery called Caraca Park in Minas Gerais.

I acquired my plant from Dennis Cathcart in 1996 and it survived quarantine. It flowered in 1998 and had the most impressive FLOWERS I had seen on a *Nidularium*. I am now nurturing the offsets.

One offset found its way to Brisbane via the rare plant auction at the Cairns Conference. The challenge is now on! If I can get such an inflorescence with minimal fertilizer supplement and Adelaide water what joys are there for its future in Queensland?

***Neoregelia marmorata X spectabilis*:** In the recent past I have only managed to get as far north as Townsville when I saw a plant we called *Neoregelia marmorata X spectabilis* down south but up north it had an additional 'Julian Nally' on the label. Further investigations revealed that the plant probably came to Australia via Bill Morris or Robert Tucker.

In the 1950s Julian Nally grew this and similar *Neoregelias* by the acre at Gotha which is near Orlando, Florida. Down south in Adelaide it is a *Neoregelia* that could best be described as a bit drab looking so I could not understand Julian's enthusiasm. The Far North Queensland dry season seems to bring out the best in *Neoregelias* and as Rob Smythe points out ALL *Neoregelias* turn red at this time of the year! So *Neoregelia* 'Julian Nally' is an attractive plant which I saw being grown widely in the Cairns area.

Neoregelia 'Purple Haze': *Neoregelia* 'Purple Haze' caught my eye too, only they were labelled *Neoregelia fosteriana*!

This plant came to Australia as *Neoregelia fosteriana* in the 1960s and Olwen Ferris just could not understand how it got this name because it was nowhere near the description. She called the plant 'Purple Haze'. Most of us down south changed our labels or lost the plant due to lack of interest because it was not a NEW plant. Nobody bothered to ask funny questions of the Cairns lot!

You may be pleased to know that this plant is making a return trip to the USA but this time to Bird Rock Tropicals with Olwen's correct name! What is intriguing is that this plant is probably the *Neoregelia fosteriana* that Mulford Foster used to create *Neoregelia* 'Morris Henry Hobbs' and its relatives because of the links of traits of the alleged parents. Only recently has the true *Neoregelia fosteriana* been found by Harry Luther in one or two collections in Florida.

In my search for this elusive true species, none of the nurseries I visited knew what the true *Neoregelia fosteriana* looked like although I was offered plants with this name on the label! None looked like Olwen's 'Purple Haze' either! So I came home empty handed

In my thirst for reading old literature I have come to the conclusion that Mulford Foster was not a good hybridist. His records were almost non-existent (not like Grace's stud book) as he applied the hit-and-miss technique.

So I am hoping that when Pam Koide gets her 'Purple Haze' going, comparison may be made with similar looking plants in the U.S.

Vriesea 'Hoelschenana': There was another instance of how plants spread around with the wrong name. Peter Huddy and I both mentioned in our talks the *Vriesea* 'Kitteliana' saga — Peter mainly because of his search for a system to identify *Vriesea* hybrids and myself, mainly because of Vic Przetocki doing hybrids in Perth!

Both Peter and I agree the plant that came to Bill Morris via David Barry in the USA via Europe in the 1950s and got to Vic in Perth is really a V. 'Hoelschenana' which has been written about at length.

What Peter and I disagree on is the other V. 'Kitteliana' which had a name change from V. 'Hoelseheriana' by the Queensland Study Group many years ago based on information in Wilson's *Bromeliads for Modern Living*. We base our information on the original description and drawing in 1890! I think it is a different problem. The jury is still out but we both agree it is not V. 'Kitteliana'.

How Good Are Your Plants? PART 2

Edited extracts from the BSI's *Handbook for Judges*

General Introduction to the Bromeliaceae Family

THE FAMILY Bromeliaceae is one of the larger plant families and one of the most diversified. This diversity of form that exists in its 2000-plus recognized species is what makes their study and collection so fascinating. It is virtually impossible for one person to have viewed the majority of the species, and the thousands of hybrids. No-one can collect or grow them all. Another interesting fact that leads to confusion is that the same plant (genus, species, variety, form, hybrid or cultivar) will look different when grown under different growing conditions. Bromeliads respond to all changes in their environment, but their response to changes in light intensity and duration is dramatic. Sometimes even the more expert growers are deceived by the appearance of a plant whose growing conditions are "different."

