

Far North Coast Bromeliad Study Group N.S.W.

Edition: March 2021

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 15th April 2021 at 11 a.m.

Editorial Team:

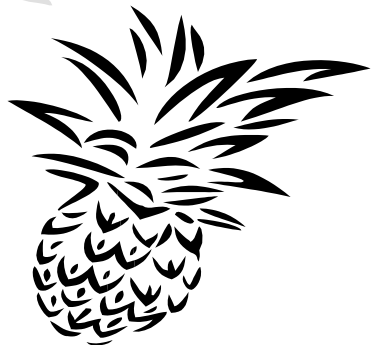
Ross Little

Helen Clewett

Drew Maywald

pinegrovebromeliads@bigpond.com

Life Members: Gary McAteer
Coral McAteer



Statements and opinions expressed in articles are those of the authors and are not necessarily endorsed by the Group.
Articles appearing in this News Letter may be used in other Publications provided that the source is credited.

Meeting 18th February 2021

The meeting was opened at approximately 11.00 am
The 14 members present were welcomed.
Two apologies were received.

General Business

This month brought us another new member to our Group and hopefully Pam enjoyed her day with us. We first met Pam at our local Car Boot Market in Lismore, buying Bromeliads of course, so we encouraged her to attend a meeting where she found quite a few mutual friends she has known for many years.

We reviewed the Newsletter which, more often than not, contains articles in response to discussion topics from the previous month. Written answers are better for long term records rather than one's memory. Having knowledge of the difference between Tillandsia and Vriesea we were now asked to discuss the difference between the Nidulariums brought in for identification and Neoregelias which we will discuss in **Show and Tell**.

Hopefully we have solved a couple of naming issues, one being the naming mystery for Wendy of her *Billbergia* 'AfterGlow'. The other for Keryn which we still aren't 100% sure of parentage, such is the dilemma of opportunistic seed raising efforts. The seed raiser knows or should know who mum is but doesn't know who dad, the pollen parent, is. This opened up a discussion of a recent issue noticed by some growers of seed being sold on the internet by its hybrid name or under parentage.

If buying hybrid seed e.g. off a variegated plant like *Vriesea* 'Highway Beauty' you can't expect the resultant seedlings to look like mum. This seed shouldn't be tagged as such either, better as seed taken from *Vr.* 'Highway Beauty' or even better tagged as *Vr.* 'Highway Beauty' x ????. If you find a significantly different outstanding seedling in the grex you can give it a different name and register it but remember your resultant seedlings aren't *Vr.* 'Highway Beauty' and should not be named as such.

Growing seed from species plants is another issue, in part from Bill Morris: "This is a complex subject and the hybridist will need to know the practical problems associated with obtaining seed at a species level BEFORE being sure of success at obtaining true hybrids.

Species of most plants can be divided into those that are self fertile and those that are self sterile. Obviously there are no problems in obtaining seed from a

plant if it is self fertile. Unfortunately, only some 1 to 5% of Bromeliad species are self fertile. Hence the great majority of species (over 95%) need more than one clone to provide seed of that species. So, if a species has been introduced into horticulture via a single plant (clone) then it may not be possible to obtain seed from that plant and thus the conservation of that species is put in doubt."

Bill points out the importance of requiring a second clone for many species plants to obtain true to type seed. The significant point here is, do you know your plant - is it self fertile? - if so the seed collected could well be true to type but a good seed grower will always query the results. If your plant is not self fertile and has seed it has most likely received foreign pollen therefore is hybrid seed and should be treated as such. If you feel it is worthy of a name, name and register it, if not bin the lot and perhaps try again.

Clone: An individual plant raised from a single seed and all the subsequent vegetative propagations. A **clone** is an organism that's genetically identical to another organism. In biology a **clone** is a group of individual cells or organisms descended from one progenitor. This means... plants that are able to propagate by asexual means produce genetically identical plants that are **clones**.

