

# ***Far North Coast Bromeliad***



## ***Study Group N.S.W.***



Edition: December 2020

Agenda: General Discussion



Venue: PineGrove Bromeliad Nursery  
114 Pine Street Wardell 2477



Phone (02) 6683 4188



Study Group meets the third Thursday of each month

Next meeting 21st January 2021 at 11 a.m.

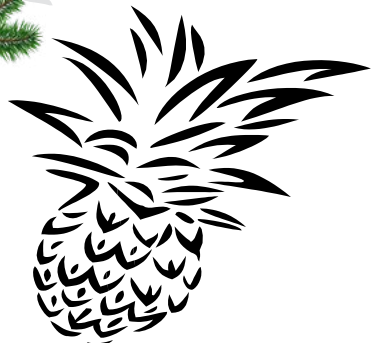
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## Meeting 15th October 2020

The meeting was opened at approximately 11.00 am  
The 12 members present were welcomed.  
Three apologies were received.

### General Business

Covid 19 border restrictions are still affecting members of our Group, who reside in Queensland. Some have been unable to attend our meetings, however with restrictions due to be lifted we hope to see them at our Christmas get together.

In the mail box was one Newsletter which has been added to the Library. Don't forget you can access Newsletters of other Groups/Societies on the web site of The Bromeliad Society of Australia, look in 'Club News'.

Helen has been delving into history again and has also found a quiz, see article on Lyman B. Smith, pgs: 12, 13 and 14, the quiz is on p.15 (cheat sheet p.16)

### Show, Tell and Ask!

**Shade Cloth:** Keryn mentioned that she has put some shade cloth over sections of her garden in readiness to help protect her plants from the harshness of our summer sun. She has already realised how the added shade protection affects the colours of some plants, for example her *Alcantarea vinicolor* has turned green. This can also be attributed to the warmer weather and the plants being in their growing period burning up their sugars instead of storing them giving the plant the red colouration we see in the cooler winter months. However the red colouration could be anthocyanins - pigments which serve as a UV screen and are produced in response to exposure of the plant to UV radiation, protecting the plant's DNA from damage by sunlight. (UV causes the paired strands of genetic material in the DNA double helix to become cross-linked, preventing cell division and other vital cellular processes like protein production). *Anthocyanins* are coloured water-soluble vacuolar pigments belonging to the phenolic group, they can be red, purple, blue or black.

An often asked question is "what percentage shade cloth should I use?", this depends on surrounding factors such as trees and near by buildings that may affect the day light hours your plants will receive. Do these structures create shade in the morning or late afternoon leaving plants exposed to the midday sun which is the harshest. If the later is the case perhaps consider 70 to 80% shade cloth BUT if this is too much in winter indicated by loss of colour and form perhaps consider 50% and add a 'topper' in summer. A 'topper' being an added layer of shade cloth in summer for extra protection and removed in autumn for

extra light. The shade cloth percentage given is often the amount of ultra violet radiation that the shade cloth prevents from transmitting through it not the amount of shade given. The shade cloth forms a barrier which absorbs and/or reflects the UV radiation blocking it and creating a lower UV zone beneath the shade cloth.

Now for the balancing act of selecting a shade cloth and still attaining a desired form and colouration to your plants. A dark coloured cloth e.g. black may give a darker shadow or higher shade factor than a white of same percentage, the white cloth is allowing more visible light through which will enhance leaf colour. This enhanced leaf colour is the anthocyanins acting like a sun screen to the plant reflecting the suns UV rays. Therefore a lighter coloured shade cloth may be the better cloth to use in areas of lesser useful day light hours e.g. near to tree cover, between buildings or hills that are casting a shadow.

The joy of growing Bromeliads is understanding your plants light requirements or sometimes your preference because the amount of light given to a plant can and will affect its colour and form.

**Hail Damage:** Kayelene raised the issue of recent hail damage to her plants and how it has left them looking unsightly. Yes it does - but it will grow out in young plants and your older plants will still give pups. Before cutting or trimming the damaged leaves remember your plants food supply moves along the leaf, the damage caused by hail is lineal splits, therefore the food chain is not completely broken. Cracks or damage across the leaf breaks the food chain moving up and down the leaf, therefore wont help support new recovering growth, this type of damage can be trimmed. When trimming leaves try to do this to mimic the original leaf shape rather than cut it square across.

