

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

Edition: April 2021

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 20th May 2021 at 11 a.m.

Editorial Team:

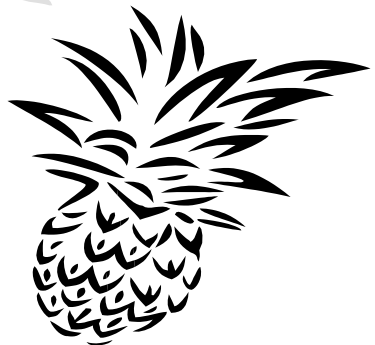
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Meeting 18th March 2021

The meeting was opened at approximately 11.00 am
The 11 members and one visitor present were welcomed.
Four apologies were received.

General Business

How lucky were we with the weather again this month. With the bad weather expected to continue, several members had sent their apologies due to concerns about flooding rains. However after a short shower early in the morning the clouds parted, the sun shone through and that's how it remained until after the last member left late in the afternoon as the showers returned !

Laurie, a visitor from Sydney expressed his appreciation of being able to attend the meeting - hopefully he gained a little extra knowledge on the day. All visitors to our area are most welcome to attend our meetings with the hope that we can pass on some of our knowledge as well as gain some ourselves.

A review of the March Newsletter was had with several members expressing their thoughts on selling hybrid seed. Of most interest was how to correctly write a formula on labels if one does collect his or her own seed from a hybrid and grow it. We all now realise the importance of not only writing the seed parent (mother's) name on the label but to include as much additional information as possible. Writing only the seed parent name on the label can cause identification issues in the future.

During the month we have had some feed back on this issue, one being from Peter Franklin of The Hunter District Bromeliad Society:

“I agree to a certain extent. It is possible/likely that many so called "species" seed are actually garden hybrids or simply misnamed or misidentified.

I reckon the best that we can ever do is advertise them as something like

1. Possibly genus - A species - A or
2. Seed from Hybrid genus - Y 'cultivar name' but cannot be called thus.

Won't stop people collecting/swapping/growing their own seed though. Its all a bit too easy to acquire/grow seed and end up with something or other.

Every year or two I talk to our meeting about species-hybrid naming, registration etc.”

Hopefully the more we all discuss this issue at meetings, the greater the chance more people will understand the correct way to name their seed growing efforts.

Over the years there have been many discussions regarding the use of the 'F' and its meaning/reference and our general understanding of its use as being: **F1** being the first filial generation of a cross.

F2 second filial generation is where much confusion reigns:
The offspring resulting from crossing members of the F1 generation among themselves. Back Crossing.

Grant Paterson was another helpful reader of our Newsletter, this month offering to point us in the right direction regards the use of the 'F'.

“This is such a complicated subject and not well understood by even notable people in the bromeliad world.

The article is a good start. However the application of the F is not correct for F2 and above. This may be picky but if we aim to educate we should be correct.

My lectures in plant breeding would be in total despair at the state of the ornamental plant breeding at present. The International Code of Nomenclature for Cultivated Plants - Ninth Edition sets out a framework for recording and registering hybrids, cultivars etc. However some bromeliad "experts" choose to disregard these rules and that's how this stuff starts.

Dare I say the orchid world has a much better grip on these things but have to pay to register a new CV or hybrid, this stops the proliferation of same same plants, I think reference to the "Rules" International Code of Nomenclature for Cultivated Plants - Ninth Edition in the article would be a good thing.

With regard to use of 'F', see page 146, The International Code of Nomenclature for Cultivated Plants - Ninth Edition.”

The following has been taken from the ICNCP - Ninth Edition p.146:

F1 hybrid (single cross): a plant breeding term for the result of a repeatable single cross between two pure-bred lines (ICNCP Art. 2.16).

Art. 2.16: Plants of the same F1 hybrid (the result of a deliberate repeatable single cross between two pure-bred lines) may form a cultivar.

F2 hybrid: a plant breeding term for the result of self-pollination within a population of an F1 hybrid.

