S.A. BROMELIAD GAZETTE

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Hec argentea Len Harrison UK

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THE BROMELIAD SOCIETY OF SOUTH AUSTRALIA INC

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Meetings Venue:
Maltese Cultural Centre,
6 Jeanes Street,
Beverley
Time: 2.00pm.
Second Sunday of each month (unless advised otherwise)

President:	Mr. Len. Colgan, 1 Ailsa Avenue, Warradale, 5046	82969426	
Secretary:	Mr. Derek. R. Butcher 25 Crace Road, Fulham, 5024	83567728	
Pots:	Available Feb., March, Sept., and Oct., meetings	83514876	Ron Masters for order or pick-up.

2008 Meeting dates:
Nov. 9th - Plant swaps & auction

Coming Events - 2008
November 8th - Sales Day

Dates for 2009
Jan11th (miniature Neoregelias), Feb 8th –AGM and Broms native to Minas Gerais, Brazil), Mar 8th, March Show 28 & 29, Apr - no meeting – Bromadelaide 2009 conference 10th – 13th April, May 3rd (1st Sunday), June 14th, July 12th, Aug 2nd (1st Sunday), Sept 13th, Oct 11th, Nov Sales day 7th, Nov meeting 8th.

Applications for membership always welcome.
Subscriptions $10.00 per year Feb. to Feb.

Several reference photos courtesy of “fcbs.org”

September meeting from the Secretary's desk

In your waning years I suppose it is the time to expect some sort of recognition for services rendered even if it is a gold watch. In my case, I reported my appointment as Honorary Trustee of the Bromeliad Society International. This time I have to report another award only this time as the First Friend of the Council. Let me explain. It must be 10 years now when I joined forces with Mike Andreas to make the Florida Council of Bromeliad Societies Web site a truly Bromeliad Encyclopaedia. In fact there are some 150 pithy articles by Uncle Derek all about wrong bromeliad identification around the globe! I have never been a member of any of these American Societies but they must have felt I needed some recognition. So when I was advised by Karen Andreas of the news it gave me a warm and fuzzy feeling. Apparently our own Len Colgan was involved in secret men's business prior to the award!

Talking of Len Colgan he had his apologies in for the meeting because he was in Germany for their Bromeliad Conference. I suppose we are lucky in that Renate Ehlers is very good at spotting a different Tillandsia in the wilds of Mexico. You see, Len was a bit stranded because of train delays and missed connections and happened to bump into Renate. You see, Renate had thought Len would probably get lost and had gone out to find him! All's well that ends well!

AND so to the Main talk by Derek and Bill on 'Species'
Both of us were a bit dumbfounded as to the number of 'species' plants brought in (Must have been 50!) We had both thought we would be flat out selling the idea of species before hybrids and had a bit of the wind taken out of our sails. All who brought in plants are to be congratulated
When talking about plants found in the wild we speak of them as say *Aechmea nudicaulis* where the *Aechmea* is the genus and the *nudicaulis* is the species.
The basic unit is called a species. Where a taxonomist is trying to name a plant he first tries to decide what genus it belongs to. What happens then is that the species name will probably remain the same but gets moved to a new genus as others think fit
The Brom Soc International Glossary says "a species is a group of organisms that have in common, one or more characteristics which definitely separate it from any other group". The trouble here is that this can also define a hybrid! I thought that the ICBN (International Code of Botanical Nomenclature) would have a definition but they stay clear of such a controversial subject. Another definition is a group of organisms capable of interbreeding and producing fertile offspring. This applies to animals but is close to what could apply to plants if we note that primary (F1) hybrids are less fertile than a species even though they show hybrid vigour.
A new species is generally described from several specimens that share similar attributes and grow in a similar habitat. If a new species is only described from one specimen the chances of it being a natural hybrid increase. Different species can grow side by side in the same habitat because there are barriers to prevent cross-pollination. These include different pollinators, different flowering times of the day as well as seasons. Change the ecology of the area by chopping down trees etc and some of the barriers can be broken. Natural hybridising can now occur if species A grows near species B and they flower at the same time. They produce a vigorous hybrid C that is less fecund and the chances are that it will be pollinated by either species A or species B rather than with any other hybrid C. The chance of the hybrid C evolving into a species in its own right are remote unless its vigour wins the day and species A & B die out