To protect plants from imminent hail damage a small collection could be moved under cover, garden plants can be covered with an old bed sheet, cardboard or newspaper. Temporary cover can be created using either temporary posts or the surrounding trees to tie rope around to support shade cloth or hail netting above the plants. Don't forget when the hail storm passes to clear the hail that may be built up in the shade cloth, hail netting, bed sheet coverings or in the centre of your Bromeliads.

### **What is hail netting?**

Hail netting is made of polyethylene monofilament, which is UV stabilized and durable. Hail netting is much lighter in weight than shade cloth and has a much more open weave. It's not as suitable for shade or UV protection as shade cloth because it only gives a low level of shade, the most important thing is, it's light, easy to install and will prevent hail from damaging your plants.

**Rats:** Apart from hail, rats seem to be a menace again eating through the white fleshy base of plants and eating seed from the centre of Neoregelias leaving that tell tale sign of chewed up seed pods lying about. Baits seem to be a preferred method of dealing with this pest, however do consider the by-kill when using baits. The by-kill is an animal accidentally killed that naturally preys on these mammals (rats) for food e.g. owls, snakes etc. and they ingest the poison killing them also - an unintended kill. If using baits look for one with a low risk of secondary poisoning to pets and wildlife. Bait stations are good at keeping your pets away from baits but not other native wildlife such as our native bush rats.

To tell the difference between a black rat (introduced pest) and a native bush rat, look at the tail. The black rat's tail is twice as long as its body and is nearly naked, almost segmented like a very skinny earthworm. The bush rat's tail is shorter than its body and quite furry.

Gas fired rodent traps are more expensive BUT they don't use poisons and they eliminate the risk of unintended poison killings.

Don't kill snakes, they help control rat populations not humans in Australia! Less rats = less snakes because they'll go looking for food elsewhere.

**Alcantarea Pups:** Our discussion moved on to Alcantarea hair/grass pups when and how best to remove them. Generally they can be removed when about 50 mm tall, slide your knife blade downward behind the pup to find its base and gently pry it out. This is a relatively easy job, however if in doubt remove some potting mix from around the pup to help see its base clearly. Once all pups are removed from the plant, give it a tidy up and add some fresh slow release fertilizer to its potting mix and hopefully you should get some more adventitious hair/grass pups. The freshly cut pups can be place individually in small pots or you can put multiples into a community pot, use a good quality free draining potting mix, water often in warm weather, foliar fertilise regularly and label them.

**Quilling:** Another issue that arose this month was misshaped plants having leaves tightly stuck together. This could be due to the drier than normal year we've had and the very mild winter we experienced (if we had one). Several plants were brought out to give us a practical demonstration of just how to deal with this problem. One method is to soak the affected plant in a bucket of lukewarm water occasionally checking to see if the leaves are beginning to loosen up by gently easing your finger into the centre of the plant hopefully prying the leaves apart. Another method is to add some liquid soap to lukewarm water and pour into the centre of the plant, allow to soak for a while then gently attempt to pry the leaves apart. Jerry Raack wrote a very informative article on the subject which we are reprinting on the following page and adding a photo for you.

## Quilling by Jerry Raack

What's that, your bromeliad is growing up looking like a soda straw? It is probably the victim of what is commonly known as "quilling".

Quilling is the cementing of the leaves together causing the plant to be very tubular in shape. It generally is caused by lack of good moisture while the plant is in an active growing period.

I have found through my years of growing that certain genera are more susceptible to quilling than others. These genera are Vriesea and Guzmania, rarely do Aechmeas quill.

Besides dry conditions, some plants, both species and hybrids, are more susceptible because the leaves secrete a very sugary, sticky substance which, if not washed off regularly and thoroughly, causes the leaves to cement together.

To prevent quilling then, one must maintain high humidity, or, quite regularly flush the plant with water to thoroughly wash it off. There is no better way to do this than in a long, hard summer rain, but that is not possible in the winter in the northern states. Therefore taking a plant to the shower with you may sound silly, but an equivalent bathing procedure is very beneficial. Bathing a bromeliad? Maybe it sounds crazy but it works not only to prevent quilling, but cures it. If you have a plant which has already quilled, take a mild liquid detergent or soap and put several drops into the tight center and fill with water to overflowing. Let this mixture remain for a half hour, then add more water to overflowing. This procedure should produce lots of suds. The soapy water will dissolve the hardened glue substance, and then with the gentle use of a flat but blunt object, such as a plant marker, the leaves may be loosened from the outer-most to the inner-most. Make sure after loosening the leaves that all traces of soap are flushed off the leaves with lots of water. This procedure leaves the plant clean and free to continue to grow by absorption of nutrients through, not only the roots, but the leaves as well.