Thank you to both Peter Franklin and Grant Paterson for their responses to two confusing issues many Bromeliad enthusiasts encounter. The more constructive feed back like this we get, the better it is for all of us, so feel free to respond to any of our articles and help others learn more about Bromeliad cultivation, hybridising and labelling/naming.

Show, Tell and Ask!

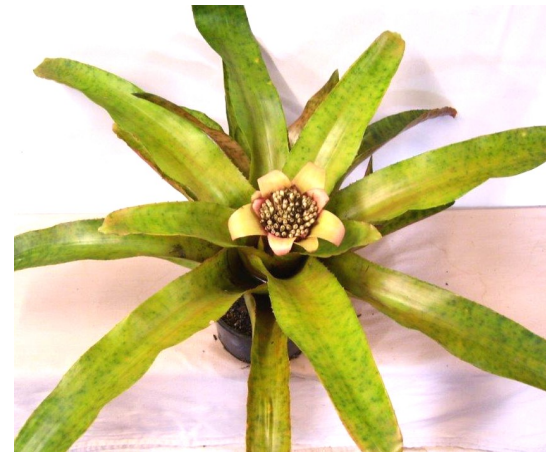
Ian asked if some plants had had recent name changes because he couldn't find them when he was searching for them on his computer.

Over the past few years we have seen many species reclassified giving rise to some new families with related genera. These divisions occur as a result of botanists placing new found plants into the closest fit family at that time, later to be reclassified. As these families grow, similarities are noticed between some family members that distinctly differentiate them from others within the family. A division within a family can give rise to another group of related genera or even help resurrect old names that take precedence e.g. **Tillandsioideae** is a sub-family of plants in the Bromeliad family Bromeliaceae, within this subfamily there are multiple genera like Tillandsia, Guzmania and Vriesea to name a few. Within the genera Tillandsia there was a group of related species causing confusion that were eventually placed into the resurrected genera of Wallisia named after Gustav Wallis (1 May 1830 – 20 June 1878) who was a German plant collector. To find this and similar species changes refer to the New Bromeliad Taxon List at <http://bromeliad.nl/taxonlist>. If the name is in black it has not been changed, red is indicating old obsolete/defunct name, green is the new accepted name.

In addition to species name changes occasionally Geoff Lawn the International Cultivar Registrar has cause to change a name on the BCR due to a spelling correction e.g. *Neoregelia* 'Hannibal Lector' because the originally published and registered name was in error as *Neo*. 'Hannibal Lector', note 'or' not 'er'.

Other more difficult name changes to find are duplicated names and there have been many of these over the years e.g. *Neoregelia* 'Black Knight'. This name was originally in the Register twice but has been amended to differentiate the two from each another, one being Carrone's, the other by Oeser. Therefore we now have *Neo*. 'Carrone's Black Knight' and *Neo*. 'Oeser's Black Knight'. I find the easiest way to find a 'wayward name' is to enter as little info into the BCR search box as possible. In this case you could enter only black and scroll down the list until you find what you are searching for or enter black knight, scroll down the list to find the two names containing 'Black Knight'.

If searching for a plant you have come across somewhere on the internet and wish to confirm it's identity or additional details remember not all of us are great spellers. In such cases I start looking for related spellings or similar sounding words because sometimes people write what they think the name is e.g. Fame instead of 'Flame'. Some names are American spelling color not English colour so we must make allowance for this as some search engines are type sensitive.



Edmundoa lindenii var. *rosea*
Leaves reddish to dark red.
Primary bracts rose to reddish color.

Plant 900 mm across.
Inflorescence 90 mm across.

Edmundoa var. *rosea* can still be found on the Taxon List, however the plant below, grown from seed received by Peter Tristram from Rio de Janeiro Bot. Gardens as *Edmundoa lindenii* produced red primary bracts and is much

larger than *Edmundoa lindenii* var. *rosea* as we know it, therefore it was best to give it a cultivar name to differentiate it:

Edmundoa 'Rosea'

Leaves green with darker spots.

Primary bracts rose to reddish.

Plant 1600 mm across.
Inflorescence rose red, 240 mm across.