Because everyone's definition of what is a species and the fact that evolution never stops you have plants described as species but are really hybrids like *T. rectifolia* which started off as a species but is now known also under the name(s) 'Jack Staub' or even the formula (*ionantha x schiedeana*)

September meeting minutes cont:
While it may be hard to make a hybrid in the wild it is so easy for humans to do, especially with neoregelias and these days any one who grows from seed must be on the look out for hybrids because usually the seed is coming from a plant, which is already a hybrid.
With every book you read on Conservation of the natural environment you realise it is a losing battle purely because human population is growing so fast with fixed resources. On the animal front there is great emotional outcries when say Koalas outnumber the trees they live on. Should they be allowed to die quietly and horribly by starvation or should they be culled. On the plant front there is much less emotion on their survival.
If you get a chance have a look at the site called IUCN (International Union for Conservation of Nature). IT IS HUGE and depressing where most have a downward trend. The main thrust is animals but there are details about plants. If we look at Bromeliaceae there are over 150 names there already and many more seem scheduled to be that way. I am hoping to publicise these so that they may acquire a higher purchase price, which will in turn make it worthwhile for people to grow from seed, offsets or meristem.
When you delve further you realise that Brazil, Bolivia, Mexico, to name a few you realise endangered Bromeliads in these countries are not on the list!
So the list is growing. If you are keen to know what these plants are, log on to your computer, go to http://fcbs.org and look for CONSERVATION in the index. Note the plants you grow and propagate them!

I have always been a 'species' man having never hybridised in my life. I am a realist in that I cannot expect the countries where Bromeliads do grow, to be solely responsible for providing forest reserves for the plants survival. We can encourage others to grow species plants rather than haphazard hybridising. I know that Bill Treloar is becoming more a fundamentalist but the hardest thing these days is to find a species plant amongst the thousands of hybrids. We are lucky in that we have no hybridist in Adelaide but go to Queensland where hybrids abound and the cry seems to be that hybrids are always better than species.
Gone are the days when we could travel to the countries of origin and bring back plants from the wild. The best we can do is encourage the collection of seeds from the wild. Nature is very wasteful with seeds where only say 1% or 1in a thousand or higher actually survive to flower. If we had such a success rate with our own seed raising we would soon give up in frustration.
If we do try to grow from seed there is an onus on us to see we are growing species and not a hybrid because Bromeliads are very promiscuous!
In the Gazette you will read about the book I have just read called "The Naming of Names" I found it fascinating in how it took some 2000 years to start getting some semblance of order with common names being given to plants and how many different names were given to the same plant. We still have problems!
Is there an Irish person present? Who knows about a 'Shamrock? What sort of plant is it? In 1892 Len Colgan's great great great great uncle (I think!) Nathaniel Colgan lived in Dublin and tried to establish its true identity. Patriotic Irishmen from twenty different countries around the world inundated him with plants. Some were white clover, some red clover, some sent lesser yellow trefoil, some spotted medick. But none sent him a plant sometimes called in England 'Shamrock' for a wood sorrel!
Now you know why I persevere with Latin names!
Bill pointed out that when his wages doubled because of decimal currency he was into fuchsias and wanted species but alas they were very hard to find. His interest in Bromeliads has also slanted towards species. His first was *Aechmea recurvata*
And so to the plants on display that Bill and Margaret had so kindly sorted to rough alpha order within subfamilies!


Aechmea pectinata

We must mention *Aechmea pectinata* because this can be grown in Bute AND there were some offsets on the raffle table. Its green mace-like inflorescence is not particularly impressive but if you can give it space and time you can expect a dramatic leaf colour change to red at flowering.

September meeting minutes cont:

Aechmea fosteriana was there to remind us this plant is on the endangered list

Aechmea fosteriana

What might also be a surprise to many is that *A. calyculata* is also endangered. This species has been happily growing here for the last 30 years and tends to be relegated as being 'old hat'. It crops up in old collections showing how resilient it is and is a favourite of Bill's because it rewards with a colourful yellow head of flowers virtually every Spring.