Some general rules to help you decide if your hybridising (seed growing) has been successful:

- 1) True species x same True species = same True species
- 1a) True variety x same True variety = same True variety
- 2) True species x Self (own pollen) = same True species
- 3) True species x another True species = F1 hybrid
with consistent characteristics in each of the seedlings.
- 4) True species x Hybrid = F2 hybrid
with inconsistent characteristics
- 5) Hybrid x Hybrid = F3 hybrid
with inconsistent characteristic
- 6) Hybrid x Self (own pollen) = F2 hybrid
with inconsistent characteristics
- 7) Hybrid x same Hybrid = F2 hybrid
with inconsistent characteristics

This table is a guide to help readers understand what the 'F' can mean when reading articles relating to hybrids. However different hybridizers have varying opinions as to the relationship of the 'F' regarding the creation of a new hybrid using two unrelated hybrids as parents. A complicated subject !!!!

If you do raise seedlings in bulk from the one seed pod, the characteristics of the batch will lead you to what type the parents were. However just to add another variable, some hybrids have been under cultivation so long that they act like species. Many of the old *Vriesea* hybrids are like this.

Seed obtained from 5, 6 and 7 in the previous table can produce some remarkable plants but a large percentage of them are weak and therefore not worth growing.

When writing plant names there are some fairly basic rules to follow so that at a glance in a written article one knows if the plant being referred to is a species or a hybrid, the rules to follow are:

- 1) genus begins with a capital letter and in italics e.g. *Neoregelia*.
 - 2) species name is in lower case and in italics e.g. *carolinae*.
 - 3) genus name for a hybrid as for (1) above.
 - 4) hybrid name, first letter capital, name in quotation marks, e.g. 'Whirlwind'
 - 5) natural hybrids, yes there are a few of these given latinized names, with the specific epithet, all lower case preceded by an "x", e.g. *Tillandsia x smalliana*.
 - 6) bigenerics are two cross-pollinated Bromeliads of two different genera and given their own name made up from letters of the two parents' genera, preceded by an 'X' e.g. a *Neoregelia x Orthophytum* would be a *X Neophytum*.
- Note: a nothogenus may not necessarily be written in parental order.

Some basic rules also apply when writing a hybrid formula:

- 1) seed / pod parent should always be written first.
- 2) pollen parent second.

When writing or reading a hybrid formula these rules help to easily identify when a species or hybrid has been used as a parent and which is the seed parent.

Much of the information gleaned here was taken from:

[Checklist of Australian Bromeliads, Hybrids and Cultivars](#) by Derek Butcher 1997.
[Plant Names, and How They Got That Way](#) Bromletter Nov/Dec, 2002, Vol. 40, No. 6.

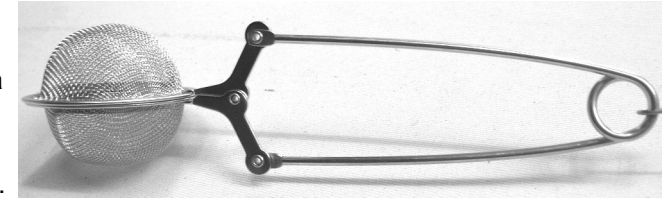
Our two part history article which began in our February issue was discussed to point out the many uses of Bromeliads in day to day life other than just being ornamental or to look pretty. When reprinting older articles we reprint them as written in the day, any nomenclatural changes/corrections are made at the end of the article series or sometimes in brackets following the required correction within the article. (for those wanting to know why I hadn't made the changes).

Show, Tell and Ask!

John brought along quite an array of plants and an object for us to see this month. The object was quite befitting for our discussions about hybrids and hybridising, what is it? It's a tea infuser, a device in which loose, dried tea leaves are placed for steeping or brewing in a mug or a teapot full of hot water.

Are we making tea?

No, we are washing our *Neoregelia* and *Aechmea* seed in it, or any other type of seed with a jelly substance covering them.



Traditionally one would soak the seed in a container of water with a drop of detergent, shaking the container frequently until the seeds appear clean of the jelly substance, strain away the water, repeat until the seed is clean. Once clean, rinse the seed and place them on a paper towel to dry, then spread over your seed raising mix and lightly water.

OR you can squeeze the seed from the pod, jelly and all into the tea infuser and shake this around in a container of water and detergent until the seed are clean, allow them to dry then spread over your seed raising mix and lightly water.

The first couple of plants John showed used to be in *Tillandsia* but have been reclassified by DNA studies. The multi branched one is now *Barfussia* 'Creation' and the unusual form of *Wallisia cyanea* shown here with the tristichous (three sided) inflorescence is

Wallisia 'Triflor'.



