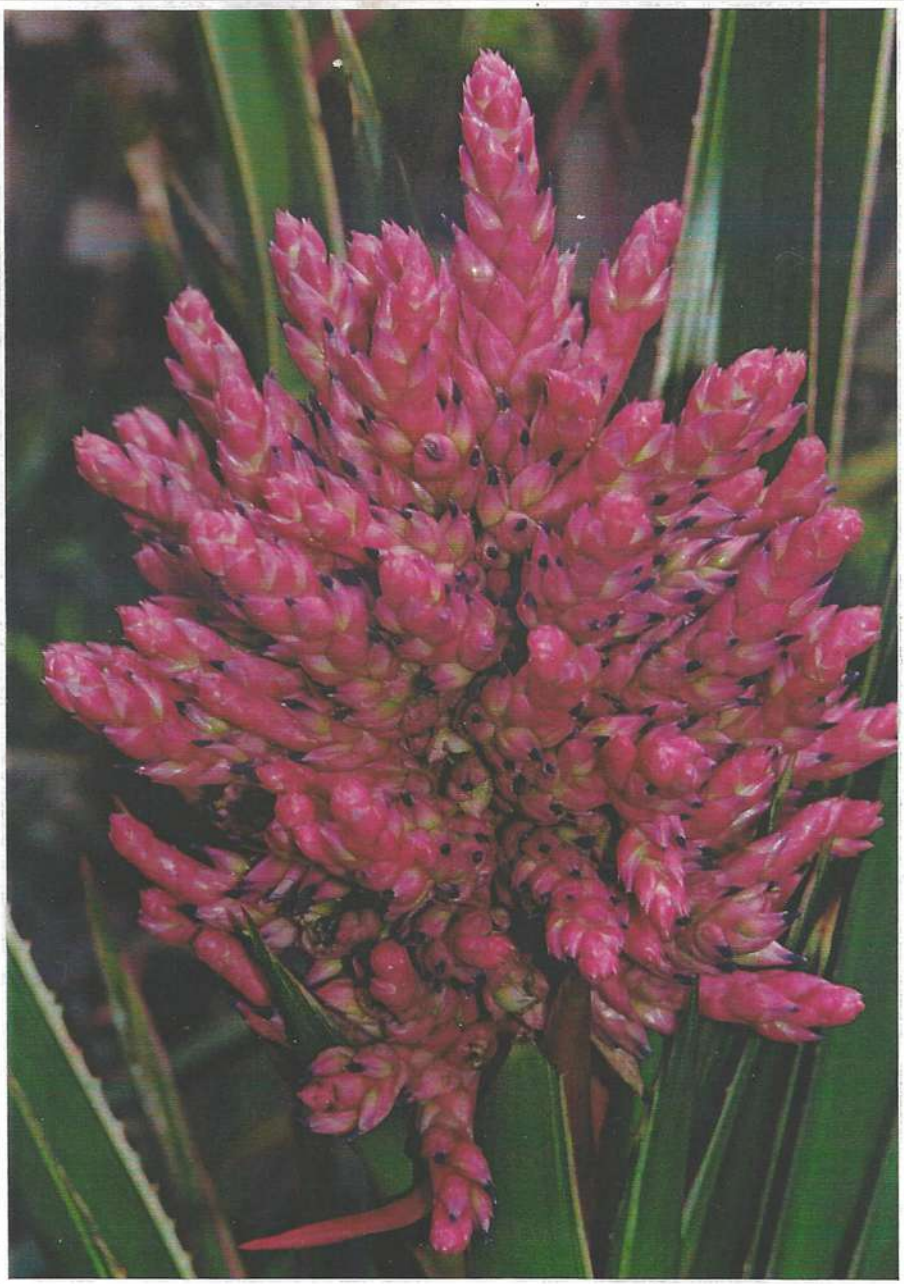
Bromeliaceae



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BROMELIAD SOCIETY OF QUEENSLAND INC.

P.O. BOX 565, FORTITUDE VALLEY
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. Classes for Beginners commence at 7.30 p.m. and the General Meeting at 8 p.m.
FIELD DAYS are held bi-monthly at the gardens of members as advised in this journal.
MEMBERSHIP FEES: Family $20, Single $15—payable on January 1.

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Cover Photographs

FRONT

Aechmea serrata X Ananas comosus

THIS PLANT was imported in 1997 as an off-shoot. It only just survived quarantine. After months of care it began to respond producing strong central leaves. As growth continued its bright green leaves grew lanceolate, 6 cm in width and 60 to 70 cm in length, marginated with white and spined. The lower leaves recurved around the base of the plant.

The inflorescence has to be described as bulky, having numerous congested rose pink racemes with violet blue flowers emerging as each raceme extends. The spectacular inflorescence does not extend beyond the leaves and as it ages the tip of each raceme produces a small rosette of albo marginated leaves. Once established it is not difficult to grow.

Plant grown by LEN & OLIVE TREVOR. *Photographed by* DOUG UPTON.

BACK

Something entirely different!

HERE WE HAVE a photograph of a beautiful specimen — to be precise there are six. Your Management Committee, always on the lookout for something new and different, would like to test your knowledge of the plants we grow.

What is wanted from members and other bromeliad enthusiasts is a short note stating everything we know about the photographed specimen.

Is it a species or a hybrid? What is its name? Any information we may have. Come on now! Let's hear from everyone and look for your replies in the next issue of *Bromeliaceae*.

Management Committee — God bless 'em — has said it can help to get you started with the following statement: "The plant has been around for a long time and it's a Bromeliad."

Photographed by DOUG UPTON.