A. calyculata

Another blast from the past was *Aechmea* 'Tessie'which was on a label. I am oft accusing Rob MacGregor of growing his plants under his lemon tree because some come the meeting absolutely huge having been under an excess of shade. This time I did not even recognize its origins because here we had a plant that needs to be grown in good light to stop it just spreading around! And here it was showing a tight bottle shape. 40 years ago seed came from the USA called *A. tessmannii* which is a great plant they grow north of Sydney but is a great challenge here in Adelaide. To those who don't know about *A. tessmannii* it is like *A. chantinii* which we can't grow either!! Anyway, it was referred to Lyman Smith because things did not look right. A hybrid was suggested and 'Tessie' came into being. Twenty years later, this plant flowered in Adelaide and I doubted its hybridity and Harry Luther said it just had to be *Aechmea phanerophlebia*! Regrettably this name is a lot harder to write a label for!

Bill had brought in a small pot of *Pseudananas sagenarius* and nobody present acknowledged that they too had a plant by that name. You see, if it is planted in the ground it reproduces by sending out underground runners about 2m long. In fact this is the only thing that differentiates it from the common or garden Pineapple, arguments still rage as to whether it is really an *Ananas* or not!

A few billbergias were there with some in flower.

Bill was justly proud of his *Brocchinia reducta* which has survived the Bute winter but will it survive the summer? Bill says he will keep in water so it thinks it in the marshland of the Tepuis of Venezuela – its homeland. It seems it is a passive carnivore – sort of catches insects (not spiders) that pass by.

Several species neoregelias were there to see. There is a favourite name that has been given to small Neo species found in the wild without too much worry as to identity. The name is 'tristis' which means sad or dull coloured. To think that the true species has been in Australia since the 1960's. Plants getting to the USA from Brazil after that date were variously identified as *tristis* or forms of *tristis* and then exported to Australia to really confuse us lot. When Margaret and I went to the USA in 1982 we were full of enthusiasm that we would learn lots of new things. What we did learn was that we Aussies knew more about Bromeliad species than the Americans did but our problem was that we did not have easy access to the plants that were flooding into the USA from Mexico and Brazil. Anyway, a plant that we had acquired by the unofficial name of *Neo. tristis* var. *maculata* was only recently given a proper name by Elton Leme of Neo. *guttata*. Wow! A species

Cryptanthus in the form of *C. bahianus*.

Canistrum were represented with a reminder that *C. fosterianum* is on the Critical list

Edmundoa lindenii looked smart in its flash pot. We even allowed in its variegated form because although not incorporated in the talk looked impressive!

We saw a struggling *Mezobromelia capituligera*. I say struggling because in their native land in Colombia and places it grows on BIG trees because it can be 1m in diam and 2m tall when flowering. Perhaps Sam Wade will bring it in when it does flower.

Sam has been buying on Ebay and you can get choice plants there but you must also be aware that many plants are sold there by persons not into Bromeliad identification. I too am after *Hechtia argentea* but am still searching. We enclose a photo of what it should look like. I have also given him some homework on the intricacies of the genus *Racinaea.*

September meeting minutes cont:
We saw a couple of fosterellas which need similar growing conditions to *Cryptanthus* and I have a feeling they may well become more popular because there are no hybrids and they self set seed readily

Sam had been prepared for the meeting scheduled as plants rarely seem in Adelaide because he also brought in *Werauhia* and *Androlepis*, which were struggling.

One of these days we will get a member who is prepared to have a glasshouse (or plastic!) heated for the winter chills and air-conditioned for the summer heat, with rainwater or de-salinated water. Then we would see something different but to my mind we have sufficient variation in bromeliads that will stick it out under our normal conditions!
We even had representatives from *Pitcairnia* which is part of the Pitcairnioideae sub family of the Bromeliaceae. This sub-family has been split into 6 but more about this in months to come.
Finally to the Tillandsioideae with the three vrieseas represented all on the critical list. It is hard to imagine that *Vr. fosteriana* and *Vr. hieroglyphica* could ever be in danger because so much is grown in private collections around the world. What is happening is that both are favourites with hybridists who think they can improve on nature. Let us hope that sometimes, seed from species is actually sown.. Tillandsias were a bit sparse because Len wasn't there but there were sufficient to talk about. George Rudolf even brought his flowering *T. friesii*. All present, confirmed the petals had a reddish hue because last time our President was somewhat doubtful!