John brought some plants along for **Show and Tell** that reminded us of our travels through Chiapas, Mexico. First up was *Tillandsia flabellata*, ► these were seen growing as epiphytes in bright light. It's these conditions John tries to replicate in his shade house by hanging his plants close to the roof. John's next plant is found growing in the tropical forests of southern Mexico through Central America to Panama. A green leaf species that prefers a shady position was *Tillandsia multicaulis*. ▼



Vriesea lubbersii
grown by Helen Clewett



Ananas 'Peppermint Cream'
grown by Mitch Jones



John's next **Show and Tell** actually belongs to Jennifer who was having trouble getting it to establish a good root system so gave it to John hoping he might encourage it along. He certainly did something right as we can see, it's flowering. *Tillandsia* 'Samantha'. ►



Tillandsia 'Leiboldiana Pendant' grown by John Crawford



Neoregelia 'Manoa Beauty'
grown by Dave Boudier



Nidularium rutilans
grown by Keryn Simpson



Neoregelia 'Lorena Lecter'
1st Open John Crawford



xWallfussia 'Creation'
1st Tillandsioidea John Crawford



Tillandsia leiboldiana
grown by Keryn Simpson



Tillandsia 'Tropiflora'
grown by Dave Boudier



'Fire Up The Pines'
1st Decorative Mitch Jones



Tillandsia brachycaulos
Judges Choice Gary McAteer



Tillandsia 'Laurie'
grown by Helen Clewett



Neoregelia 'Red Macaw'
grown by Kayelene Guthrie



'Till. Satellite'
by John Crawford



'Shade of Pink'
by Dave Boudier



Tillandsia flexuosa
shown by John Crawford



'Tillandsia Heaven'
by Keryn Simpson

For **Show, Tell and Ask!** Keryn and Dave brought along a few *Nidularium*s needing some names. These were relatively easy to sort for them and named here for their records.

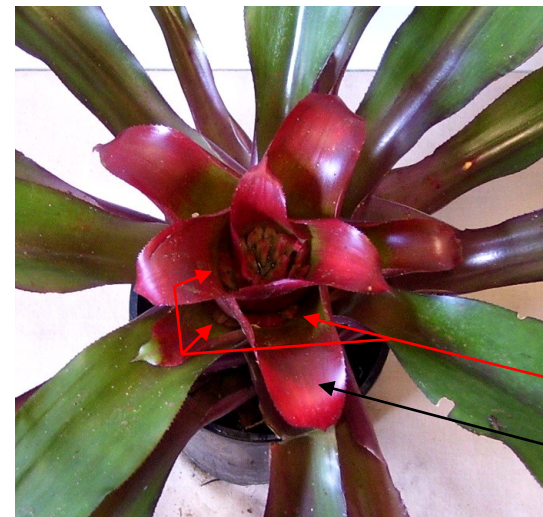


Nidularium rutilans



Nidularium procerum

The genus *Nidularium* is in the Bromeliaceae subfamily Bromelioideae, it was established by the French botanist Charles-Antoine Lemaire in 1854. The genus name *Nidularium* is derived from the latin *nidus* meaning 'nest' in reference to the coloured bracts, each bract contains a cluster of four to five flowers known as fascicles. The nest or inflorescence rises just above the open rosette of leaves not down in the central cup (vase) like that of *Neoregelia*. This is where *Nidularium* differ from *Neoregelia* that mostly have a simple, single unbranched inflorescence, a single cluster of flowers held wholly within the central cup.



Nidularium are found in the rainforests of the Atlantic Coast in Brazil growing both as epiphytes and on the floor of the forest as terrestrials. They will grow in lower light areas as they are considered to be shade lovers whereas *Neoregelia* prefer brightly lit areas.

Flower fascicles
among the
bracts of Keryn and Dave's
Nidularium 'Red Queen'

Another interesting plant brought along by Keryn and Dave for **Show and Tell** was *Nidularium* 'Madonna', named by Jarka Rehak of Sydney NSW, Australia in the early 1980s.

The first plants were discovered in a seed batch growing at Amazon Nursery in Sydney that used to import seed from Alvim Seidel of Brazil in the 1970s and 1980s. It also had a variegated sibling seedling *Nidularium* 'Miranda'.