If you have quilling problems, or encounter them in the future, try my prevention and cure. It works!





**Mounting Tillandsias:** Gary has been experimenting with various materials for mounting his Tillandsias on. Firstly he explained the issues he had using cork which is a good natural material, the plants readily attach to it except it attracted a wood grub which was eating everything. He tried using banksia cones and pieces of melaleuca branches with good success until the dreaded wood grub arrived again. Various treatments he tried were unsuccessful so Gary turned to composites, sawdust mixed with recycled plastics forming 'timber' decking boards e.g: Ekodeck and Ekologix. These materials are easy to cut and drill for mounting Tillandsias on.



So far Gary has been very pleased with the results he has achieved, no wood grub, no rotting or deterioration of the material, its longevity appears good. Best of all the plants are happily attaching themselves to these materials as can be seen in the photo below of healthy root growth.



Gary is using cable ties as additional support to help hold the plants in place until the glue dries. He feeds his orchids Campbells Yellow regularly which means the Tillandsias also get it which is reflected in the healthy looking plants.

A helpful tip from Greg J.

The grub many of us have had issues with on Tillandsia mounts and in bark potting mixes is possibly Sod Webworm or a related species that can be treated with a pyrethroid insecticide he's had success with called Bifenthrin.



## ***Aechmea* 'Roberto Menescal'**

grown and photographed by Ross Little



An absolutely stunning variegated tissue cultured sport of the dark form of *Aechmea chantinii*, unfortunately it's not completely stable and often gives non variegated offsets which were registered on the Bromeliad Cultivar Registry (BCR) as *Aechmea* 'Black Zombie'. The plant in flower here had no variegation as a pup only gaining a single stripe or two on a few leaves on one side of the plant only as it aged making it a poorly variegated Ae. 'Roberto Menescal'. It was grown to maturity giving it very bright light under white shade cloth and positioning it for what variegation it did have to get the sunlight. This action paid off with a pup with exceptionally good variegation again! Never give up on a Bromeliad.

## ***Aechmea zebrina***

grown and photographed by Ross Little

I first acquired this plant from a grower down on the Central Coast of NSW way back in the later part of the 1990s. It had always been a slow grower for me taking about 10 yrs to flower that original acquisition which needed more winter care than many of our other Bromeliads. It eventually gave a couple of pups that have settled quite happily into their present locations 600 kms further north in Wardell because they flower regularly for me now.

This is a plant with striking markings that we were lucky enough to see in its natural habitat growing as an epiphyte high in the trees in Ecuador in 2015.





## ***Aechmea manzanaresiana***

grown and photographed by Ross Little



Another stand-out Ecuadorian species that we were lucky enough to see on our travels through Ecuador in 2015.

It was named to honour: Jose Manuel Manzanares of Quito, Ecuador an enthusiastic collector and photographer of Ecuadorian Bromeliads.

I find this one grows well in large pots and being an epiphyte, a very good, fast draining potting mix is preferred.

It's grown in bright light to attain its best colour, this one is under 30% shade cloth from midday onward with no overhead obstructions. It pups well and they flower every year for me.

## ***Aechmea servitensis* var. *exigua***

grown and photographed by Ross Little

Observation by Jose Manzaneres in 2002: "This variety *exigua* is distinguished from the typical one in its cylindrical (vs triangular) inflorescence, red primary and peduncular bracts 1.5 cm wide (versus 5 cm long and pink) and the undersides (abaxially) of the leaves reddish (vs green). It is found only above 1000 m elevation in the province of Sucumbios. It is easily confused with *Ae. penduliflora*, from which it differs in the smaller floral bracts and sepals and the leaves ascending with the undersides reddish and partially covered with white trichomes".

Another beauty in our collection that pups and flowers regularly for us here in the Northern Rivers of NSW.



## ***Dyckia estevesii***

grown by Helen Clewett, photographed by Ross Little



This unusual form of *Dyckia* with its distichous (fan like) growth habit has struggled in our growing conditions due to too much moisture (humidity). Since nearly losing a couple to rot and realising it preferred to be grown in a xerophytic (dry) location in dappled light it has responded well. It requires a very free draining potting mix, it does like regular watering, just not wet feet, so the mix must be allowed to dry out completely between waterings. It was named in honour of: Eddi Esteves Pereira

## ***Tillandsia rodrigueziana***

Sent in by Drew Maywald during our covid-19 break.