Another that's had a name change from *Canistrum* to *Edmundoa* based on the 'hairy flowers' but still is occasionally seen under its old name of *Canistrum lindenii* albomarg. should have its label changed to *Edmundoa* 'Alvim Seidel' Plant 700 mm across.
Inflorescence white, 90 mm across.

Also look for *Edmundoa* 'Brazil' it's the variegated form.

In case anybody hasn't noticed it's been raining around here almost constantly since the end of November 2020, watering the shade houses these past months has been minimal, maybe once. Great for those on farms etc. who solely rely on their own water tank supplies not having the luxury of town water supplies. It's good to know their tanks and dams are being kept full. However, one of the bad side effects of more than a metre of rain, is rot. Keep plants well spaced for good air circulation, if plants are on the floor of your shade house ensure drainage is maintained, minimise puddles. This is a good time to clean your plants, wet leaves are often easier to remove which helps solve a few problems, it allows better air circulation around the base of your plants, allows Tillandsias to dry faster and helps with any bug problems. I know people who grow their potted Hohenbergias in chunks of styrene only for maximum drainage, with no additional additives, others use coarse gravel/scoria only, size 10 to 20 mm. Taking care of the wet feet issue also helps plants winter better too, our seasons are beginning to change now, I'm feeling Autumn is in the air.

Recently methods of fertilising our plants was raised, whether to use only slow release fertiliser prill in the mix at potting time or foliar fertilise using products like Thrive, Power Feed or one of the many other foliar products available. Both methods are acceptable or even both together adding prill to the mix and foliar feed regularly. Mitch explained the method he has set up to foliar feed his plant collection and gardens using a 1000 ltr water tank and pump. Full article with step by step set-up description and pictures begins on page 13.

Look out for these guys they may be useful to us: Toxorhynchites, also called elephant mosquito or mosquito eater, is a genus of diurnal and often relatively colorful mosquitoes, found worldwide between about 35° north and 35° south. It includes the largest known species of mosquito, at up to 18 mm (0.71 in) in length and 24 mm (0.94 in) in wingspan. It is among the many kinds of mosquito that do not consume blood. The adults subsist on carbohydrate-rich materials, such as honeydew, or saps and juices from damaged plants, refuse, fruit, and nectar.

Their larvae prey on the larvae of other mosquitoes and similar nektonic prey, making Toxorhynchites beneficial to humans. In this respect, they contrast with blood-sucking species of mosquitoes. Toxorhynchites larvae live on a protein and fat-rich diet of aquatic animals such as mosquito larvae. They have no need to risk their lives sucking blood in adulthood, having already accumulated the necessary materials for oogenesis and vitellogenesis.

Most species occur in forests. The larvae of one jungle variety, *Toxorhynchites splendens*, consume larvae of other mosquito species occurring in tree crevices, particularly *Aedes aegypti*.

Neoregelia eleutheropetala grown from seed collected in Ecuador in 2015, this is its second flowering, perhaps next flowering I should dissect an inflorescence to confirm its identity and compare it to Ules description. Ernst Heinrich Georg Ule, a German botanist 1854 - 1915, described it in 1907.



Often we read of oddities in our collections. I've had a *Dyckia* flower each year for 14 years with several fused/crested inflorescences, should I register it as a sport, an oddity, NO, it flowered normally this past season. How to upset oddity buyers if their purchase reverts back to a normal growth habit.

We occasionally have *Vrieseas* send out lateral inflorescences which is often explained as the shoot was going to form into a pup but changed its mind and formed into an inflorescence instead. Will it do it again, who knows. This is what happened to our *Neoregelia eleutheropetala* this season, a stolon formed, it was going to develop a pup but changed its mind and flowered instead clearly showing a compound (branched) inflorescence with white petals. Will it do it again ??