Geographically, bromeliads are found in the U.S. from Virginia to Florida and then across the southern states in a gentle arc through Louisiana and Texas, then down through Mexico, Central America and the West Indies and finally into South America all the way to central Argentina and Chile. Only one species is found outside the Americas: *Pitcairnia feliciana* comes from French Guinea in West Africa.

Bromeliads are remarkably tolerant and adaptable plants. They are survivors! They can be found growing where salt sprays upon them as they grow on the seashore, and then into the extreme heat and drought of the coastal deserts of Peru and Chile where they flourish without roots in an area so stark that even cacti are unable to grow. They are found in the filtered, broken light of the rain forest, and perched high in the tree tops where there is a great deal of air movement. They grow from sea level in Chile to 16,000 feet in Bolivia. Often they are found growing on rocks and cliffs along the coast. The greatest number of ornamental plants comes from eastern Brazil. It is a veritable treasure chest. No one can satisfactorily explain why, but such is the case. Another area that houses many species of bromeliads is Mexico and down through Peru. More species appear at higher altitudes.

Botanically, the family possesses parallel veined leaves with scales on the leaves. The parallel veining is very prominent in the guzmanias and scales are very apparent in the heavily scaled tillandsias and in some aechmeas, such as *Ae. fasciata* and *Ae. chantinii*, where they are

not only useful, but beautifully ornamental. Botanically, the leaf scales are very significant. According to Dr. Lyman B. Smith, "Of all the characters that distinguish bromeliads as a family, only the leaf scales are unique . . . that is not to say that no other families have scales on their leaves—a great many do. However, in all these other families, the scales are only a protection against loss of moisture, and absorption of water remains a function of the roots. In the Bromeliaceae, the leaf scale is not merely an outgrowth of the epidermal layer, but it has a complex organization with a column of stalk cells beneath it that penetrates the leaf and pumps in the water collected by the scale."

These highly specialized leaf scales are called trichomes and are of a very complex nature. They guarantee a water supply to the bromeliad. They fill much as an accordion would and effectively gather in all available moisture and nutrients from the dew. When dry, they are filled with air and reflect light, making the plant appear white. When you water a bromeliad the air space is replaced by water, the cap of the trichome becomes transparent and the green color of the chlorophyll of the leaf plastids appear. The trichomes act like a piece of filter paper and draw water into the stalk cells.

It is also important to know that all bromeliad flowers are composed of three petals of a form different from the sepals, that the three sepals combine as a unit, and that there are six stamens. Most bromeliads are rosette-shaped which serves as a collecting area for humus and water. While many plants of the Pitcairnioideae subfamily have lateral inflorescences, in the majority the inflorescence is terminal and arises from the center of the plant.

Reproduction is sexual (seeds) or vegetative (offsets). There is great variation in the plants produced from seeds, but usually, unless a sport develops, the plants developed from offsets are true to the parent.

Bromeliads in nature are either saxicolous (growing on rock); terrestrial (growing in the ground); or epiphytic (growing on another plant, usually a tree). They are never parasitic and never take any nourishment from the plant on which they perch.

In terrestrials, the root system is well developed and acts like that in any other group of plants: taking in food and nourishment by means of its specialized cells. In epiphytes and saxicoles, the roots serve for the most part as hold-fasts. They are tough and wiry and serve to anchor the plant to its host. Very little water or nutrients are taken in by them.

The family Bromeliaceae can be broken down into three large subfamilies: A. Bromelioideae; B. Tillandsioideae; C. Pitcairnioideae.

The first subfamily is the Bromelioideae and includes:

<i>Acanthostachys</i>	<i>Disteganthus</i>	<i>Ochagavia</i>
<i>Aechmea</i>	<i>Fascicularia</i>	<i>Orthophytum</i>
<i>Ananas</i>	<i>Fernseea</i>	<i>Portea</i>
<i>Andrea</i>	<i>Greigia</i>	<i>Pseudaechmea</i>
<i>Androlepis</i>	<i>Hohenbergia</i>	<i>Pseudananas</i>
<i>Araecococcus</i>	<i>Hohenbergiopsis</i>	<i>Quesnelia</i>
<i>Billbergia</i>	<i>Lymania</i>	<i>Ronnbergia</i>
<i>Bromelia</i>	<i>Neoglaziovia</i>	<i>Streptocalyx</i>
<i>Canistrum</i>	<i>Neoregelia</i>	<i>Wittrockia</i>
<i>Cryptanthus</i>	<i>Nidularium</i>	

This group of 29 genera has the greatest variety of plant forms. About a quarter of the species belong to the genus *Aechmea*, i.e., about 150 of the 600 species. The plants are mostly epiphytic with rosettes that hold water. A few are terrestrial. Almost all the members of this group are strong plants which adapt well to pot culture and develop strong root systems. They all have spiny leaves and berry-like fruit. The seeds are dispersed by birds or other animals. The ovary is completely inferior except for *Acanthostachys* where it is in slight part superior.