At our February meeting I brought in a *Tillandsia rodrigueziana* which had eight pups on it, so that Ross could demonstrate how to remove them successfully for our new members (FNCBSG Newsletter March 2020). At the meeting we removed 3 pups and when I got home I removed the other five and potted them up with the intention of taking along two or three for the raffle table at the next meeting, once Covid-19 is behind us that is still my intention.



I repotted the old mother and put her back in the garden to see if she would produce more pups. Well, as you can see from my photograph she has! This amazing plant has produced another 10 pups!

If anyone wants a *Tillandsia rodrigueziana* give me a call.

Mitch brought along a few very interesting plants for **Show, Tell and Ask!**, one being his ***Brocchinia reducta*** Baker, Journal of Botany, London 20: 331. 1882.

Its natural habitat is swampy savannas at 900-2200 m altitude, it is one of a few Bromeliads considered to be carnivorous. It is native to southern Venezuela, Brazil, Colombia, and Guyana, it is found in nutrient-poor soil.

The following information was gleaned from Wikipedia:

*Brocchinia reducta* adapts to different environments, when growing on rocks it uses its roots as anchors. *Brocchinia reducta*, like many other bromeliads, forms a water-storing cup with its tightly-overlapping leaves. The leaves surrounding the cup of *B. reducta* are

coated with loose, waxy scales. These scales are highly reflective of ultraviolet light. Since many insects are attracted to ultraviolet (it is also reflected by many flowers), this is an efficient lure. The water in the cup also emits a sweet odour, which may serve to attract ants and other insects.

*Brocchinia reducta* absorbs its nutrients from the outer cell wall, which is covered in trichomes that can transport molecules as small as 6.6 nm. The loose scales provide a poor foothold for landing insects, causing them to slip into the water-filled cup and eventually drown.

It has been argued that *Brocchinia reducta* is not actually carnivorous because the production of digestive enzymes could not be found. However, in 2005 it was shown that the plant produces at least phosphatase enzymes in its glandular structures and is thus considered a true carnivorous plant. The enzymes and bacteria digest the trapped insects and thus release the nutrients for absorption by the leaves.



*Brocchinia reducta*  
grown by Mitch Jones  
photo by Ross Little



Mitch's second gem for the day was his variegated *Alcantarea* 'Sydney'.

It grows to around 2 mts wide and up to 3 mts tall when in flower/spike.

Found as a vegetative chimera in Mark Paul's, the breeders garden, in Sydney, NSW Australia.

Reported to be unstable but still worth growing and hoping for more variegated pups in the future.

Lastly Mitch had a couple of *Catopsis subulata* to show us, this is a dioecious species meaning the male and female flowers are on different plants. It grows as an epiphyte in forests at 1050-1600 m alt, southern Mexico to Honduras.

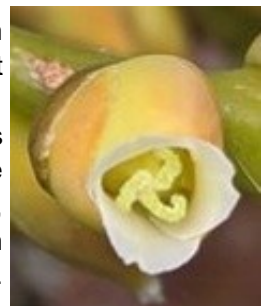


Male Female



Flower from Mitch's male plant on the left in main photo. It appears there are only male parts, the anthers, which are the pollen-bearing organ of the flower.

Flower taken from the plant on the right in the main photo. This flower appears to bear only the female part, the stigma which receives the pollen.



Alcantarea and Catopsis photos by Ross Little

Individual flower photos by Mitch Jones.



## The Work of Lyman B. Smith

by Mulford B. Foster

There is rarely a day in this writer's work with bromeliads that some reference is not made to at least one of the two hundred or more papers, contributions, notes, or books that Lyman B. Smith has written on the family Bromeliaceae.

When Dr. Smith started his graduate work at Harvard in 1926 and selected bromeliads as the major subject for his botanical study, neither he nor anyone else had the remotest idea that this decision would grow into such a vast and eminent work and that the study of bromeliads would become a life-time interest. After his first two years of graduate work, Smith received a Sheldon Travelling Fellowship which took him, in 1929, to eastern Brazil. Here for the first time, he had the opportunity to observe and collect bromeliads in their native state.



After one more year of graduate study, he finished his first work, a monograph on one subgenus of *Tillandsia*, and an account of the bromeliads of British Guiana. This later became the thesis for his doctorate degree; he has published prolifically ever since.