Cryptanthus bivittatus
1st Open and Judges Choice
Helen Clewett



Tillandsia 'Fuego'
1st Tillandsioidea Keryn Simpson



Aechmea 'Burning Bush' grown by Keryn Simpson



'Thirsty'
1st Decorative Keryn Simpson



Aechmea 'Skotak's Spirit'
grown by Mitch Jones



Neoregelia 'Wild Rabbit'
grown by Dave Boudier



'Happy Easter'
by Helen Clewett



'Island Crashed'
by Mitch Jones



'Egg Hunt'
by Dave Boudier



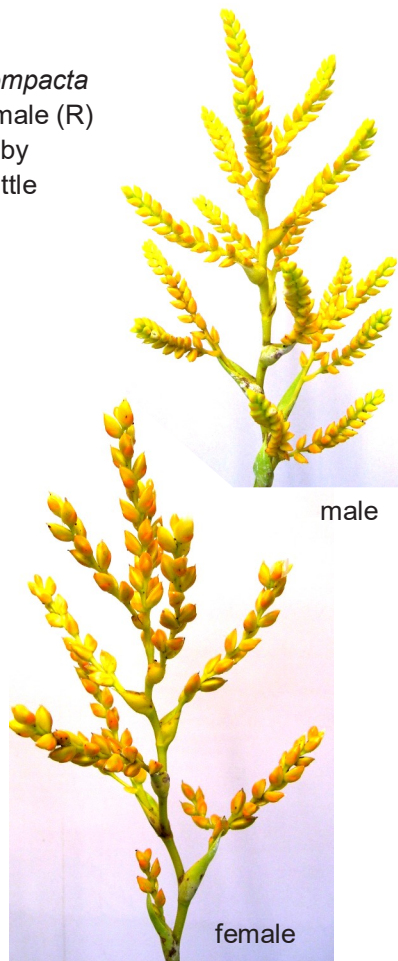
Tillandsia 'Yabba'
grown by Helen Clewett



Tillandsia 'Califano'
grown by Keryn Simpson

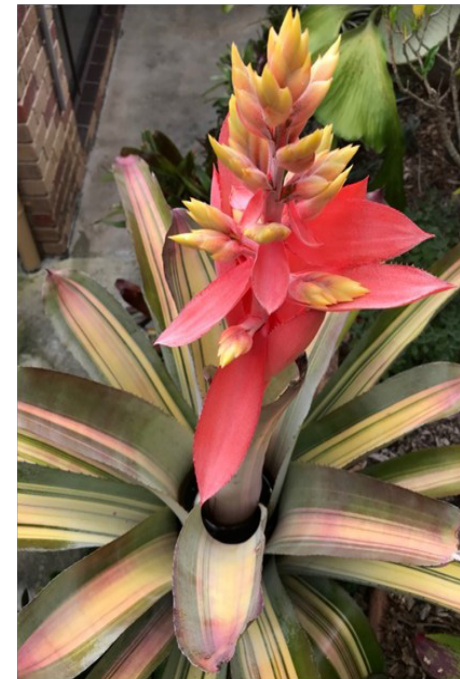


Catopsis compacta
female (L), male (R)
grown by
Ross Little

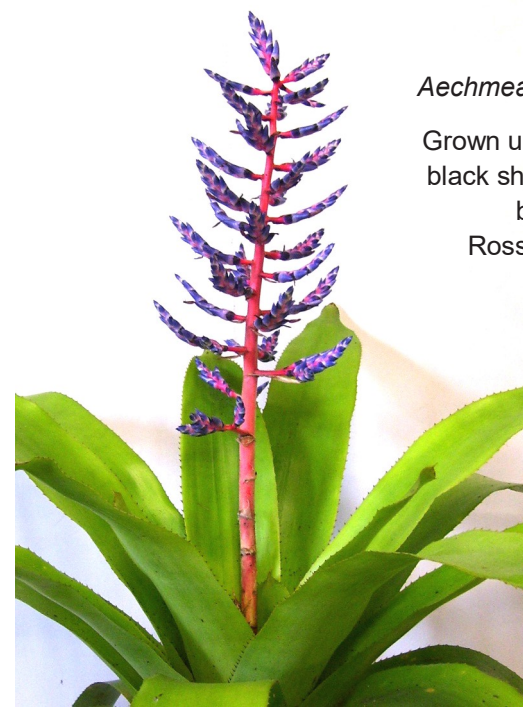


male

female



Aechmea 'Loie's Pride' left, grown by Drew Maywald - the inflorescence is quite stunning and just keeps getting taller, I'm looking forward to it flowering. The pink in the leaves only appeared since the inflorescence started to develop. *Aechmea* 'Loie's Pride' above grown by Ross little needs brighter light.