Derek Butcher says: "has suggestions of a large *Nid. innocentii* but has a scape 15cm long - primary bracts start out white but become bright red at anthesis - white petals - the inflorescence threatens to fall over because the scape is so long. I am happy to treat this Cultivar as being a *Nidularium* even though those across the Tasman consider it may be a *Wittrockia*. Their belief is based on the fact that it has what I call 'Gerry's Whiskers'. Regrettably 'Gerry's Whiskers' also appear in other 'species' in Nidularioids.

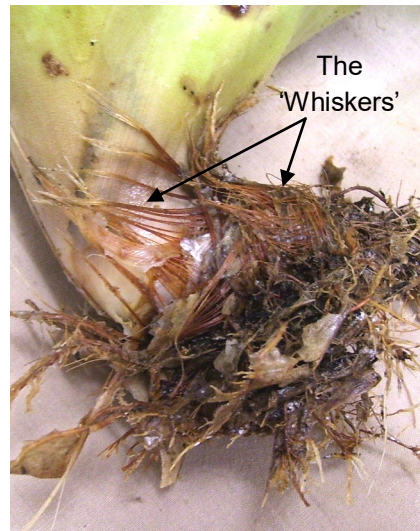
In case you are wondering what 'Gerry's Whiskers' are, they are bristle-like hairs that you sometimes find on offsets in this group. Next time you are removing offsets, look out for them".

There were even suggestions from Maurie Kellett of Melbourne, Robert Larnach and Bill Morris from NSW that *Canistrum* could be involved in this conundrum.

What ever the origins of 'Madonna' and 'Miranda' are, they are both outstanding plants to have in a collection.



Nidularium 'Madonna'



Basal stem of *Nid.* 'Madonna' showing 'Gerry's Whiskers'

Benevolent Bromeliads - Part 2

by Racine Foster

Again, we must consider the versatile, ubiquitous Spanish Moss (*Tillandsia usneoides*) this time as a fiber plant which is now used extensively in the upholstery of Pullman cars, airplane or automobile seats or mattresses for beds and couches. The gathering and processing of this bromeliad takes place almost exclusively in Florida and Louisiana totalling a five million dollar industry in the two states.

In his article "Spanish Moss: Forest By-Product of the South" George S. Corfield says that: "The colorful phases and the romantic story of this activity make the industry in many respects unique among the industries of the world." He states further that "In the Cajun Country (of Louisiana) the Spanish Moss industry is known as a "lagniappe crop" or an extra revenue crop which nature furnishes without the help of man." However, after reading that the average picker gathers about 500 pounds a day of this light stuff, it would seem that man would have to do a considerable amount of work to obtain it.

And the processing is not exactly an easy job although it is slow. From six to eight months the moss remains in pits, trenches or mounds where the heat and moisture rots off the outer grey surface and leaves a tough, hairy, black internal fiber which toughens considerably after this curing process. Removed from the pits it is then hung on great stretches of wire for several weeks of thorough drying. The grades of fiber depend upon the length of time cured. A ginning process cleans the extra debris and straightens the curly fibers before it is packed into bales for sending to all major cities in the East and Mid-West for distribution to the manufacturing companies.

In tracking down facts about how bromeliads are utilized we hadn't even considered them as a source of water to anything but the smallest insects, snakes, lizards and birds until we were surprised upon observing that the water in the bromeliad "lakes" was useful to large animals, and to man as well, for several purposes.

Tillandsia hospitalis, a new species we discovered in Colombia, on the Sierra Nevada de Santa Marta, is a giant bromel growing on the ground near the top of a mountain ridge 8,000 feet up. Its great basins of water between the large leaves serve as the only source of water in this high area for the grazing cattle in the dry season, and our hosts assured us that on many an occasion it has literally saved the lives of the cattle. For that reason it was considered hospitable to cattle, hence its name "hospitalis."

Long will it be remembered when Mulford Foster was ably assisted by the bromeliads' beneficent water reservoir. During a very dry season while crossing the Florida Everglades (in a 1920 Chevrolet) he found his radiator very dry and very hot. It was impossible to travel further until the bromeliads accommodated. Some native *Tillandsia fasciculata* plants from nearby cypress trees yielded a good gallon of water for the stricken radiator and he was then able to proceed on the journey.

Mr. Thomas MacDougall, in his article "Afoot in Mexico" in The Journal of the New York Botanical Garden, July 1948, found the water from bromeliads most welcome. He says in part: "Celso climbed a nearby oak and carefully bent some rosettes of *Tillandsia imperialis* over his can. In a short time he returned with a gallon of water. The successful outcome assured us a leisurely stay. Except for floating debris, water like this is quite clear; small frogs, salamanders and other minute animals that find refuge in bromeliads are mostly forced out when rosettes become water-filled."