CONTENTS

Society Officials ..... Page 1
Cover Photographs ..... Page 2
Cultivar Nomenclature, DEREK BURCHER ..... Page 3-6
A Mere Dab of Pollen, DOUG UPTON ..... Page 7-9
How Good Are Your Plants, Part 5: *Crytpanthus*. B.S.I. ..... Page 10-14
Name Changes and Other Topics, DEREK BUTCHER ..... Page 14-15
Society Diary: March Meeting Report ..... Page 16
April Meeting Report ..... Page 16
May 18 Meeting ..... Page 17
June 15 Meeting ..... Page 17
Study Group Meetings ..... Page 17
Management Committee Meetings ..... Page 17
Combined Show Committee Meetings ..... Page 17
Combined Show ..... Page 17
Sunshine Coast Bus Trip ..... Page 18
Successful Field Day ..... Page 18
Exhibition Roster ..... Page 19
Future Field Days ..... Page 19
New Competition Grading Formula ..... Page 20
Editorial ..... Page 20
Editor's Mailbox: Unusual Pest ..... Page 21
Research on Copper ..... Page 22
Science Versus Nature ..... Page 22
Varieties of *Neo. carcharodon* ..... Page 23
Copper Treated Logs ..... Page 24
Advertisers: M. J. Paterson ..... Page 18
Pinegrove Bromeliads ..... Page 19
Raemaur Plant Farm ..... Page 20
Brisbane Bromeliad Centre ..... Page 21
Bromagic Bromeliad Nursery ..... Page 22
Forest Drive Nursery ..... Page 23
The Olive Branch ..... Page 24

PUBLICATION DEADLINES for *Bromeliaceae*

July / August, 2000, Edition ..... June 30, 2000
September / October, 2000, Edition ..... August 30, 2000

Please send all contributions to:

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Cultivar Nomenclature By *DEREK BUTCHER*

AT ONE TIME all plants were covered by the same code which is now known as the ICBN (International Code of Botanical Nomenclature). In 1953 we saw the introduction of the ICNCP (International Code of Nomenclature of Cultivated Plants) and each succeeding review saw it move further and further away from the ICBN rules. The latest in 1995 shows quite radical differences!

In 1998 we saw the issue of a monumental work by Don Beadle namely the *Bromeliad Cultivar Registry* where Don followed the 1995 ICBN rules.

As far as I can trace, the new approach to writing the names of cultivars has not been formally advised to bromeliad growers. From what I have seen in various affiliated societies' newsletters, and information on Web sites, these changes have gone unnoticed even though they have the *Bromeliad Cultivar Registry* at hand.

This is a plea for a standard simple approach so that bromeliad growers, especially newcomers, are not too confused. So, if you follow what Don Beadle has done in the *Bromeliad Cultivar Registry* this is how you should be writing cultivar (and hybrid!) names.

The Genus or Nothogenus (bigeneric combinations) name is written exactly the same as it has been done. The cultivar name is written in single quotes with a capital letter starting each word. Thus: *Neoregelia* 'Charm'.

The use of the multiplication sign is OUT even for Latinised cultivar names. Thus: *Billbergia* 'Windii'.

If anyone is worried about this, please check Article 17.8 of the ICNCP.

The use of grex is also OUT and is replaced by Cultivar Groups which contain similar looking plants irrespective of their parentage. Note that grex will persist in the orchid world and is the only exception in the whole of the Plant Kingdom! So Cultivar Groups must be in our planning for the future. For example there is currently no way to answer a request for a Neoregelia that has a bluish centre and looks like a *Neoregelia concentrica*. But currently if you wanted a white rose that had a scent and only grew one metre high you can easily be told "Try this, or this, or this!"

Choosing cultivars to be named is a very difficult task as advised in the notes supplied with the official Registration form. I would like to

expand on the comments made because it is important how we look at cultivar names. In this Society's early years, most hybrids were F1, that is species crossed species. An F1 generation results in similar looking plants in a grex, *i.e. Billbergia* 'Catherine Wilson', and I have no worries of accepting this as a cultivar name. When we get into F2 generation greges (plural of grex!) that is, hybrid crossed species or even F3 generations (hybrid crossed hybrid) the problem starts. Because there is often much variation, individual plants will need names. Therefore ruthless culling is necessary. I should mention here that it is proposed to call these plants "Culton" in place of the wild "Taxon". Perhaps horticultural taxonomists will now be called "Cultonomists"!

This explosion of variability at F2 level can be controlled by selection which is why the likes of Cornelius Bak can produce thousands of Vriesea hybrids under one cultivar name from seed! The same applies to that packet of flower seed for annuals with the glossy picture on the front! These plants are not clones and neither are they all F1 hybrids but they look very similar indeed.

Cultivar names should be able to stand alone and *Aechmea lueddemanniana* 'Mend' is frowned upon because we should be writing *Aechmea* 'Mend'. This will restrict the usage of variegata etc because for obvious reasons it does not convey much on its own. If you want to use variegata then you will have to follow the ICBN code, learn Latin and write up a description! It is much easier to use an "Anglicised" name such as *Billbergia* 'Kyoto'.

It may be said by some that they want to know if their plant is a hybrid or a variation on a natural species. The more you write on the label the more chance of error and IF you are really serious you can refer to the *Bromeliad Cultivar Registry* for the answer. What you will never know is whether the hybridist used the correct names in the parentage in the first place!

There is just one area in the *Bromeliad Cultivar Registry* that I am uneasy with. It is the inclusion of natural hybrids such as *Tillandsia X rectifolia, Tillandsia X smalliana* etc. I am fully aware that non-horticultural taxonomists are not particularly interested in these but there are many so-called natural species so described which are certainly natural hybrids but no one has acted. Secondly they come under the ICBN rules. Harry Luther has promised to include these natural hybrids in his Binomial Lists some time in the future which will mean they would not be totally ignored.

