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

Edition: August 2025

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery
114 Pine Street Wardell 2477

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Study Group meets the third Thursday of each month

Next meeting September 18th 2025 at 11 a.m.

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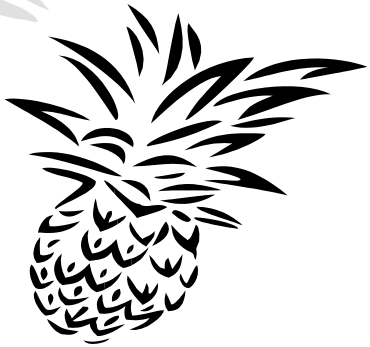

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Meeting July 17th 2025

The meeting was opened at approximately 11.00 am
The eight members were welcomed.
Five apologies were received.

General Business

Fire ant up-date: NSW DPI have conducted another round of fire ant baiting, this is the third time this year our area which includes PineGrove Nursery has been treated. It is good to know the NSW DPI is being very pro-active in this issue.

For those of us attending the Australasian Bromeliad Conference in Brisbane on the 4th - 7th November 2025, we are assured that there are fire ant protocols in place. All sellers are being made aware of the rules which they should already be familiar with as they are the same rules applied to all plant/garden shows etc. held in fire ant zones in Queensland. Hopefully everybody is adhering to them, some hefty fines ($60,000) have already been applied to some Qld turf suppliers for non compliance. We don't wish this upon any Bromeliad growers.

For the protection of our own area, Northern Rivers NSW, being predominantly agricultural we strongly advise that any potted plants purchased in Queensland be bare rooted and washed on site. In regards to the current rules regarding transporting plants across the Qld/NSW border refer to the following web site:

Potted plant fire ant management at National Fire Ant Eradication Program
https://www.fireants.org.au/treat/business/materials/potted-plant-management?

Show, Tell and Ask!

Kayelene asked how best to mount her *Tillandsia bulbosa* onto a piece of cork? Several methods are used depending on personal preference.
Gluing: gel grip, E2000, Liquid Nails to mention a few (do not use silicon or water based glues). The glue can be disguised with a sprinkling of fine potting mix or soil or the cork shavings if you have drilled holes in your cork mount. Hot glue can be used with care, allow to cool for about 20 seconds before placing the plant in or on it.

Tying: cable/zip ties are often used in conjunction with gluing to aid in keeping the plant in place until the glue sets. Strips of stocking wrapped several times around the mount and over the plant is another method often used. Plastic coated wire, drill holes through the mount either side of where the plant is to be attached, feed the wire through the holes and over the plant and twist tie it firm at the back of the mount. Drill more holes as required to hold the plant firmly in place, loose plants are reluctant to attach their roots to the mount.

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.

From Greg Jones, FNCBSG NSW Newsletter February 2022, Sod Webworm:
"I was plagued by them for more than 10 years, where do they originate? Did someone bring them into the country with a Bromeliad shipment or are they a native? They seem content to eat mainly dead and dying plant material but will eat growing plant material as well. They are active in the potting mix and dead and dying leaf axils also old flower spikes seem particularly attractive to the caterpillars and are indicated by a fine web and dried droppings. They take a long time to grow and pupate before becoming a small moth that is very elusive and hard to catch. I have seen them on most Bromeliads especially Neoregelias, pineapples and of course Tillandsias. I looked everywhere I could think of on the internet but the closest match I could come up with is the Sod Webworm, a lawn pest which I am sure they are related to. I was desperate to get rid of them and used Bifenthrin a contact residual killer for lawn grubs. This treatment worked so well I have nothing to take photos of, so someone else will have to supply them. Just be aware that their webs take a long time to disintegrate leading to the thought the treatment has not worked so you have to find some of the dead and dying grubs to be sure**"**.

Kayelene visited Brisbane Botanic Gardens recently which are located in Mount Coot-tha Queensland, not too far from the Brisbane CBD. There are many exhibits within the 56 hectares displaying a variety of habitats: cactus gardens, Japanese Gardens and of course, lots of Bromeliads. This is a wonderful place to spend a day roaming about the gardens and relaxing around the central lake with a snack from the Gardens Cafe.