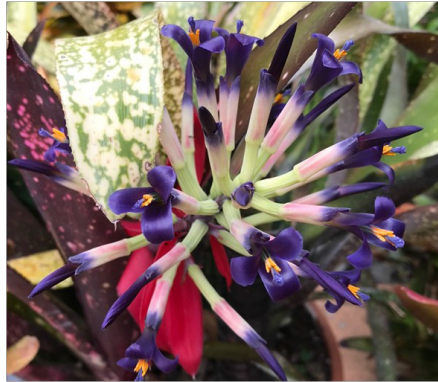
Aechmea 'Del Mar'
Grown under 70%
black shade cloth
by
Ross Little



Like most Bromeliad growers Drew has been enjoying some beautiful flowers on his Bromeliads over the last 2 or 3 months.

Here are some photos he has sent in for **Show and Tell** of a few in flower.

The purple petals of this *Billbergia* 'Grand Finale' are outstanding. Like all *Billbergias*, though they don't last long.



The inflorescence on this beautiful *Tillandsia somnians* is around 1200 mm tall. The pups form in the bracts on the stem of the inflorescence.

Drew said he had great difficulty in getting some good photos of this plant.



The inflorescence of *Vriesea* 'Megan' grows to about a metre above the plant. The individual flowers are a joy to behold.

The inflorescence of *Tillandsia* 'Dennis' rose up around 400 mm from the base of the plant. The small delicate flowers are beautiful, and it flowers for weeks.



Home DIY Fertigation System

by Mitch Jones 2021

Fertigation used in home gardens or private plant collections is probably the most efficient and effective way of applying fertiliser to your plants. A fertigation system delivers nutrients directly to the plant by using a hose or irrigation system such as sprinklers.

This allows nutrient application to be more accurate, uniform and immediately available to the plants.

Fertilisers are best applied early in the morning or in the evening to allow the plants to uptake the nutrients whilst photosynthesising or at rest.

There is no need to buy expensive equipment to do this task.

All you require is the following:

- 1: IBC (Industrial Bulk Container) This should be food grade or have only contained fertiliser or non-toxic products that are not harmful to plants.
- 2: Hose adaptor for IBC.
- 3: Pump of your choice. (petrol or electric)
- 4: Existing hose or irrigation system to connect to.

Tanks and adaptors can be sourced online or from farm / rural supplier stores.

How to make the system:

- 1: Place IBC tank on a suitable flat area that is accessible.
- 2: Attach the hose adaptor 'A' to the tank where the tap / valve is.
- 3: Connect a short hose from the tank adaptor 'A' to the inlet of the pump.
- 4: Attach hose or irrigation system to the outlet of the pump.
- 5: Fill tank with water.
- 6: Add fertiliser.
- 7: Circulate for 10 to 15 minutes.
- 8: Time to start watering.



This system can also be used to apply insecticides and fungicides.

Liquid Fertiliser methodologies:

There are two simple methodologies to apply liquid fertiliser “Standard” or “Micro dosing”. Standard rate is weekly or fortnightly that gives plants a large hit of fertiliser and micro-dosing is small quantities over intervals of watering.

Liquid Fertiliser Micro-dosing:

Fertiliser micro-dosing is an easy method that commercial nurseries and the horticultural industry use to apply fertiliser in small quantities to increase yield, plant production and growth.

The amount of fertiliser is normally at half or quarter strength of the recommended application rate.

The method involves applying fertiliser at regular intervals in small doses every watering or every second watering followed by a flush of pure rainwater.

This method I use on my Alcantarea, Aroid and Draceana collections alongside my tropical gardens to ensure the plants stay healthy, in prime condition and so they look their best.

Application rate based on 1000 litres of water.