Finally, what do we do when plants have been found in the wild and botanists have been too slow in giving them a Latinised name? While I

would prefer them to have a collection number and who collected it, it is better that they be given a Cultivar name because they can at least be identified. This is preferable to blatant misidentification with an existing taxon. So we have *Neoregelia* 'Fireball' and *Neoregelia* 'Robert Read' clearly species plants but with Botanists unwilling to name them "properly" because of lack of collection data. On the other hand we have the likes of *Aechmea callichroma* very widespread in cultivation but not found in the wild!

Remember that if the plant is of garden origin the ICNCP rules apply but if wild then the ICBN. Isn't it a pity there is a grey area in between?

If you want to have a record of this latest bromeliad cultivar nomenclature, please note this edition of *Bromeliaceae* in a safe place, keep a copy of the *Bromeliad Cultivar Registry* handy, or if you have a computer, check http://www.selfin.org/bssf.

Blooming Spanish Moss

Lynne Fieber of Florida (USA) was inspecting her Tills last Spring when she discovered her three-year-old *Tillandsia usneoides* "blooming like there's no tomorrow"! She spent so much time photographing the three-petaled green inflorescences under hot artificial lights, they started to smell. "*T. usneoides* has a fragrant bloom," she says.

A Mere Dab Of Pollen

By DOUG UPTON

FROM ITS INCEPTION, the Queensland Bromeliad Society's Study Group set upon a course to incite fellow members to want to participate and further their knowledge of bromeliads. The Study Group was formed six years ago. Meetings are held on the fourth Saturday of each month. Members arrive at 7.00 a.m., each contributing food to the breakfast table, fruit and fruit juices, different breads and pastries; hot food is prepared and *voila!*, a table to suit every taste.

Later, after breakfast, members discuss fundamental growing techniques, potting mixtures, fertilizers, and everything that will bring about solutions to guide and assist bromeliad enthusiasts. Next it's hands-on activities in a growing environment (the shade house) where practical as opposed to theoretical allows each of us to visually observe and identify the differing characteristics of the genera.

All meetings are held at the home of Len and Olive Trevor. Their collection would amount to the tens of thousands — indeed a wonderful area affording the Study Group an unlimited supply of plant material for observation. Also, with hundreds of flowering bromeliads bearing pollen at any given time, the opportunity to cross-pollinate is another course to study and pursue

Confessing to a strong feeling of excitement that perhaps a well directed stroke of a pollen laden implement might produce a superior multi-bracted multi-coloured hybrid, I somewhat blindly followed the experienced Study Group and ventured into hybridizing.

I remember when hybridizing was discussed I sat quietly and nodded my head. This purposeful nodding of the head implied my immediate understanding and intuitive recognition of what was said, and, as long as I kept my mouth shut I believed my ignorance would never be discovered.

Intergeneric breeding, Fl and F2 progeny, genetic barriers, knobby areas on condensing chromosomes and the terminology of botany . . . Heaven help me, what had I got myself into? Anyway, I now realized there had to be more to it than a mere dab of pollen to the female bits, so, for factual information and directives, I sought some books on the subject.

Aptitude in grasping complex meanings along with my faculty of understanding was surely tested. However, I am delighted to inform the reader, well chosen books have given me a profound knowledge of the

sexual reproduction structure of the sometimes insignificant, modest, bromeliad flower. The complete package (if one can refer to it as such) is a bloom composed of mutually dependent parts, constituted to create and yield seeds. I ask some tolerance from horticulturalists who understand the complexities of fertilization. The following inferences and deductions are my interpretations.

It was interestinq to learn that dab of pollen I mentioned previously is not synonymous with fertilization; however, that dab will form a membrane (pollen tube) which grows down from the stigma to reach the ovary with ovules. Once there, this membrane containing pollen nucleus, enters the ovule allowing the pollen nucleus to become united with the egg nucleus, and then, we have lift off. NO! NO!! Sorry, we have FERTILIZATION.

Evolving from the fertilized egg cell comes a method of cell division resolving into chromosome material, and after many progressive changes, the egg cell becomes two, then four, and so on with further additions. To understand the relationships of these cells, one needs to be a botanist or scientist. Personally falling short of these prestigious achievements, I acknowledged my limitations, briefly glancing through the books' chapters on different types of cells and the division process.

At certain stages of cell division the materials of the nucleus change in character, interesting stuff but frightfully technical. Never-the-less, endowed with an enquiring mind I managed to decode one chapter that affirms the brilliance of nature. Hopefully I can translate to a word picture.

Visualize a bromeliad seed on top of a growing medium: it has taken up moisture, expanded and split its seed-coat. Within the embryo, cells that became the radicle (the lower part of the axis) and the plumule (the bud of the ascending axis) are now about to function. The radicle, the primary root, extends to find stability and nutrition. The plumule, the bud of the ascending axis, is tissue that will form the first leaf, and with the radiance of light it will produce chlorophyll. This entity, precisely described as a seedling, will grow and mature.

Full of presumptuous boldness I convinced myself it was time *to knock 'em dead* at the next Study Group meeting. No more of this head nodding sham, I could now respond fluently.

Disaster, total disaster! I knew nothing of self fertile and self sterile plants. True, I knew about the dab of pollen to the stigma lobes, but for the hybridist intent on producing a plant separate and distinct, it is not that simple.

To create a hybrid using a self fertile species as the seed parent (female) there are methods to ensure the hybridist's chosen pollen plant (male) is first to make contact with the seed parent's stigma lobes. One option is to emasculate *(OUCH!!!)* the stamens from the seed parent before selfing has occurred. It is not easy, and of course there are difficulties with other species where the stamens enclose the stigma; and then there are those where both stigma and stamens are located deep within the inflorescence.

Any boldness on my part was now utterly impracticable. Quite simply, I didn't know as much as I thought I did.

Today, some years later, I manage to join in discussions and have tried my hand at cross-pollinating, but I have yet to experience the excitement of producing that multi-bracted multi-coloured hybrid. Others in the group have had some success.