Gary asked if anybody had had success growing *Tillandsia andreana* in our area. This plant was found growing in the Colombian cloud forests in 1876 by Édouard André where it grows as an epiphyte at altitudes from 1500 to 1700m with temperatures ranging from 16-23°C (61-73°F). With these temperature ranges we need to give it warmth in winter but try and keep it in a cooler position in summer. They have been known to survive several seasons in our area with care but if complacency steps in and care is forgotten they can succumb to the elements, they don't seem to enjoy our high humidity in summer.

Open Popular Vote

1st	Helen Clewett	*Billbergia sanderiana*
2nd	Keryn Simpson	*Neoregelia* 'Lorena Lector'
3rd	Kayelene Guthrie	*Guzmania wittmackii*

Tillandsia

1st	Gary McAteer	*Tillandsia* 'Fuego'
2nd	Kayelene Guthrie	*Tillandsia bulbosa*
2rd	Keryn Simpson	*Tillandsia streptophylla*

Monthly Genus — Vriesea and Guzmania

1st	Kayelene Guthrie	*Cryptanthus zonatus*

Judges Choice

1st	Helen Clewett	*Billbergia sanderiana*

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.

Bromeliad Species Database (BSD): www.bsi.org/members/?bsd
Refer to this site for species identification, photos, descriptions and more.

New Bromeliad Taxon List : https://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 many with Table of Contents Index and there's Detective Derek Articles.

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

Where do I Find the 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.

Keryn brought along a pot full of plants, some with variegation, one with partial variegation, stripes on its lower leaves only and one with no variegation at all. Her query was "when is a usually variegated plant that has no variegation called a novar"?

The term 'novar' was coined in the late 1990s by Dennis Cathcart of Tropiflora Nursery in the USA for the non variegated offsets of normally variegated plants. Reasoning being, if one removes a plain green pup off a variegated plant and sells it, the buyer knows there is a chance that this plant could produce a variegated pup at some time in the future and if it does it is not a sport (something new) but the original variegation returning.

BUT when is a 'novar' a 'novar' meaning it has NO variegation, exactly then, when it has NO variegation. Here in Keryn's case we have a poorly variegated plant, it has some stripes, so it's just poorly variegated. However don't despair these '*semi-novars*' can and do produce some good variegated pups.

How to write your label:

Plant with variegation: *Neoregelia* 'Tricolor'

Plant that's lost variegation: *Neoregelia* 'Tricolor' 'novar'

Monthly Genus for July was Cryptanthus

Cryptanthus zonatus
1st Open
Kayelene Guthrie

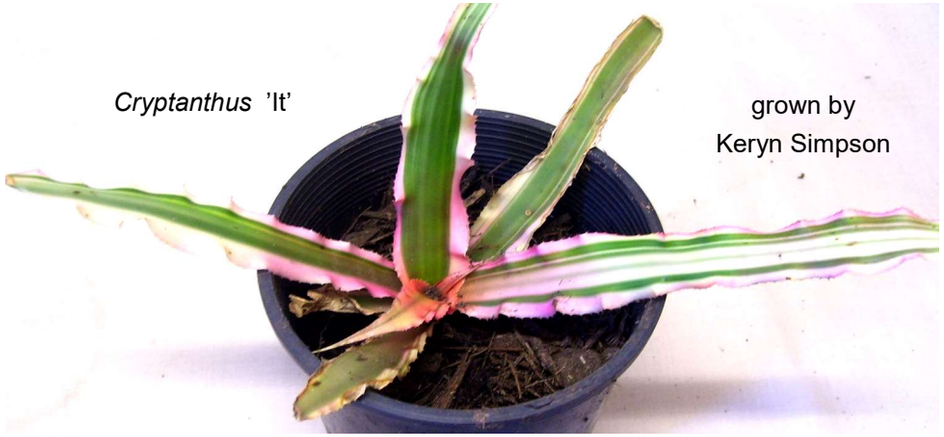
The name zonatus meaning: banded, zoned or striped, referring to the leaves.