The next subfamily is the Tillandsioideae, and includes:

<i>Catopsis</i>	<i>Guzmania</i>	<i>Tillandsia</i>
<i>Glomeropitcairnia</i>	<i>Mezobromelia</i>	<i>Vriesea</i>

While there are only six genera in the subfamily, one-half of all known species of bromeliads falls here. There are over 400 species of *Tillandsia* and over 250 species of *Vriesea*. Most of the members are epiphytes and all have entire (not spiny) leaves. They have capsular fruits with plumed seeds that are fuzzy and sail like kites in the breeze for seed dispersal. The ovary is superior or nearly so, except for *Glomeropitcairnia* where it is about half inferior.

Subfamily Pitcairnioideae includes the following genera:

<i>Abromeitiella</i>	<i>Deuterocohnia</i>	<i>Navia</i>
<i>Ayensua</i>	<i>Dyckia</i>	<i>Pitcairnia</i>
<i>Brocchinia</i>	<i>Encholirium</i>	<i>Puya</i>
<i>Connellia</i>	<i>Fosterella</i>	
<i>Cottendorfia</i>	<i>Hechtia</i>	

They are the most primitive, often mesophytic, and the oldest forms in the entire family. They are, for the most part, terrestrial and saxicolous, and generally lack the water holding rosettes of the epiphytes. Often they are grass-like in appearance. Their flowers are tubular in form, and their fruits are capsular with winged or tailed seeds.

These are easily dispersed by the wind. Most all of the members are spiny, but a few are completely without spines, e.g., *Pitcairnia decidua*. The ovary is mostly superior with a few species of *Pitcairnia* and *Navia* having inferior ovaries.

In the next issue of Bromeliaceae, Part Three in this series from the BSI Judging Handbook looks at the judging criteria for the sub-family Bromelioideae, genus Aechmea.

North Queensland's Feral Bromeliads!

By DEREK BUTCHER

I MUST SAY how brave Jim Wait was at the Cairns Conference to suggest that *Tillandsia usneoides* is a feral problem. I still believe that he is a bit premature in suggesting that two trees in the Cairns area with aberrant "Spanish Moss" is a problem — but it is good to know.

What I would love to know is whether any follow-up work has been done on Robert Tucker's claim of feral pineapples back of Gordonvale 20 years ago. I have never found a pineapple with seed inside but Robert had found a clump of plants in the "jungle" where they had been long enough to mutate and produce fruit with seed inside. Are the plants still there? If there were a bird or animal with a pineapple appetite surely the seed would have been "passed around" even further.



*A Happy and Safe Christmas
to All Members and Friends*

from

Your President, Office-Bearers and Committee

who also wish you

Great Bromming in the New Year



September Meeting Report

IT WAS pleasing to see two new members in attendance. Len Trevor gave a talk on Cairns Bromeliad X; the "Show and Tell" was conducted by Nev Ryan; and Dorothy Cutcliffe gave the plant commentary on the results of the Popular Vote which resulted:

NOVICE CLASS: 1st I. and D. Hole, *Neo. Charm*; 2nd K. Dawson, *Vr. Fosteriana hybrid*.

INTERMEDIATE CLASS: 1st N. and L. Weir, *Til. Leonamiana*; 2nd D. and C. Cutcliffe, *Vr. Red Chestnut X Ensiformis*.

ADVANCED CLASS: 1st L. and O. Trevor, *Neophytum Galactic Warrior*; 2nd D. and J. Upton, *Neo. Lilliputiana*.