It would be remiss of me not to mention two of their best results. *Neoregelia* 'Mars' X *Neoregelia* 'Gold Fever' done by Mr Bob Cross, December 1996; and *Vriesea* 'Hazel' X *Vriesea* 'Eva' done by Mrs Olive Trevor, February 1997. As yet these hybrids have not been registered. Evaluation of their potential will be assessed after the next generation. High hopes are held for other crosses done by the Group.

Study Group meetings are not all about hybridizing. Members are serious bromeliad collectors seeking ALL aspects of bromeliad culture. They are favourably disposed towards good fellowship; they consult and compare opinions. When asked of things of importance most agree on accurate records and correct labelling. The hybridizers will tell you to select the best cultivars from the grex and cull the rest. Myself, well, I certainly agree with my fellow group members but I hasten to add, as a healthy male with full knowledge of what can be conceived by a mere dab of pollen, I find that word emasculate quite disturbing. Indeed, a very unkind cut, at variance with the course of nature.

Makes You Jealous!

HOW'S THIS FOR A DAY TRIP? The Bromeliad Society of Florida (USA) recently went on a field day to Fakahatchee Strand, about 150 km from Miami. Apart from 37 species of ferns, they counted 13 species of bromeliads growing in the wild, including three species of catopsis. On a single pond apple tree were 175 seedlings of *Tillandsia pruinosa*. In one area, *Guzmania monostachia* grows by the thousands and one in every thousand is the variegated variety. As if that's not enough, there are also 45 species of orchids in the Strand.

How Good Are Your Plants? PART 5

Edited extracts from the BSI's Handbook for Judges

Criteria for judging the genus Cryptanthus

THIS GENUS was named by Klotzch and first published by Frederick Otto and Albert Dietrich in the *German Allgemeine* Gartenzeitung in 1836. The name means "hidden flowers" and serves to emphasize the inconspicuous nature of the flowers.

The earliest record of the introduction of a *Cryptanthus* into horticulture was in 1827 when Mrs. Arnold Harrison of Liverpool, England *introduced Cryptanthus undulatus* (now *sinuosus*). The plant was received in a shipment of orchids from Brazil and was thought to be epiphytic. Four years later in 1831, Mr. Sello brought *Cryptanthus bromelioides* into cultivation.

Indigenous to Brazil, there are approximately 100 known species and varieties of these fascinating, terrestrial plants. Less than half of the species in cultivation have been described. Most are found in the eastern Brazilian states growing in a variety of conditions: sunny, shady, moist, dry, in forests, and at oceanside. Though no *Cryptanthus* has ever been reported growing epiphytically, a few have been described as growing saxicolously in soil pockets among the rocks. *Cryptanthus* are a group of true terrestrials.

"Earth star" was the common name coined by the late Mulford B. Foster for *Cryptanthus* in the late 1940s because their low spreading rosettes hug the earth "like fallen stars".

Cryptanthus usually grow as small to medium sized, low, spreading rosettes with leaves ranging from two to twelve inches in length or longer. The leaves vary in width and in shape and are often lanceolate, spooned, triangular, or grasslike. They may be flat, crenulated, or curved. Color is another variable with a palette ranging from pale green to green-brown, brown to brown-black, gray, various shades of chartreuse, red, greenish gray, silver, and silvery white. Pattern and markings take the forms of zigzags, mottling, stripes, bars, and blotches. A few varieties have developed variegated foliage with the albino stripes turning brilliant pink in bright light. Others such as *C. aucalis* 'Variegata' never turn pink.

Offsets in *Cryptanthus* are produced in five fashions: from the flower head, as basal offsets, from between the leaves, and by means of underground or surface stolons. The stoloniferous offsets may develop from two to 24 inches from the parent plant. In *C. Cascade* (a species)

and a host of other yet undescribed species, these stolons may be cut into sections and rooted in the same fashion as *Orthophytum vagans*.

While the inflorescences of *Cryptanthus* are certainly not as spectacular as those of most vrieseas, their flowers possess a simple, charming beauty. A flattening of the foliage may occur at bloom time to facilitate pollination. While most *Cryptanthus* flowers are white, there are some plants in cultivation that have chartreuse or bicolor flowers, and two forms of *C. bromelioides* exhibit pink or rose flowers.

The quantity of bloom varies greatly according to variety, with most plants producing a total of about 25 flowers, but normally only 1 to 3 are open at one time. Flowers are usually borne flush with the leaves and somewhat hidden, as the name implies. There are a few species, such as *C. scaposus*, that bloom on a scape of 3 to 5 inches.

Some cryptanthus noticeably flatten as they begin blooming; some do not. Old, bloomed out plants should not compete against foliage plants that have not bloomed, because the flattened shape which makes them so appealing and accessible to the pollinators, also attracts the judges' eyes to the patterns and colors so well displayed.

To determine the best entry, remember — "pleasing to the eye". Usually the first characteristics noticed are size and color. A plant should have sufficient size to indicate it has been well grown. The judge must be familiar with various Cryptanthus to make this assessment, and must know what is the normal size for this plant at maturity. *C.* 'Café Au Lait' would be overgrown if it were 10 inches across the rosette, when the normal size is four to five inches. Leaf color should be clear and bright with markings that are uniform, intense, pleasing, and true for the variety. *Cryptanthus* notoriously have unstable variegation, and the judge should score down a plant with albino leaves, or totally concolorous leaves on variegated specimens. Leaf edges on certain plants such as *C. fosterianus* 'Elaine' are often lacking the characteristic bright pink color overlaying the white margins. There should be no sign of bleaching or sunburn from over-exposure to the light, nor should there be dull, uninteresting foliage resulting from a lack of light.