Vr. fosteriana


Vr. hieroglyphica

Carlien Potter should be justly proud in having several flower spikes on her *T. lindenii/cyanea* because it is not an annual event. It would appear that nobody reads the garden notes in the Messenger because the writer had noted Bunnings were selling these in bud and asked for my comments. I recommended that buyers should enjoy the flower while they could because it would be a very very very long time before any offsets did the deed under Adelaide conditions.
T. neglecta was in flower. Taxonomically it had a chequered past being considered by Lyman Smith to be just another *T. tenuifolia. T. neglecta* is critical, coming from a small island off Rio De Janeiro which is in the middle of the Brazilian Navy's Shelling range. At least we can't blame extractivism by the natives!
Those with bifocal glasses could see the black flowers on *T. cotagaitensis* and all of the womenfolk said it had a scent .
Finally I must report on the *T. bradeana* because my research has found out its old name which Bill is growing his plant under. He uses either *T. abdita* or at a pinch *T. brachycaulos* because all are so close together no taxonomist is prepared to give us plebs a key as to the differences.

Spreading the Gospel overseas

On Monday Sept 22nd, Margaret and I braved the wet blustery weather to cross Backstairs Passage to get to Kangaroo Island. After some navigation problems we found the holiday units where we was staying and tried to no avail to find the plant nursery which we were told were close by. It did give us a chance to get to know the layout of Kingscote and stock up on local produce. Tuesday was the BIG day when we would preach to the locals about Bromeliads. We were told to be at the nursery we could not find, by 11.30am and we would be directed to some mysterious farm for secret talks. Luckily Ann, the Secretary called on us to show us where the nursery was. The follow-my-leader for about 10 minutes brought us to a farm with a very substantial garden in front of it, so we knew we had arrived. We met many of the locals who had a bit of an advantage over us because they knew our names but we were at a loss as to theirs. Our advantage was that we knew our plants' names! While this was going on the table was getting fuller and fuller with edibles.

Spreading the Gospel overseas cont:
It did not seem that long before we were all allowed to tuck in. 1.30 we were allowed to start speaking and by this time we had some 50 smiling faces- two were males!
First they learnt about how Bromeliads fit into the plant world and a bit about Linnaeus to explain about the Latin plant names.
Then it was a bit of practical where Margaret was allowed to perform. Many intelligent questions were asked. They were intelligent because we thought we knew the answers! We then came to the problem part because we had brought a few offsets over with us to sell and cover some of our costs of our holiday. Everyone was eager to buy and their President came up with a King Solomon solution. Why not auction the plants? The bidding was most ladylike and most plants went for under $8. What went over the reserve price went into their club's kitty and they made $90 on the deal. So most of us were happy. By this time we had been going for 2½ hours with none falling asleep. Afternoon tea was then served where the only difference between it and Lunch was the cream.
In all a great day and we hope KI will have a selection of Bromeliads to grow on and swap offsets in the future. They were certainly keen gardeners.
We stayed on for an extra day and a half doing tourist things and the weather made it very enjoyable

October meeting from the Secretary's desk
El Presidente was back from his exploits in Germany, which you read about in the Sept report. He attended the German Conference where surprisingly enough the proceedings were in German meaning that Len had to rely on the pretty pictures he saw. When it was Len's turn to give his talk it was in English with an interpreter trying to decipher Len's arm movements that we all know so well. Everybody clapped at the end so it must have been appreciated.


Tfriesii Rudolph

I had to tell you this because George Rudolph was on a leave pass but had left me with a photo of a flowering Tillandsia friesii. You may recall that Len maintains you can't flower *T. friesii* in Adelaide unless you are ready for a long long wait. George knew that Len would doubt his word and had sent a photograph duly vouched by 2 JP's. This photo is shown here so those readers outside Adelaide know what occurs here, There were a few plants on display which Len talked about.