Cryptanthus (Otto & Dietrich 1836) are endemic to Brazil, ranging from the south eastern most states of Rio de Janeiro (their southern most limit), Minas Gerais and Espírito Santo, to the north eastern states of Bahia, Sergipe, Alagos, Pernambuco, Paraíba and Rio Grande do Norte (the northern most limit). The 69 accepted species and five varieties are mostly terrestrial or saxicolous living in shaded or partially shaded sites in low altitude areas, from sea level to around 400 metres altitude, rarely to 700 metres.

The name of the genus Cryptanthus is a reference to the inconspicuous flower fascicles immersed in the foliaceous primary bracts, it's based on the Greek words *kryptos* (hidden) and *anthos* (flower), meaning "hidden flowers".

Cryptanthus 'It'

grown by
Keryn Simpson



Helen showed a Cryptanthus terrarium she has been cultivating for many years now with good success.

A 'closed' terrarium is relatively easy to maintain. It creates its own water cycle where the water evaporates from the soil and condenses on the glass and runs back down to the soil. A well balanced terrarium will last for many years by creating its own environment providing it has not been overwatered. Excess water can cause rot and other diseases. All the while the plants look happy in their glass chamber, leave them be. When overcrowding is obvious it may be necessary to thin the plants out, this tends to be done naturally, old plants die and feed the next generation.

Best grown in filtered light not full sun as the glass may magnify the intensity of the sun and burn/cook the contents of your terrarium.

Open terrarium: those that do not have a sealed lid need a lot more care regards watering, these need to be checked maybe twice a week, more often in the warmer months.

Cryptanthus, due to their nature of spreading across the forest floor are often referred to as 'Earth Stars'. They propagate quite easily, offsets virtually fall off the parent plant if touched or by a light tug when they're ready for transplanting.

Striking roots on Cryptanthus pups can sometimes be quite difficult. Often the issue is simple, low humidity causing the leaves to roll under themselves which then push the offset up away from the substrate. Increase the humidity in your growing area, this can be done by placing thick wads of newspaper, carpet, gravel etc in a tray with water in it, just enough to keep it damp, sit your pots of Cryptanthus on the trays.

Alternatively, use a rubber band or plastic coated wire, tie over the Cryptanthus and under the pot to help hold it onto the substrate, once roots are established the ties can be removed.

The key to growing Cryptanthus successfully is humidity - happy growing!

Billbergia sanderiana 1st Open and Judges Choice Helen Clewett

Neoregelia ‘Lorena Lector’
grown by Keryn Simpson

Guzmania wittmackii
grown by Kayelene Guthrie

Tillandsia ’Fuego’
1st Tillandsia Gary McAteer

Tillandsia bulbosa
grown by Kayelene Guthrie

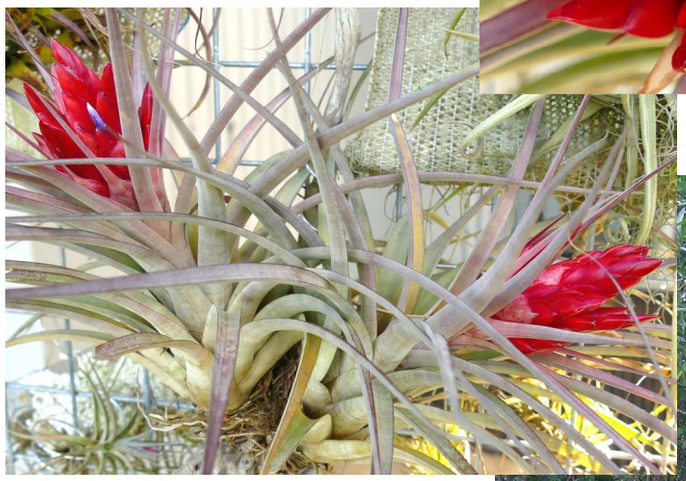
Tillandsia streptophylla grown by Keryn Simpson

Tillandsia **'Hal's Nidus'**

Also known as *Till*. *fasciculata* "Minor", *Till*. nidus or *Till*. x *nidus* and also as *Till. fasciculata* hybrid ex Pinegrove.