The presence or absence of symmetry is relatively easy to establish in a given specimen. While the rosettes of some Cryptanthus are quite round, the majority are more oval, with many having an elongated diamond shape. Whether a plant has eight leaves that appear to form a perfect five pointed star, or is a multi-leaved specimen that has formed a single mound, the arrangement and distribution of the leaves should be balanced and pleasing to the eye.

Plants that have not been turned regularly, and have been grown under side lighted conditions will produce longer leaves on the side towards the light. Some of the leaves will curve horizontally in an effort to reach the light. The aforementioned conditions produce a distorted, unbalanced appearance that is not pleasing to the eye. Distorted growth resulting from improper lighting should not be confused with undulating foliage, a characteristic that most *Cryptanthus* share. Undulation may be minor and limited only to the point of leaf attachment, or it may cause the appearance of large waves which carry the leaf tip to a twisted roll toward one side.

The judge should be aware of the array of different leaf textures that *Cryptanthus* possess. Some, such as *Cryptanthus bivittatus* 'Pink Starlight' are soft and pliable; others, such as *Cryptanthus warasii* are thick and succulent, like many dyckias. There should be no pithiness or puckering to the leaf surface because of undue growth stress.

Additional flaws that will be obvious to you after closer inspection are a sudden marked difference in the length of the leaves, a narrowing of a portion of one or more of the leaves, and brown leaf edges and tips. All are proof of faulty horticulture. A marked variance in the length of the leaves (two stages of growth) may result from repotting into a rich mix, a sudden heavy shot of fertilizer, or some other drastic change in the plant's environment. A narrowing of a portion of one or more leaves may indicate a period of drought that interrupted the orderly growth process. Cold damage, dehydration, or sunburn results often in browned leaf edges and tips. Overcrowding and careless handling often mar both top and bottom scurf.

The judge should expect to see containers that are a little larger than usual, because we are judging true terrestrials, not epiphytes. The container, however, should never be so large that it detracts from the plant. A shallow container in the form of a saucer, bowl, bulb pan, or bonsai pot, lacking depth enhances the normally flattened form of the genus. *Cryptanthus* mounted as epiphytes by means of glue or otherforms of attachment, with no evident adequate soil pockets should be severely penalized, and the judge should write a brief explanation on the back of the entry tag.

In summary, the blue ribbon plant will be of an optimal size for the variety, display a bright healthy appearance, with characteristic optimal color and markings, will present a balanced effect when viewed radially and laterally, and will be free of the various flaws and defects that indicate poor horticulture.

Characteristics of Cryptanthus

A. Radial Symmetry: 1. Full round (*C. bivittatus);* 2. Open round (*C. 'Osyanus');* 3. Oval (C. *'Fudge Ripple'):* 4. Elongated Diamond (*C. 'Black Mystic').*

B. Size: l. Small (*C. lacerdae);* 2. Medium (*C. zonatus forma zonatus*); 3. Large (C. 'Madame Ganna Walska'); 4. Very large (*C. fosterianus).*

C. Growth Habit: 1. Upright (*C. bromelioides*); 2. Caulescent (*C. glaziovii);* 3. Mounding (*C. acaulis* varieties); 4. Flat (*C. bivittatus*); 5. Rambling (*C. bahianus);* 6. Trailing (*C.* species *Cascade).*

D. Leaf Shape: 1. Strap (*C. incrassatus);* 2. Lance (*C. praetextus);* 3. Triangular (*C. warasii);* 4. Spoon (C. beuckeri).

E. Width of Leaves: 1. Narrow (*C. maritimus);* 2. Medium (C. 'Melody'); 3. Wide (*C. zonatus* forma *fuscus).*

F. Undulation: 1. None (*C. schwackeanus);* 2. Small (*C. pickelii);* 3. Medium (*C. 'Riesenerdstern');* 4. Large (C. 'Hummel's Haze').

G. Foliage Markings: 1. Mottled (*C. 'Lirico');* 2. Stripes (*C. 'Mars');* 3. Distinct Banding (*C. zonatus* forma *viridis);* 4. Diffused Banding (C. 'Wind Song').

H. Type of Inflorescence: 1. On Scape (C. *scaposus* var. *scaposus);* 2. Few Flowered (C. 'Chickadee'); 3. Cluster (*C. incrassatus).*

I. Light Requirements: 1. Very Bright (C. 'It'); 2. Bright (C. 'Black Prince'); 3. Medium (C. 'Lolita'); 4. Low (C. 'Makoyanus').

The discussion below involves the criteria used in the point scoring method of judging and how they relate to judging *Cryptanthus.*

Cultural Perfection: The overall appearance of the plant and its container should be balanced and pleasing. The plant should be well centered and upright. The container should be clean, free of flaws and of an adequate size for a terrestrial plant. The mix must adequately fill the container and be clean, fresh, and neat. If a sphagnum collar is present, it should be carefully trimmed and not appear unkempt. The ideal plant will be healthy and robust. Negative factors include damaged, spotted, stained, or trimmed leaves, or damaged scurf on the upper or lower leaf surface. There should not be sudden marked differences in length, or narrowing of portion of any of the leaves.

Conformation of Plant: Many *Cryptanthus* do not form perfect circles. The leaves should be arranged so that the overall appearance is pleasing when judging both the radial and lateral symmetry. The form is sometimes circular, sometimes oval, with some having an elongated diamond shape. The leaves should not be markedly longer on one side,

or curved from reaching toward the light, nor should there be more leaves on one side of the plant than the other.

Color and Marking of Plant: The ideal plant will be optimally colored with markings and patterns suitable to the variety or cultivar. Faded or bleached colors result from too much light, and dull colors with poor markings indicate insufficient light. Remember, however, that some cryptanthus have subtle shadings and blendings of patterns or markings; others are brightly colored, distinctly marked and patterned. There is little or no foliage color intensification at bloom time.