Quesnelia quesneliana

Neoregelia 'Jewellery Shop'

First there was a BIG pot of *Quesnelia quesneliana* in flower. *Aechmea weilbachii* didn't know quite what to do with its flowering. *Neoregelia* 'Jewellery Shop' was in fine condition with everyone taking an interest. This is a Margaret Paterson hybrid and probably her best one. Something I cannot understand with hybridists is that when they get a good hybrid they must use it in another hybridising program. Yes, Margaret has done this and all progeny are nowhere near the class of 'Jewellery Shop'!

October meeting minutes cont:
Sporting or in other words - offsets that behave badly. The more hybrids that are being made these days the more interbreeding occurs and the more sporting occurs. If your plant fails to produce what you consider a good offset, think about turning it into compost. The best offset is generally the first one to be produced. All others progressively get worse.

If you want a garden full of the same looking plant then grow on all offsets but I suggest you get a better feeling with different plants and you should not be afraid of culling the unwanteds!
There were several tillandsias to talk about but there is one I would like to expand on. This was the plant that Len had called *Tillandsia polita* which had come from Honduras. As Len pointed out this name has had a chequered career. It was described by Lyman Smith in 1941 for a plant found in Guatemala. In 1981 Sue Gardner made the following comment "Near San Cristobal de Las Casas, in the highlands of Chiapas, *T. rotundata* apparently hybridizes with *T. rodrigueziana.* Specimens, intermediate between these species occur, and morphological diversity among the putative hybrids suggests backcrosses and/or sibling crosses. Some of these intermediates were found to agree well with *Standley* 62465. The distributions of both putative parent species extend into Guatemala and other specimens examined suggest they hybridize there also.
Pollen infertility (0 to18%)and the results of statistical analysis of morphological characteristics among the assumed hybrids and their putative parents support the notion of a hybrid origin for this species.
So for a while this was treated as a natural hybrid. Seed obtained by Rolly Reilly in Qld was grown on and produced progeny that looked similar so we doubted that it was a natural hybrid – at least at F1 level. Needless to say, I kept Harry Luther informed of our findings.
In 1998 Renate Ehlers collected a plant in Chiapas, Mexico which she described as *T. polita* var. *elongata*. How could you have a variety of a hybrid? This is what she had to say
"Sue Gardner writes in her dissertation that she of the opinion that T. *polita* is a hybrid and suspects its parents as *T. rotundata* L. B. Smith and *T. rodrigueziana* Mez
Already in the 1980's Klaus and I did not share this opinion. The plant is widely dispersed over many km. It grows in association with *T. carlsoniae, T., vicentina var. wuelfinghoffii* Rauh,, *T.* aff. *dasyliriifolia,* isolated from *T. rodigueziana* Mez, however much we looked for it.
T. rotundata could never be found in this area. Our observations were that it is not at home in some damp forest-area but loves somewhat drier and lighter locations. We observed it largely occurring between Comitan and Las Margaritas as well as between Comitan and the Lagunas Montebello and in the area near Bochil. At all these places it grew with *T. belloensis* Weber , *T. rodrigueziana* Mez and *T. dasyliriifolia.* Hybrids between *T. rodrigueziana and T. rotundata* (L. B. Smith) Gardner could occur in this small area.
A pollen examination of *T. polita* by Dr. Walter Till in Vienna yielded a fertility rate from approximately 90 % and Dr. Till, after the examination, was of the opinion that it came from a species not a hybrid.
We got already in 1986 from Mr. Rudolf Wulfinghoff, Pforzheim, a photo of a plant, which he found in the area between Comitan and St. Cristobal.. It showed a plant, that was similar to *T. polita,* but had an inflorescence narrower and much longer. Normally, *T. polita* has an almost spherical or egg shaped inflorescence. On our next trip to this area we were on the look out for this plant of Mr. Wulfinghoff's, but unfortunately we had no luck.
In the year 1998, on my trip with Jurgen Lautner, I came into the area again. And this time we arrived at a place where I found many examples of *T. polita* with long, cylindrical inflorescences. Unfortunately no fresh flowers existed because all the plants had already flowered.
December 2001 was the last trip to the area. Again, I had opportunity to explore this location for anything choice. All I saw brought tears to my eyes. This splendid forest had turned into what! Previously Klaus and I had called it "Our Wonderland" A gigantic area of primary forest, with many bromeliads, orchids and epiphytic cactus, where it seemed nature was in unison with itself. Already in 1989 we could see what was happening to our "Wonderland" but never thought it would go this far.
Back to our trip in December 2001. I had luck this time because there were many plants in flower and I had time to study the better quality plants and to photograph. I determined, that the *Tillandsia* with the long narrow inflorescence spreads over a rather large area and also in large quantities, none of which resembled or nearly resembled the type species. The inflorescence is much longer and narrower, not almost spherical like *T. polita,* and it is composed of many more spikes. Therefore, it is justified to look at this plant as a variety. "