"The availability of palatable water is a subject of acute interest to the tropical traveller. Few, if any, of the substitutes are considered the equal of pure water." "That the natives do not make [extensive] use of this water from bromeliads is partly to be explained by their dislike for "dead water" . . . they prefer to dip from a stream or a spring; but I have always found it satisfactory."

On the other hand natives of Yucatan consider such water exceptionally pure as we learn from a quotation copied by Alex Hawkes out of Gardener's Chronicle (1871) p.1386. "One of the most conspicuous plants of Yucatan is a showy species of Bromelia allied to *B. bracteata*,* if not actually that species. It grows parasitically** in the forks of large trees, where it embellishes the scenery with its long, bright scarlet bracts. The Indians, even now, have great admiration for this plant and its



Aechmea bracteata (Swartz) Mez
growing at base of date palm.
Tillandsia fasciculata Swartz on trunk above.
Photo by M.B.Foster

cogener, which played an important part in the sacred rites of their ancestors. It was from the axils of the leaves that the pure water of heaven was collected to be used for the baptism of children. On such and other equally solemn occasions it was essential that water should be used which had come from heaven, and never touched ground; hence the value of this and similar plants which collected the rain in a manner akin to that of our common Teasel."

In the Putumayo region of southern Colombia at Sibundoy we were elated to see the palm frond arch entrance to the thatched house of the Chief of the Sibundoy Indians distinguished with *bicundos*, bromeliads. Only the chief is allowed this decoration and only a color photo could give this display its full brilliance. For us, seeking bromeliads, it was a coup de grace in our jungle searches. (This particular bromel turned out to be one of our new species. *Guzmania sibundoyorum*.)

At Christmas time in Mexico great bundles of *Tillandsia imperialis* are brought to the *mercados* (markets) by the Indians.

Everybody craves to display the decorative, festive spirit that their flaming central cone-like inflorescences radiate. These Tillandsias, called *tenchos* there, have become traditional and as synonymous to a Mexican "Natividad" as the poinsettia (native of Mexico) is to an American Christmas in the United States.



Tillandsia imperialis Morr.

In Costa Rica too, just prior to Christmas, the markets are laden with bundles of flaming flower spikes of lovely *Guzmanias* and *Thecophyllums* proclaiming in their bromeliaceous way that it is Christmas again!

* *B. bracteata* is a synonym for *Aechmea bracteata* and this is undoubtedly the species referred to as it is certainly one of the showiest species found in the Yucatan, Mexican jungles. M. B. F.

** now known to grow epiphytically.

Reprinted from: BSI Journal 1952, Vol.2, in part No.4 and No.6.

Part 1 - nomenclatural changes by Editor 2021:

Tillandsia maxima is a synonym for *Tillandsia australis*.

Puya gummiifera is a synonym for *Puya sodiroana*

Ananas erectifolia = *Ananas erectifolius* is an excluded taxa that is now treated as a cultivar rather than a species because of its domesticated origins.

Part 2 - nomenclatural changes by Editor 2021:

Tillandsia hospitalis is a synonym for *Mezobromelia hospitalis*.

Synonym: a scientific name rejected in favour of an accepted correct name for a species of plant.

Open Popular Vote

1st	John Crawford	<i>Neoregelia</i> 'Lorena Lecter'
2nd	Mitch Jones	<i>Ananas</i> 'Peppermint Cream'
2nd	Helen Clewett	<i>Vriesea lubbersii</i>
2nd	Dave Boudier	<i>Neoregelia</i> 'Manoa Beauty'

Tillandsioideae

1st	John Crawford	<i>xWallfussia</i> 'Creation'
2nd	Helen Clewett	<i>Tillandsia</i> 'Laurie'
3rd	Keryn Simpson	<i>Tillandsia leiboldiana</i>

Decorative

1st	Mitch Jones	'Fire Up The Pines'
-----	-------------	---------------------

Judges Choice

1st	Gary McAteer	<i>Tillandsia brachycaulos</i>
-----	--------------	--------------------------------

Where to Find Bromeliad Groups & Societies Meeting Dates

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.

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.