Inflorescence — Size, Quantity, Quality, Color: Many *Cryptanthus* flatten when they come into bloom and this displays their foliage to better advantage. Some do not. Others flatten when not at anthesise. The flowers while not spectacular and often hidden, should be rewarded if present in appropriate number, and if fresh. Blooming or bloomed out plants should not be judged against plants that have not come into bloom.

Maturity: The plant should be mature with optimal size for the variety, but should not be overgrown and floppy.

Name Changes and Other Topics

By DEREK BUTCHER

***Neo.* 'Golden King'** is a variegated plant similar to a variegated *Neo. carolinae* but with a yellowish tinge. It is not in the Bromeliad Cultivar Registry. An identical plant circulating as *Neo.* 'Kathleen', a registered name, bears no relationship to our plant. If you have 'Kathleen' on the label please change it to 'Golden King'. I will put this in the Registry "parents and hybridist unknown" 'til someone supplies its history.

***Neo.* 'Cockabell'**, accredited to Hummel, is usual for him. Not only don't we know its parentage we don't know for certain what it looks like! The first formal description appeared in the Registry based on information in a Tropiflora Cargo Report and conflicting evidence based on an Aussie connection, Shane Zaghini's *Neo.* Book.

In 1999 P. Franklin sent me a photo of the Aussie 'Cockabell' pointing out it had red berries. The plant was large, suggesting *Neo. cruenta* was in the parentage. As far as I am aware, ripe Neo. berries have always been white, so red is rather startling! I started asking around but no comments were forthcoming.

In 1999, I was taking offsets and a *Neo.* 'Calypso', from K. Golinski,

was next. This had red berries too! What's the chances of two separate hybrids having red berries? Zero, in my opinion. AND was I looking at the Aussie 'Cockabell'? Because of the doubt of Aussie 'Cockabell's' identity, I am shifting my attention to 'Caribbean Sunset' grex which is *Neo. cruenta* 'Sun King' x 'Catherine Wilson'. Cultivars of the grex are 'Caribbean Sunset', 'Calypso', 'Coral Reef', 'Curacao', 'Montego Bay', "Planters Punch', 'Port o' Call', and 'Sandy Cay'. If you have any of these check when flowering has finished to see if berries turn red at maturity.

I would suggest you change the label on your Aussie 'Cockabell' to 'Calypso'. If you have Zaghini's Neo. Book please a note on page 18.

Hummel's *Neoregelia* 'Cockabell' seems to be a *carolinae* type!

***Canistropsis* 'Plum'.** Among photos that Jarka Rehak sent me was a *Canistropsis billbergioides* with dark plum-coloured (42) leaves (both sides) and where the primary bracts are an apricot hue (11). The numbers are those in the colour chart in Isley's Tillandsia book and standardises the colour we are referring to. As a coincidence we are just flowering a like plant we got years ago from Bill Morris as *Nidularium billbergioides v. purpureun*. As the use of Latinised varietal names has been "illegal" since 1977 when Flora Neotropica-Bromelioideae was printed, Lyman Smith was not prepared to acknowledge even the variety *citrinum* so it has been left to growers to give cultivar names. Diana Hughes of Mullumbimby, NSW, did a great job in starting to solve the problem and in *Bromeletter* 5 1997 her ideas were published; *i.e.* the old var. *citrinum* is now *Canistropsis* 'Citron'. There was one example that eluded us and we felt sure it was around in Australia. Two years later it came to light. We have decided to call this cultivar *Canistropsis* 'Plum'. If you have this plant with or without the name v. purpureum, please change the label to *Canistropsis* 'Plum'.

***Neoregelia* 'Sheba'.** There is a plant being sold as *N. carolinae x compacta x macwilliamsii* and seems widespread in Australia. I am changing the name on my plant to *N.* 'Sheba' because of the following: (1) it seems to be a Skotak hybrid'; (2) Reference in Cargo Report 5 - 5 suggests *N. compacta* played a role in this hybrid and not just *N. macwilliamsii* as reported in the Registry; (3) we all know that *N. carolinae* was used extensively by Skotak to get variegation and it would be strange if it did not play a role in this complex hybrid; (4) there is a *N.* 'Ultima' in Australia which has green leaf edges whereas its stable-mate as mentioned in the Registry, 'Sheba' has white edges.

AND 'Ultima' looks very similar to the plant we have *as Neo. carolinae x compacta x macwilliamsii* except for it's reverse markings.

It is easier to write 'Sheba' on the label and I suggest you do so.

Society Diary

NEWS REPORTS EVENTS

Report of March Meeting

THE MAIN TOPICS for discussion for the 41 members present were the final arrangements for the introduction of the society's trial day meetings to commence in April and a proposal by Mike Symmons for changing our competition grading system which was adopted for immediate implementation (full details elsewhere in this issue). Bob Paulsen gave an interesting talk and demonstration on Cryptanthus and displayed 20 plants. Results of the Popular Vote competition were:

NOVICE: Cheryl Basic 1 (*Billbergia* 'Poquito Blanco'); Jay and Carole Jacobs 2 (*Guzmania lingulata* 'Purple').

INTERMEDIATE: Ivan and Dawn Hole 1 (*Billbergia* 'Pink Surprise'); Noel and Elizabeth Weir 2 (*Tillandsia abdita*).

ADVANCED: Bob Cross 1 (*Tillandsia* 'Wildfire'); Mike Symmons 2 (*Neoregelia* 'Aztec Gold') tie with Neville Ryan 2 (*Tillandsia* 'Tamaree').

JUDGES' CHOICE: Noel and Elizabeth Weir (*Tillandsia complanata*).