From 1931 until 1947 Dr. Smith was a member of the staff at the Gray Herbarium of Harvard University at Cambridge, Massachusetts. Prior to 1935, he made three trips to Europe where he did considerable work at the British Museum and Kew Gardens in England, at the botanical museums of Brussels and Liege in Belgium, and in Paris, France. While abroad, he examined the older herbarium collections and photographed the original types of many of the first bromeliads collected. In 1947 he joined the staff of the Botanical Department of the Smithsonian Institution in Washington, D. C., where he is now Curator of Phanerogams of the U.S. National Museum in that institution.

Dr. Smith made a trip to Tucuman, Argentina (See *Bromeliad Society Bulletin*, 11:54) and two additional trips to Brazil. In 1952 he spent three months in southern Brazil studying bromeliad malaria in Santa Catarina with Padre Raulino Reitz. He later made trips with Dr. Segadas Vianna and the Museu Nacional staff to Cabo Frio, in the state of Rio de Janeiro and to Serra do Cipo near Belo Horizonte, Minas Gerais, where he found the new *Dyckia heloisae* (*Bromeliads of Brazil*, p.26) and *Vriesea segadas-viannae* (*Bromeliads of Brazil*, p.35). He stopped in Sao Salvador, Bahia, in northern Brazil on his return trip and made a re-collection of M. B. Foster's *Hohenbergia littoralis*.

In 1956-57 Dr. Smith returned to Brazil where he spent six months in additional botanical study. This included one week in the neighborhood of Anapolis, Goias, (near Brasilia) with Dr. Amaro Macedo for whom he named his new Bromeliad *macedoi* (see *Bromeliad Society Bulletin*, VIII:12). Most of this expedition was

spent exploring with P. Reitz the planalto of Santa Catarina. Several new *Dyckia* species were found.

Dr. Smith, however, does not confine his work entirely to bromeliads; he is also, a recognized authority on the *Begonia* family and has published a number of papers on those plants as well as on other plant families. For many years, he has identified thousands of botanical specimens, other than those in Bromeliaceae, that have been sent to the Gray Herbarium and the Smithsonian Institution.

Too many taxonomic botanists in the past have confined their work almost exclusively to the study of dried herbarium specimens; too few have had actual experience with the living material or with ecological conditions under which they grow. But Lyman Smith is interested in living as well as "preserved plants." His actual work in the habitat areas, as well as his endless delving into the past, has resulted in a combination of interests that has urged him into doing a thorough research job on the Bromeliad family, and his resulting work is crystallizing the greatest and most complete treatise ever attempted on the Bromeliaceae. His tireless industry and his enthusiasm surpass all of the former authorities in this family; he has dedicated his life to the study of bromeliads, and a more devout and sincere student this family has never known. He has personally examined and photographed more of the original early collections than has any other person and he certainly has handled more of the recently collected material than any other botanist.

No matter how much the layman might try to belittle the importance of the "old dried material" deposited in the herbaria throughout the world - without this material and its accompanying data, there would be little on which to base any authoritative botanical work of today. The plant lover, the collector, the horticulturist, and the botanist may each have his own individual interest in the plant world, but the taxonomic botanist builds and correlates the basic information for the records that are the foundation of our present knowledge of the vegetable world. Many plant collectors in the past, as well as those of the present, have had a great enthusiasm and appreciation for certain plants, but unfortunately have had little actual knowledge as to their basic position in the world of plants.

Of the past prominent contributors to the knowledge of the Bromeliaceae, some have done both collecting in the field as well as determining the taxonomic classifications. Carl Mez of Germany did most of his work with herbarium material. Both Edouard André and A. Glaziou, Frenchmen, were indefatigable collectors, but Glaziou in Brazil did not do the taxonomic work that André did on his return to France after his extensive collecting trips in Colombia and Ecuador. Baker of England wrote a monograph on the family in 1889. In his time he described many bromeliads; and although he handled much living material in Kew Gardens

he was not a collector in the wilds. His monograph on Bromeliaceae is one of the few attempts to cover the entire family; and though his work is important, it will never have the standing of the work of Carl Mez or Lyman Smith.

Beer in 1856 compiled one of the first complete monographs on Bromeliaceae. It was a sincere and earnest attempt, but there was so little material to work on at that time that today it might seem to some people as though it has little value. But the question arises — Where would we be today if it were not for those first steps? Soon after Dr. Smith definitely placed his hand to the wheel, Dr. Mez in 1934-35 made an outstanding contribution to the field when he published his monograph on the Bromeliaceae in *Das Pflanzenreich* in which he recognized fifty different genera in the family. This was the first major treatise of the family and will continue to be an important one for many years.