It's known as *Till*. 'Coquette' in the US.

Refer article FNCBSG NSW Newsletter: November 2015, p.10.



Puya floccosa

In its natural habitat it grows on rock and rocky ground at 270-3000 metres altitude in Costa Rica, Colombia, Venezuela, and Brazil being the greatest range of all the Puya. This is an attempt at duplicating some of its growing conditions here.

Tillandsia australis

A plant that is a sight to behold, a stunning species when in flower, this pendulous spike is around 900 mm long. It has been grown in full sun from early morning to around 11.00 am, it's watered regularly and is foliar fertilized often, the plant is 900mm across and about 500mm high.

In its natural habitats in southern Bolivia and Argentina it can be found growing as an epiphyte or saxicolously from around 700 - 3900 metres altitude.

The type specimen was recorded by Lorentz and Hieronymus in 1873.

Aechmea **'Makoyana'**

The new offsets on this cultivar emerge pinkish orange, they lose this colour as they mature. Previously known as *Aechmea comata* var. *makoyana,* current ICN rules do not recognise variegated species, therefore being described from a cultivated plant of unknown distribution it is best treated as a cultivar.

Wittmackia burle-marxii

Described in 1979 as *Aechmea burle-marxii* by Pereira, the type specimen, the specimen from which the botanical description was written was found in the State of Minas Gerais by Roberto Burle Marx and flowered in cultivation on the 12th September 1978.

The genus Wittmackia was first described and published in 1891, it was named in honour of Ludwig Wittmack (1839-1929) the German botanist. The genus name was resurrected after a 2017 study of the Ronnbergia Alliance. (Aguirre-Santoro, 2017).

The pyramidal inflorescence is bipinnate at its base and simple towards the top. The yellow sepals make the inflorescence stand out in its early stages when in flower with white petals. The inflorescence turns red after anthesis and remains attractive for quite a long period of time. A very showy plant in both colour phases of the inflorescence.

The 46 species of Wittmackia can be found growing in moist mountain forests to semi deciduous forests at mostly 600 to 800 and up to 1600 metres elevation in Mexico through Central America to Tropical South America, including parts of the Caribbean.

Wittmackia burle-marxii is relatively easy to grow as can be seen here growing in dappled light on the forest floor in the leaf litter, it can also be grown up in the trees as an epiphyte. It demands little care and attention receiving water only when it rains. It's not a large plant at around 600mm across, the softish leaves are lightly armed with 1mm spines along their edges making it a comfortable plant to handle causing little damage to one's arms.

Bromeliads - Houseplants for Today and Tomorrow Part 11

by Walter Richter (Translated by Adda Abendroth, Teresopolis, Brazil)
Raising and Cultivating Tillandsias continued: BSI 1970 Vol. 20 (2)

Extreme atmospheric Tillandsias demand careful consideration of their personal needs, otherwise, although hardy, they will not survive, as they are extremely sensitive. Preparation for the hard life begins with germination. My experience is that with them the process takes a few days less than with Vriesea or Tillandsia coming from the rainforest. Possibly this is tied up with available humidity, an attempt to get the brood underway while the moisture lasts. The seeds, like those of Group II float on the air and get caught on the bark of trees. An airy abode like that has little nourishment to offer and development proceeds very slowly after a speedy start. To reproduce these conditions in the glasshouse is often a problem, but it is wrong to assume that what one may consider to be improved surroundings will favour growth or accelerate development. The young plants simply do not react.

To spread the seed of an extreme atmospheric species, for example, *Tillandsia ionantha*, on an earth mixture would be a gross mistake in view of the home conditions described. The correct way is to select some coarse and lasting fibre, such as osmunda, spread it on a layer of peat in a shallow clay dish, as previously described on seeds with a hair crown (coma). The only difference is that the growth of the seedlings is much slower and that makes raising far more difficult than with Vriesea or Guzmania. If the mix in the containers is too wet, there is danger of an untimely attack of algae, this would kill the seedlings as they cannot stand continuous moisture. What they need is frequent alternation of moist and dry. Let the mix dry out well and then give the seedlings a rapid spray, allowing a moderate amount of moisture. Periodic spraying more or less equals conditions in the native land.