Fertiliser	Micro Dosage	Standard Rate
Thrive All-purpose 1kg	250 grams to 500 grams to 1000L water	1kg to 1000L of water
Hortico All Purpose 1kg	250 grams to 500 grams to 1000L water	1kg to 1000L of water
Searles Liquid Potash 250 ml	1 bottle added to either mix above	500 ml added to either of the above

Micro Dosage rate breakdown based on watering frequency.

Fertiliser	Daily	Every Other Day	Weekly (Standard)
Thrive All Purpose	250 grams to 1000L water	500 grams to 1000L of water	1kg to 1000L of water
Hortico All Purpose	250 grams to 1000L water	500 grams to 1000L of water	1kg to 1000L of water
Searles Liquid Potash 250 ml	add 1 bottle to either mix above	1 bottle added to either mix above	500 ml added to either of the above

* **Every Other Day** is rotation between one day fertilising, one day straight watering depending on weather conditions.

Thrive and Hortico All Purpose fertilisers are a generic balance all round product that allow multipurpose use around the gardens. A 1kg box of either product makes 1000 litres of fertiliser.

I use Searles Liquid Potash added to either the Thrive or Hortico mix from the start of Autumn through to the end of Spring to induce the colouration of the Alcantarea for the start of Winter. For the Summer period I use the straight all-purpose mix to induce growth.

If you are growing Neoregelia or other highly colourful bromeliads my recommendation would to include potash all year round to ensure they are at there best.

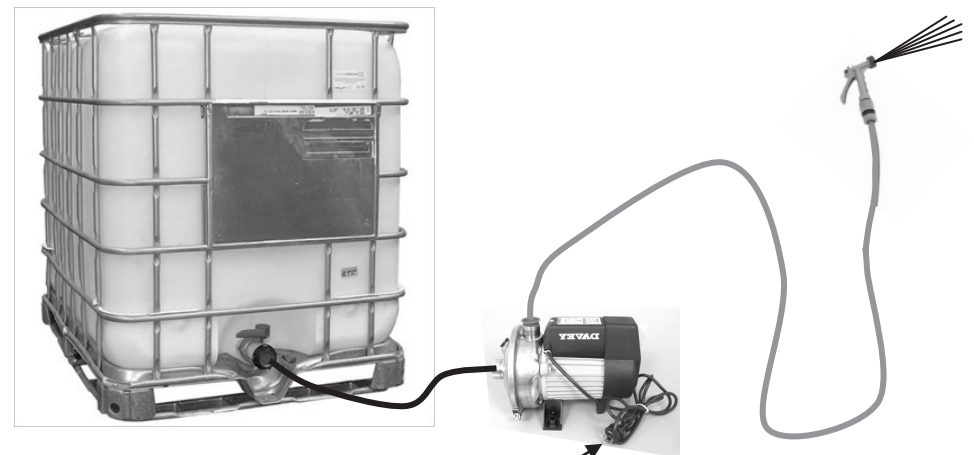
You can also add tonics such as fish emulsion, seaweed extracts to the mix.

Mixing fertiliser is simple by adding the quantity to a bucket of water and pouring it into the tank. Turn pump on and circulate for 10 to 15 minutes with hose at the top of the tank.

A 1000 litre tank of mixed fertiliser dependant on size of collection or gardens can last up to one to three waterings.

This works for me and no responsibility or liability will be taken for any damage occurred as this is my perspective and proven method for me that I use.

Cheers
Mitch



Pump with electrical power supply lead

Open Popular Vote

1st	Helen Clewett	<i>Cryptanthus bivittatus</i>
2nd	Keryn Simpson	<i>Aechmea</i> 'Burning Bush'
3rd	Dave Boudier	<i>Neoregelia</i> 'Wild Rabbit'

Tillandsioideae

1st	Keryn Simpson	<i>Tillandsia</i> 'Fuego'
2nd	Helen Clewett	<i>Tillandsia</i> 'Yabba'
3rd	Dave Boudier	<i>Tillandsia</i> 'Califano'

Decorative

1st	Keryn Simpson	'Thirsty'
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Judges Choice

1st	Helen Clewett	<i>Cryptanthus bivittatus</i>
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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.