October Meeting Report

PRESIDENT BOB welcomed three new members and also two visitors from the Sunshine Coast who addressed the meeting on the formation of a new Brom group. Neville Ryan gave an interesting demonstration on mounting Tillandsias. Neville and Barry Genn presided at the "Show and Tell" table. Olive Trevor gave the judges' comments on the following results of the Mini-Show:

NEOREGELIA—NOVICE: 1st I. Hole, *Carolineae X Carcharodon*; 2nd I. Hole, *Carolineae X Painted Lady X Concentrica*. INTERMEDIATE: 1st D. and C. Cutcliffe, *Bobby Dazzler*. ADVANCED: 1st B. Cross, *Red Embers X Red Planet*; 2nd L. and O. Trevor, *Blast*.

TILLANDSIA—INTERMEDIATE: 1st D. and C. Cutcliffe, *Fasiculata*. ADVANCED: 1st B. Cross, *Streptophylla*; 2nd D. and J. Upton, *Caput-medusae hybrid*.

Christmas Party, Break-up, November 18

AS USUAL, there will be no competitions at the Christmas Party to be held at the normal meeting venue. Caterers will supply finger food and tea and coffee will be available. Members are reminded there will NOT be a sales table, but there will be a "Show and Tell" table. The

award winners for the points competitions for the Popular Vote and the Mini Shows will be announced. About 50 uncommon plants, to a total value of \$600, are the prizes for the monster raffle.

No December General Meeting

AS IS NORMAL, there will be no meeting in December. Details of the next meeting, competitions, plant roster, and so on, will be in the first issue of *Bromeliaceae* next year.

Study Group

THE NEXT gathering of the Study Group will be at the home of Olive and Len Trevor, 232 Canvey Road, Ferny Grove, at 7 a.m. on November 27 — all welcome.

Field Day

PHYLLIS and Don Hobbs are kindly inviting all members, relatives and friends to a Field Day at their home, 2 Blake Street, Cleveland, on Saturday, November 20, between the hours of 10 a.m. and 4 p.m. Phyllis and Don will help solve any problems you take to them.

Book Prices

DETAILS and prices of some books the Society has for sale have gone haywire in the last three or four issues. Some details may still be incorrect in this issue. Please check prices before making purchases.

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<i>Bromeliads for Everyone 2</i> by Bea Hansen	\$11.50	\$13.00
<i>Bromeliads in Australia</i> by Bromeliad Society of NSW	\$2.00	\$3.00
<i>Growing Bromeliads</i> by Bromeliad Society of Australia.....	\$20.00	\$21.50
<i>Genus Tillandsia</i> by Paul Isley III	\$3.00	\$3.50
<i>A Bromeliad Glossary</i> by B.S.I.....	\$3.50	\$4.00
<i>Bromeliads—A Cultural Manual</i> by B.S.I.	\$4.00	\$4.50
<i>A Guide to Beautiful Neoregelias</i> by S. Zaghini.....	\$20.00	\$20.00

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Brom Planting at Mt Coot-tha

ABOUT 30 members enjoyed the sausage sizzle breakfast at the Mount Coot-tha Botanic Gardens before proceeding to plant the 180 bromeliads they had donated to the project. It was an excellent day out and this new area of the gardens, in time, is going to look great. As there is room for about another 120 plants, perhaps another day may be arranged next year.

Garden Spectacular

OUR SOCIETY once again played a prominent part in the Royal Horticultural Society's "Garden Spectacular" at Mount Coot-tha's Botanic Gardens' Auditorium on October 9 and 10. Most garden clubs and specialist societies in the Brisbane area were represented. With all the time and effort put into the displays, it was rather disappointing to see such a poor attendance from the general public.

Bus Trip to Northern NSW

SATURDAY, October 30, saw lunch baskets, thermos flasks and empty boxes lining the footpath at New Farm prior to 30 (or was it 29?) members boarding a coach to renew acquaintances with old friends at two nurseries in Northern NSW.

All went well down the highway and into Mullumbimby but a few passengers had doubts about where we were going after that! However under Olive's expert guidance, we somehow ended up at the "red mud guard on the right"—the home and nursery of Robert and Melissa Dilling who greeted us with a great morning tea. An inspection of their shadehouses, featuring some great *Guzmanias*, was followed by lunch.

A drive through some beautiful rural settings saw us again on the highway, through Ballina and into Wardell with Don guiding the driver to "Pinegrove", where June and John Buchanan welcomed us and showed us through their nursery and their private brom garden.