Report of April Meeting

BECAUSE of the proximity of Easter, numbers were down. The proprietors of the new growing medium "Absorbastone" provided a lively debate on their product and donated a bag of absorbastone for a raffle. Phyllis Hobbs provided the plant commentary and Des Andersen judged the Mini Show which resulted:

ADVANCED, GUZMANIA: Mike Symmons 1 (*lingulata*); Nancy Kickbusch 2 (*intermedia*).

ADVANCED, NIDULARIUM: Mike Symmons 1 (species Brazil); Mike Symmons 2 (*innocentii*).

ADVANCED PITCAIRNIA: Mike Symmons 1 (*atrorubens*); Nancy Kichbusch 2 (*undulata*).

ANY OTHER SPECIES, ADVANCED: Mike Symmons 1 (*Vriesea* unknown hybrid); Noel and Elizabeth Weir 2 (*Quesnelia marmorata*).

ANY OTHER SPECIES, NOVICE: Carole Jacobs 1 (*Neoregelia* 'Burgundy'); Jay Jacobs 2 (*Neoregelia* 'Painted Lady').

May 18 Meeting

COMPETITION for May is Popular Vote (any genus, any species) in Advanced, Intermediate and Novice sections. Comments on the plants will be provided by members of the judges' panel.

June 15 Meeting

JUNE'S competition is Popular Vote (any genus, any species) in Advanced, Intermediate and Novice sections. Comments on the plants will be provided by members of the judges' panel. Noel Weir will lead a discussion on Billbergias which are this month's featured plants for the Show and Tell table.

Study Group Meetings

MAY 27 is the date for the next meeting at Olive and Len Trevor's home, 232 Canvey Road, Ferny Hills, commencing with breakfast at 7.30 a.m. Please note: There is no Study Group in June.

Management Meetings

COMMITTEE will meet at Ray Nicholson's home, 11 Malory St, Balmoral, on May 17; and at the home of Elizabeth and Noel Weir, 20 Alicia St, Toombul, on June 14. Meetings start at 7.30 p.m.

Combined Show Meetings

THE LAST MEETING before the show is at the home of John and Marie D'Alton, 39 Agnes St, Torwood, at 7.30 p.m. on May 23. The *"post mortem"* meeting is at the same address on June 27.

Combined Show

THE BROMELIAD SOCIETY of Queensland is again combining with the Cactus and Succulent Society for the Annual Show in the Mt Coot-tha Botanic Gardens' Auditorium on June 10 (9.30 a.m. to 4.30 p.m.) and Sunday, June 11 (9 a.m. to 4 p.m.). Details and the Competition Schedule were previously mailed to you and are very similar to past Combined Shows.

Sunshine Coast Bus Trip

OUR SOCIETY'S outing to the Sunshine Coast was the highlight of the month. At Warana, Mavis and Bob Paulsen showed us around their garden, which features beautiful Cryptanthus, before providing a scrumptious morning tea.

Following a drive through Warana, Buddina, Minyama and Mooloolaba, we met members of the Sunshine Coast Bromeliad Group and inspected the amazing landscaped gardens at "The Shady Tree", Buderim, where we enjoyed lunch.

We then inspected the colourful gardens of Lindsay Gerchow and Yves Daniel which feature thousands of Neoregelias. Grace Goode officially opened Daniel and Yves' new Balinese entrance to their display shadehouse.

The day was an outstanding success as evidenced by the bus-load of plants bought by members during the trip.

Successful Field Day

PHYLLIS AND DON HOBBS were the hosts of the society's first day meeting (field day) at their Cleveland home on Saturday morning, April 15. About 35 members and visitors attended.

Phyllis gave a talk and demonstration on the correct method of taking pups from their mothers and planting them. Ably helped by husband, Don, Phyllis gave reasons for everything connected with the planting of new pups—pot size, the mix and fertilizers, etc. New members and guests were given answers to a wide variety of questions.

Peter Paroz's talk and demonstration on Tillandsias was much appreciated; as were his detailed answers to many questions.

Ray Nicholson gave a short demonstration showing the effects of fertilizer and potting mix on plant growth.

Two representatives from Pot Works Australia, 248 New Cleveland Rd, Tingalpa, displayed a variety of their company's products.

Exhibition Roster

VACANCIES exist on the Stewards' Roster for the society's display at the Ekka, August 10-19. If you are attending the Ekka, phone Joy Upton (3378 3511) to arrange a suitable time for your chance to share the workload (and get a free pass to the Ekka!). Bob Cross is arranging the display and all members are invited to help him on August 9 and to submit plants for display. Phone Bob on 3265 4364.

Future Field Days

PROGRAMME for the remainder of the year: JUNE 24, Mike Symmons's home, 183 Eggersdorf Rd, Ormeau; AUGUST 26, Bob Cross's home, 23 Queenstown Ave, Boondall; OCTOBER 28, Len and Olive Trevor's home, 232 Canvey Rd, Upper Kedron. All at 9.30 a.m.

Contrary to some members' remarks, these field days are not only for members who cannot attend the normal night meetings. They are additional society activities where all members are invited to bring their families, friends, new growers, prospective new members and all who are interested in growing bromeliads. No business is discussed at these field days, the emphasis being solely on all aspects of bromeliads.

Brochures will be distributed at the Combined Show, at the next meeting, and at the Exhibition, detailing these field days.

New Competition Grading Formula

THE SOCIETY sincerely thanks Mike Symmons, Joint Competition Steward, for the work he has put into this new grading formula. Mike's proposal was submitted to the March meeting where it was discussed at length and passed for immediate implementation.

To advance from NOVICE to INTERMEDIATE:

A Member will have:

1. Exhibited in at least 6 Mini Shows and
2. Exhibited in at least 10 Popular Votes and
3. Won a prize in the Combined Show or in the Annual Points Score for Mini Show or Popular Vote.