October meeting minutes cont:
To my mind these apparent differences of findings can easily be explained. Things are constantly changing and species have evolved mostly from hybrids. There is just no cut off period to say when a natural hybrid stops and a species starts!

The meeting was a bit different in that we were lucky to have 36 attendees. You see, we had planned for a more intimate – almost hands-on demonstrations – that we had called 4 corners. The mathematicians amongst you will now realise why we were lucky with the attendance figure. There was no time to get bored because each minitalk took only 10 minutes but you had to hear the same thing 4 times if you did not move or were a slow learner.

Maureen Hick had out her scissors as she showed others what wonders a snip here and a snip there can do to improve the looks of a plant. However, if you are serious about entering plants into competitions you also have to prepare the plant several months before the event. This includes planting in the centre of the pot, turning your plant around at regular intervals so its growth is more even, AND giving it enough space to do so. Take care with what sort of pot you use because the eyes of the judge should be on the plant and the pot!
Bill Treloar was able to show others what goes for a soil mix in Bute. Bromeliads will grow in any mix and success depends a lot on the gardener's habits as the mix used. It just depends on what is available but care should be taken for some sort of consistency in the porosity of your mix. Everybody can have their own mix but do not be too quick to assume that someone else's mix is better than yours. Experiment first. Unless you want to know the watering requirements of every single pot you have, remember to use your own mix when you buy a plant already potted. The devil you know is better than the devil you don't know!
Margaret Butcher had a great time with the Secretary the other side of the hall and was able to show her technique in removing offsets for a wide range of plants for potting. Regrettably it is not a case of one-system covers all with even different techniques within the same genus. With *Vriesea* and most *Nidularium* you try to gently twist off the offset or use a blunt knife for leverage. The prime object is to remove an offset so that it will root and establish itself as a new plant in the shortest possible time. You don't try to remove offsets in the winter. You don't try to remove an offset that is less that ½ the size of mother. You don't let the offset get too big because it will be misshapen for many months ahead. You **do** make certain that the offset has a woody base from which to root. If you have roots nubs present, all the better. With *Vriesea* it is even better if actual roots are present

Derek Butcher had his beloved Tillandsias to pull to pieces so they can be multiplied. In the wild, tillandsias do grow on trees but these are live trees. So, however you grow Tillandsias you will be growing them artificially. There is nothing more artificial than growing a Tillandsia in a pot! To his mind a good shaped piece of wood or rock adds contrast to the plant or does one compliment the other? In any event it should be larger than the plant. We are lucky in South Australia in that you can sometimes acquire knobbly Mallee root that will last for at least a hundred years so they can be used over and over. You will never see a Tillandsia for sale mounted on such a prize piece of wood. You will see them on all sorts of timber. If you are lazy, you leave them like that but if you seek artistic challenges you remount them.
Tillandsias in the wild only grow attached by their own roots, which are always on the surface of the substrate. Tillandsias in captivity rarely get that chance and in any case only set out roots to steady themselves. There are many ways you can attach a Tillandsia to a piece of wood but the more you see of a man-made material the less artistic it seems to be. Therefore Derek recommended the use of drilled holes where the offset with liberal use of Selley's Sealant (non silicone) on the bottom portion was then inserted in such hole and left overnight to part solidify! Little can be seen of Man's effort in such attachment.
Here we are looking at the plant attached one dimentional. How about a plant in the wild growing on a thin branch or twig where the plant can form a sphere. Here you can wire up those green plastic meshes you can buy, into tubes of varying widths. Offsets can be inserted from the outside quickly forming a sphere with very little green mesh visible. This is an ideal way to grow *Tillandsia usneoides*.