Robert and Melissa, June and John were suitably thanked with a small gift from the society. Judging by the way the empty boxes quickly overflowed with plants, it was a great day.

This Month's Top Tip

Ever wished some of your *Aechmeas* had nice smooth scallops on the leaves instead of shark's teeth? Experience has shown there is a very simple way to achieve this: Just put your *Aechmeas* alongside your parrot's cage! Guaranteed to work every time.

New Mini Show Competition

BECAUSE of requests from members, a new section, "Any Other Genus" has been added to all Mini Show competitions. The usual sections will remain as previously. This will commence in January, 2000, and will be notified in the next issue of *Bromeliaceae*. The new section is considered necessary as many members do not have plants in competition condition for the genus stipulated for certain nights, but do have other genera they could show. This should lead to more entries each night and will make for "livelier" competitions, especially with the newer members.

Guess What? It's That Time Again!

MEMBERSHIP FEES for next year will become due in the very near future. Because our Bromeliad Society's financial year ends on December 31, 1999, all members are reminded their subs must be paid before the annual general meeting which will be held on the third Thursday of February, 2000.

In accordance with the Rules of Incorporation, if you have not paid by January 31, 2000, you will not be eligible to vote at the AGM; your name may be removed from the Members' Roll; and you may not receive future copies of *Bromeliaceae*.

You are also asked to give early consideration as to whom you wish to nominate for office-bearers for next year.

Official Notice of the AGM and election of officers will be given in the January / February edition of *Bromeliaceae*.

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Cairns Conference Reports

I COULD NOT get time off work to get to the Cairns Conference but I'd like to know all about it. Will there be a book published and will it be reported in our journal? Can you tell members where the next Australian Conference is to be held and will it revert back to the usual Easter period?—**Very Interested.**

A Proceedings Book has been published and is available for \$20 (plus postage I should imagine). Write to The Secretary, Cairns Bromeliad Study Group, P.O. Box 28, Cairns, 4870 (phone 07 4053 7863). According to the latest I've heard, no date or venue has been decided for the next conference.—Ed

Cairns Bromeliad X

RECENTLY, about a dozen members of the Bromeliad Society of Queensland attended the Bromeliad X Conference in Cairns. It was my first conference, although many others had attended previous conferences. I thought it was marvellous and we thoroughly enjoyed it.

The hosts, led by Lyn and Bob Hudson, were really on the ball and with their helpers organised everything like clockwork. The venue was excellent. Pamela Koide (all the boys, especially our Len, thought her

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better to look at than the broms) and fellow speakers were most informative. I have already tried Bob Smythe's white oil recipe with success.

Olive Trevor's *Neophytum Galactic Warrior*, took the prize for the Champion Brom—but it must have been by only a smidgen from the Brom Owl made (not grown) by Doug and Joy Upton. Hope they try a green frog brom next time!

I have put off my 2000 trip to the Land of the Long White Cloud in anticipation of a future brom conference! Can't wait for the next one in two years wherever it may be.—**Dorothy**.

Fertilizers

IN THE last issue, you published a snippet about foliar fertilizer. Well, I am confused because I often read articles for and against using either one type of fertilizer or the other or in fact whether to use or not to use any fertilizers! Is there any authoritative or scientific article about fertilizers; and if there is could you please publish it? —**Confused**, Brisbane.

If there are a million growers of bromeliads, I'm sure you'll find a million different answers to fertilizers—like potting mixes! I think popular consensus indicates using both is most popular with serious growers; but then I know growers who do not use any with exceptionally good results. A lot depends on your local conditions: light, sun, watering, temperature, and so on. I believe there is a scientific article in existence which I will try to find.—Ed.

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Ant Gardens

SOME TIME AGO you wrote about ant gardens in forest trees in the old "All and Sundry" column but you were unable to name the bromeliad seeds the ants cultivated. I'd like to know if you have more information as it is very interesting. Can you please name the bromeliad seeds and the ants for our school project?—**Ant Buff**.

Sorry, Ant Buff, I don't know but if anyone does, please drop me a line as I'm interested too.—Ed.

On the Lighter Side

BROMELIACEAE should be a little lighter at times. We don't need to be over technical — too much can be a bit of a turn-off. Other newsletters have introduced a bit of relief. I believe you should follow their lead. To get you started and interested I have enclosed something that was published in the "*Bromeliad Newslink*", May/June issue 1999.