Dr. Oeser, well known collector of Tillandsias, was the first to develop a method of cultivation that equals native home conditions. He uses coarse barked sections of branches on which to sow his seeds. The seeds are spread loosely on the bark and are kept in place by a silk thread rolled around the bark in spirals about 1 cm apart. It is important to use silk because it is strong enough to last a while. Wire is not advisable, as oxidation might hurt the seedlings. The branch sections are then suspended in a humid warm-house. Sprayings are made at intervals to allow sufficient humidity. After germination an occasional dry spell of limited duration is not dangerous, in some ways it is even advantageous. However, seedlings raised in this manner develop very slowly. Ordinarily only species that come from the most difficult home conditions are grown in this way. It takes years before the seedlings acquire respectable size.

If the seedlings are crowded, it is necessary to transplant them onto another base of the same type. The plantlets must be loosened skilfully and refastened in the new location with a bit of peat fibre or sphagnum. Only rain water, or water from a pond or river, should be used for spraying. What nutrients this water may contain will usually suffice, but a much diluted solution of pigeon or cow manure may be added to the spray.

As with other seeds, such as orchids, comparatively close proximity of young plant favours growth. So let the seedlings alone until they have reached the size where they can shift for themselves and then mount them first on small sections of branch and later on larger ones, or on cuttings or root that harmonize with the size of the plants and their way of growth. Species with few roots should be refastened without fibre or mix of any kind, or using only a small amount. Don't use wire. For mix, use fern-root such as osmunda or polypodium and a little sphagnum or peat fibre. The idea is to make moisture endure a little longer than the naked wooden base would permit.

Continued: BSI 1970 Vol. 20 (3)

As yet no research is available to inform us if and to what extent the bark of the host may affect the epiphytes that live on it. Possibly there is a relation of some kind, because some Tillandsias live only on certain trees, not on others. The type of bark may play a role in that when it is rough it propitiates a readier anchoring site, or it may retain moisture for a longer period. For all we know, exudation from the bark may favour germination and growth. Epiphytes in cultivation depend only on their leaves for food, the roots are always meagre. Hard and strong though they may be, theirs is chiefly the hold-fast job. Small sized types often form extensive cushions. In nature this is an answer to the challenge of scarcity of moisture, a close community is better prepared to store what moisture there is. A single plant is more exposed to the ravages of sun and wind than is a dense cluster. Such agglomerations need not be all of a kind. In the homeland, clusters consisting of different species of more or less equal size are not out of the ordinary.

But if the companions differ in size, the smaller ones will soon be overgrown. A clever plantsman may mount an assembly of plantlets of different sizes and appearance and nurse it as a special show-piece of epiphytic natural plant-life.

Small Tillandsias mounted on a fragment of wood are best left alone for as long as possible. They do not like to be disturbed, especially if their roots are not thoroughly anchored. The collector may indulge in the luxury of leaving them untouched, but the nurseryman's aim is to increase and produce. Still, even in cultivation for ample production the little plants do better in company than each by itself. When the decision to break them up can be postponed no longer,

utmost care should be exercised in the transplanting, harsh treatment can ruin the plants. Plants that have issued new shoots after blooming should be separated only when the pup has hardened, as long as it is soft, survival is doubtful. Therefore, it is better to wait long enough. The cuttings should be mounted on wood as described and judiciously sprayed with a view to avoiding decay while they adapt to the new situation.