To advance from INTERMEDIATE to ADVANCED GROWER

A Member will have, at Intermediate Level:

1. Exhibited in at least 8 Mini Shows and
2. Exhibited in at least 12 Popular Votes and
3. Won 3 prizes in Combined Show or won a prize in the Annual Points score for Mini Show or Popular Vote.

Note: The advancement from Novice to Intermediate or Advanced can also be at the Request of the Member.

Editorial

MY APOLOGIES for the lateness of this issue of *Bromeliaceae.* Doctors' and Surgeons' advice must be taken seriously and they often do not give much advance warning. My sincere thanks to all members and friends who conveyed their best wishes to me during the last few worrying months.

Unusual Pest

WE ALL have at least one usual pest and we usually keep the gate closed to keep him out. No, not that one! We talk of flyspeck scale, a bit of rot, the occasional eating insect. Generally, unlike the USA where one of the several weevils that eat the brom plants has got established, we have little to worry about. I grow in soil but to keep up with the Jones, I grew some in bark. Who says white ants don't eat bark? The bark and roots were eaten away by these creatures. I have since found other collections have had this problem. I got rid of them in an interesting way. I put newspaper on the ground, covered it with Ant Kill, put more paper down, covered it with plastic, then put my pots on this with whatever mulch I chose for decorative purposes.

Another pest, my wonderful puppy that can do no wrong, decided to test me out. If I gave him food he didn't like he wouldn't eat it. He'd test out a few soft Vrieseas as protest. I put gutter guard around them, which scraped parts of his anatomy he didn't like having scraped. He outgrew this barrier and started feeding again. Then the brainwave: Epson Salts is a fertilizer containing magnesium and sulphate and has a horrible taste. Sprayed the plants with appropriately diluted Epson Salts and bingo, it worked! Made one fatal error the first night. Did not lock him outdoors. It worked well after that. — *R. SMYTHE, M.SC.*

Research on Copper

I WISH TO REPLY to Rob Smythe's request proving copper is more poisonous to broms than to other plants. I have no scientific training and I have not (knowingly) had copper close to plants other than broms. But . . .

Some time ago, six of my best Neos, planted side by side in a straight line, developed unexplained ugly brown blotches on their leaves and no matter what I tried, they all died. I now reckon I know why: I had "stored" six new CCA fence palings on the roof of the shadehouse, right above those six Neos. which received water from the palings. As all the other Neos adjacent to the dead ones were thriving, I reckon I've (unscientifically) proved copper is a "no-no" at least to broms. — NO COPPER.

This letter may answer, in part, Rob Smythe's letter about copper treated logs in this issue.—Ed.

Science Versus Nature

PROPAGATION of my bromeliad seeds is often 95% successful when sterile pots, sterile seed raising mix and sterile plastic bags, are all placed in a thermostatically controlled, bottom heated growing cabinet which is placed so as to have suitably filtered sunlight for six to eight a day.

A portion of the 5% failure in the above procedures is usually the Tillandsia seeds. This bothered me, but as Tillandsias are not of high interest to me, I was a little slack in not harvesting their seeds. In due course, Tillandsia seeds blew in the breeze on to cobwebs, shade cloth

walls of the shadehouse and dropped on to other bromeliads, ferns, etc, where they promptly commenced growing and are doing just fine.

Man's science and technology erred while Mother Nature prevailed. Goes to show that there is some hope for the future environment after all—if Mother Nature is left to her own devices.—*PERRY CRAWFORD.*

To my mind, Perry, a 95% success rate is pretty good but perhaps members of our Study Group could come to your aid. Of more concern to me about the future of the environment is all the chemicals gardeners use.—Ed.

Varieties of *Neoregelia carcharodon*

CAN THE SOCIETY'S EXPERTS please solve my problem about this species of Neo? Several years ago I bought a *N. carcharodon* from a well-respected grower. That large plant had distinct broad red and green "lines" running the length of all leaves. I successfully grew this plant and had several pups which all grew identically to their mother. Recently I visited another well-respected grower and queried the name on a greyish-green plant with faint cross-banding which they called *carcharodon.* I was assured it was one of the many forms of this species. I consulted Baensch's *"Blooming Bromeliads"* which shows *carcharodon* as entirely reddish-orange with no banding of any type. Baensch says "This large species varies in shape and colour. Some are green, others are reddish-bronze . . ." There is no mention of coloured lines or banding. Both my "varieties" have long broad leaves and are very spiny but the greyish-green plant is more upright than the other. To further add to my puzzlement, I have seen plants very similar to my original plant, labelled as "*chacharodon*, Skotack hybrid"! Could our

experienced growers explain how I can be sure my two plants are really *carcharodons*? How many other varieties are there? — *PUZZLED.*

You did ask the "experts" for help, so I'll have to pass this one over to the more experienced growers for their comments. —Ed.

Copper Treated Logs

MANY YEARS AGO when these were new, I was at a scientific meeting with the Swedish chemists pioneering their application. As well as fencing they were being used in children's playgrounds. I asked the question as to what heavy metal and acute poisoning danger were these to children as they were treated with copper chrome arsenate. The answer was that this chemical is extremely insoluble and after weathering (I think they said a year) they were perfectly safe.

I built my bush-house in 1989 using all copper logs. There were a couple of unusual deaths early but they did not correspond to drip spots. My phalaenopsis have actually spread their roots on to sections of the wall. I have seen vandas growing up such a pole.

Probably the answer is don't panic, take care especially in early days and avoid fertilizers countering chelating agents like EDTA which could solubalize these toxins. Remove plants from drip areas. Orchids do not have root contact as they have a layer of velamen, which is dead spongy cells, which insulates the true root from the timber. Broms don't have this advantage. Has anyone grown broms on treated poles? — *ROB SMYTHE, M.SC.*

For a part-answer to Rob's last question, see the letter "Research on Copper" in this edition. — Ed.

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