A woman accompanies her husband to the doctor's office. After his check-up, the doctor called the wife into his office alone.

He said, "Your husband is suffering from a very severe disease, combined with horrible stress. If you don't do the following, your husband will surely die. Each morning, fix him a healthy breakfast. Be pleasant, and make sure he is in a good mood. For lunch, make him a nutritional meal. For dinner, prepare a especially nice meal for him. Don't burden him with chores, as he probably had a hard day. Don't discuss your problems with him, for it will only make his stress worse. Most importantly . . . make love with your husband several times a week

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and satisfy his every whim. If you can do this for the next ten months to one year, I think your husband will regain his health completely."

On the way home, the husband asked his wife, "What did the doctor say?" "You're going to die," she replied.—**Martin**, Toowong

Nuf Sed! But, Marty, this is a "gardening" society. If anyone's got a good brom or gardening yarn, please drop me a line.—Ed.

Garden Spectacular and Sales

 CONGRATULATIONS to our very hard-working Show Committee on again doing the Society proud at the Royal Horticultural Societies' Garden Spectacular. I think all members owe a lot to these people who devote much time and energy on our behalf as they keep encouraging the growth of bromeliads.

Apart from the committee members, I want to congratulate those tireless women who take the money at the sales table. Never a sour note from them as they perform their sometimes difficult job. But, could I make one small suggestion to them . . .

After purchasing several plants, I was very disappointed on arriving home to see that I could not read the names on some of the labels. The big black crosses (denoting that the plants have been paid for) had completely obliterated the plants' names. Can a different system of marking the labels be considered? — **"Trying To Help"**, Brisbane.

Our President and his team and the volunteer Stewards do a great job. I can appreciate your concern at not knowing the names of your purchases and I'll take this up with the Committee.—Ed.

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Madrid's Royal Botanical Gardens

MY REASON for writing is that in July/August's *Bromeliaceae*, your Ipswich lady correspondent commented on my previous article and asked me a question. As I don't know her name and address, could you please pass on the enclosed letter and information with my best wishes. As my reply to her is not related to bromeliads, it is not for publication. — **Geoff Lawn.**

I tried to find the person Geoff refers to but with no success. If the Ipswich correspondent rings me on 3399 5296 or writes to 11 Malory St, Balmoral, 4171, I will forward Geoff's information to her.—Ed.

Species

HAS ANYONE noticed the "Champion Bromeliad of the Show" at this year's Combined Show was a species? Let's hear it for all the species growers! All too often growers push aside the species as unattractive plants, preferring the hybrids. Judging plants is not an easy task . . . a pretty thing can play havoc with one's sense of judgement. —**A Species Devotee.**

I'm a bit of a fence-sitter on this one. Hybridising, in some ways, is a bit like genetic engineering and we all know the trouble that's stirring up. But the purists will never be able to stamp out hybridising.—Ed.

Broms for Sun and Shade

THERE has been a lot of talk about growing bromeliads in the open garden. I notice in past issues of *Bromeliaceae* you have advised readers to climatise plants before placing them in sunny positions. I am

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interested in landscaping my garden with bromeliads. I have some shaded areas but mostly the area is quite sunny. What plants should I grow in sunny spots and what should I grow in more shaded areas? I know Aechmeas grow well in open areas, but then I've been told there are a few that don't like the sun. Dyckias are possibly OK but I need to be sure. Can you publish a list of plants? I'm sure other members would also appreciate this information.—**Landscaper.**

If there is a list, I'd like to see it, too. Maybe members could write in with their experiences with plants in sun and shade.—Ed.

Broms on Trees

A YEAR AGO I tied several broms, with nylon, to an Alexandra palm. A couple of weeks ago I removed the nylon ties and the broms held firm; they seemed to be fixed to the palm tree. Last week they all fell off, taking all the brom roots with each root. Can you tell me what has happened? Other broms haven't come off other trees in my garden.—**Mistified.**

I think the Alexandra palm's bark may be too smooth for roots to attach themselves. The rougher the bark the better, i.e. bottlebrush, which is probably why plants did not come off other trees.—Ed.

Merry Christmas and New Year Greetings to All

And SINCERE THANKS to ALL CONTRIBUTORS to BROMELIACEAE

From Ray (Nicko) Nicholson, Editor.

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