Gradually, year after year, the works of Lyman Smith have been steadily issuing from his tireless efforts at research with the old and the new. He now recognizes 45 genera in place of the 50 genera of Mez.

He discarded *Aregelia* which is now included in *Neoregelia*. (Mez did not accept this change). *Bakerantha*, a genus Dr. Smith created in 1934 (it was recognized by Mez), Smith himself has since discarded and that genus is now thrown into *Hechtia*. Smith has also discarded the genera *Chevaliera*, *Disteganthus*, and *Wittmackia*, and all three are now included in the genus *Aechmea*. He has reinstated *Connellia* which Mez had discarded. Both *Cryptanthopsis* and *Sincoraea* are now included in *Orthophytum*. *Prionophyllum* is now discarded and is included in *Dyckia*.

All species of *Sodirola* are now placed in the genus *Guzmania*; the former genus, *Thecophyllum*, is discarded and is now included in *Vriesea*, although the two original species of *Thecophyllum* are now in *Guzmania*.

Dr. Smith created the new genus *Fosterella* and discarded *Lindmania*. Dr. Mez had discarded *Wittrockia* as a genus and included the species in the genus *Candistrum*, but Dr. Smith later restored the genus *Wittrockia* which he feels is valid.

These changes were made only after much research and examination of both old and new material. So, today, we have Dr. Smith's latest list of 45 genera which are now recognized internationally.

As busy as he always is, Lyman Smith can always find time to do one more article for the Bromeliad Society Bulletin, to look up one more identification, or to search endlessly to answer one more question. He has been indeed accommodating to the Bromeliad Society, for, after all, his scientific work is a full-time job. The climax to his extensive and dedicated work is now in preparation — a treatise that we all urgently need a complete monograph on bromeliads which only Lyman B. Smith can produce.

Reprinted from: BSI Journal, 1961, Vol.11, No.4

## Christmas General Knowledge Questions

1. What day of the year is Christmas Day in 2020?
2. Which animal carried Mary before she gave birth to Jesus?
3. Which world leader celebrates his birthday on Christmas Day?
4. When do the 12 Days of Christmas start?
5. Which country annually sends a Christmas tree to be erected in London's Trafalgar Square?
6. Which monarch delivered the first Royal Christmas Day Message?
7. Which country is credited with starting the Christmas tree tradition?
8. What happened in the 1914 Christmas Day truce during the First World War?
9. In which year was the first Christmas card sent?
10. What indispensable item for the Christmas table did Tom Smith, a confectioner, invent?
11. Which ocean can Christmas Island be found in?
12. In what type of building was the baby Jesus born in?
13. What is your star sign if you are born on Christmas Day?
14. What time is the Queen's speech traditionally broadcast?
15. What gifts did The Three Wise Men give Jesus on his birthday?
16. Who was crowned King of England on Christmas Day in 1066?
17. Which country traditionally plays the Boxing Day Test Match every year?
18. Which plant based Christmas tradition was started by servants in Victorian Britain?
19. Which plant has bright red and green leaves and is sometimes known as the Christmas Flower?
20. How many ghosts appear in A Christmas Carol?

Answers next page >>>>>>

### **Where to Find Bromeliad Groups & Societies Meeting Dates**

**[www.bromeliad.org.au](http://www.bromeliad.org.au)** then click "Diary".

Check this site for regular updates of times, dates and addresses of meetings and shows in your area and around the country.



## Christmas General Knowledge Questions Answers

1. 360th day.
2. Donkey.
3. Justin Trudeau.
4. Christmas Day.
5. Norway.
6. King George V.
7. Germany.
8. A game of football between British and German soldiers.
9. 1843.
10. The Christmas cracker.
11. Indian Ocean.
12. A stable.
13. Capricorn.
14. 3pm.
15. Gold, Frankincense and Myrrh.
16. William the Conqueror (William I).
17. Australia.
18. Kissing under mistletoe.
19. Poinsettia.
20. Four.



### **Web Links for Checking Correct Identification and Spelling**

Bromeliad Cultivar Register (BCR): <http://registry.bsi.org/>

Refer to this site for correct identification and spelling of your hybrid or cultivar.

New Bromeliad Taxon List: <http://bromeliad.nl/taxonlist>

Refer to this site for latest species name changes and correct spelling.

Bromeliads in Australia (BinA): <http://bromeliad.org.au/>

Refer to this site for its Photo Index, Club Newsletters, Detective Derek Articles.

Keep these web sites set as desktop icons for quick reference access.