Importation of small Tillandsia species is hardly a problem, they weigh so little. Successful importing, however, requires a proficient helper in the homeland, that is in Central or South America, someone who is willing to go to the trouble of collecting, packing and mailing the plants. An airy container is necessary. Tightly closed cardboard boxes mean death to the plants because they shut out oxygen. Excess humidity is dangerous, not only for the white, scaly species, which are especially sensitive, but for bromeliads in general, all of them. The best containers are woven baskets or similar cases that permit access of air. The plants may dry up somewhat in transit, but that doesn't matter, they will pick up very soon. Upon receipt of the plants, discard only the parts that are totally spoiled, that is leaves or inflorescence. Then place the new arrivals in a clean box or earthen dish in a moderately warm, airy and bright location where also the air is dry. During the first two weeks the plants should not receive humidity of any kind. Only when all danger of decay has subsided they may be given a slight spray. That, plus gradually increased humidity, should coax the newcomers to sprout. Tiny new roots and new leaf tips will be the response. The time has arrived to mount them or to plant them in pots.

I have put the most difficult of the extreme epiphytes at the beginning of the description of my cultivation process. More abundant roots on a plant indicate a species that needs some humus, i.e. *Tillandsia lindenii, T. cyanea, T. fasciculata* and many others. They may be planted in pots or in orchid baskets, little cases made of square borders. The voids in between can be filled with moss or coarse plant mix, as described in Group II. Small containers of various materials, such as cork or other bark can be made into nice little ornamentals. The amount of scales on the leaves generally indicates what environment the plant comes from and consequently, its demands.

Tillandsia with a thick coat of scales need much light. If they are used to it, they can even stand direct sun. Temperatures should be between 12 and 20°C, not including higher readings in summer. Air humidity should vary in a rather wide range. Constant high air humidity and permanent shade, the genuine glass house air, is what they cannot stand. There the plants get green and covered with algae, they will not grow and you can see how they suffer. Do not be tempted to dip species with a dense scale coat unless you are sure prevailing air conditions allow for quick and thorough drying. If humidity can't evaporate within a short time and night falls while the plants are still moist, menace of decay

becomes very real. In summer old, well developed specimens can be placed out in the open to advantage, suspended in a niche. Find a warm corner where there is no draft and where natural shadow will provide a certain amount of protection during the hottest hours of the day. On very hot and dry days frequent spraying is essential. Long rainy spells can harm plants that have been put outdoors for a short time and have not yet sufficiently hardened. Look at them to see they don't need some kind of protection. Judicious care of this sort and good climate conditions propitiate excellent results, especially if enough light promotes flowering.

Species that come from higher altitudes should not be pampered in winter, keep them cool and fairly dry. It means temperature readings between 5 and 10°C as much light as possible, very little water and fresh moderately humid air. But even in this case, beware of generalization. For success in cultivation, conditions prevailing in the homeland should be the model to follow. Like epiphytes generally, Tillandsia are easy to adapt.

Rain forest specimens, that is plants with smooth leaves and little or no scales, do not like direct sun, give them half shade, but near the glass. Species like *Tillandsia cyanea, T. anceps* and *T. flabellata,* which figure here are because they are favourites in the trade, need temperatures between 15 and 25°C. More warmth combined with sufficient moisture promotes growth. Growth is also promoted by the addition of a little dry, crushed cow manure in the mix. A link between the two extremes, the rainforest types and the dry epiphytes, are the transition types, but to deal with them here individually would make my story too long. More than once I have pointed out that epiphytes possess exceptional adaptability. If mistakes are made in the cultivation of a plant whose home conditions are not known, they may only affect the plants looks, its shape or its size, but not its survival.

Once again let me refer to fertilizers. Temptation to speed up the extremely slow growth rhythm is ever present. The use of rain water is always recommended. It contains some nutrients, but not enough to nourish the plant adequately. Visualize the delicate structure of the tiny scales in charge of capturing food from the air and passing it onto the plant body and you will readily realize that only a very small amount can be transmitted in this way. Whatever the scales catch must be totally assimilable, as a deposit from evaporation would put the scales out of commission. The same, of course, holds for sprays. A much diluted infusion of pigeon or cow manure may be used. In the growing period fertilizers can be sprayed daily, as long as nothing turns up to advise against it.

To be continued ……...

Note from Ed: some Tillandsias in this article have been reclassified by DNA studies as Wallisia e.g: *Wallisia cyanea*, *Wallisia anceps* and *Tillandsia lindenii* is now *Wallisia cyanea*.