

Coffs Harbour Group NEWSLETTER No.146: May 2020



2020 COMMITTEE

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Keeping in touch through sharing our gardens

NSW is doing really well moving steadily away from the grip of COVID-19 towards the time when we can resume normal interpersonal and social interactions. Meanwhile, we have been able to enjoy wonderful sunny autumn weather to tend to our gardens. Members who live near country damaged by bushfires will have noticed the emergence of regrowth on many species.



Epicormic shoots on Eucalypt species

Barry Kemp: Asteraceae

The plants loosely referred to as "daises", but more correctly the family Asteraceae, is a group of around 25,000 species, with at least 1000 in Australia, including many introduced ones.

The family was previously called the Compositae, because what at first sight appears to be one flower is actually many small flowers growing from a common receptacle in a composite arrangement. These individual flowers (florets) have five petals joined into a small tube. In some cases, one of the petals is long and much more prominent than the others.



Brachyscome multifida is fairly hardy and grows quite well in our region. It flowers almost continually and is easily propagated from cuttings. The outer florets, with prominent purple petals are called *ray florets*. The florets grouped in the centre, each lacking rays, are often called "*disc florets*", in this case all are yellow.

Hypochaeris radicata (commonly called Flatweed or false dandelion) is included for comparison as an example of species with only ray florets. Many introduced species have flowers of this type.

Rutidosis heterogamma is a rare local species with only disc florets, but the tubes are goblet shaped and with five teeth. It can be grown from seed or cuttings and I have been introducing it to the Botanic Garden heath-land beds in small groups, which are easily looked after.

Jan Whittle: Who lives here: insect or spider?

Can anyone identify the architect of this cosy nest/cocoon created in my native hibiscus 'Barambah Creek'?



(L) the mystery cocoon/nest; (M) Ero aphana (Pirate spider); (R) Levon Biss's Dung Beetle

Interested in Insects? I recently came across the macro-photography of Levon Biss. Check out his amazing images at http://microsculpture.net/ and http://microsculptur

Sue MacIntyre: Take a stroll through the Botanic Garden and experience Ylang Ylang fragrance.

As you walk down the main Garden path, past the Coastal Heath Garden experience the wafts of an exotic fragrance. This fragrance comes from the *Cananga ordata*, Ylang Ylang tree, nestled in the Queensland Garden. A tropical evergreen belonging to the custard apple family, native to South East Asia (Philippines, Malaysia and Indonesia) and tropical Queensland.

The flowers constantly release perfume: daytime release is said to deter pathogens and predators; at night, a stronger perfume attracts Geometer Moth pollinators. After fertilization clusters of small green fruit ripen to a deep purple. They are said to have a tart taste and are not eaten often. The Garden tree, according to long time Garden staff, has never been seen to set fruit.

Once the tree reaches four years of age it matures from flowering twice a year to flowering all year round. Notice the green to yellow ribbon like petals among the drooping branches; these are the flowers; clusters of pale green opening buds through to the mature golden yellow flowers. These flowers are gold to the people of the Comoro Islands (Indian Ocean off eastern Africa) because of the fragrant oil valued worldwide.



In Comoros, oil distilleries are home-owned. Family and workers pick the mature flowers in the early morning (when the oil content is at its highest) and must distil within two hours of picking. Flowers yield the most oil from May to June. To yield 1-2 litres of oil you will require about 120 kilos of flowers. It is a complex oil with 161 individual compounds. The first distillation produces the aromatic essential oil, subsequent distillations from the same batch of flowers produce lower grade oils. The lowest grade being used to perfume soaps. It has also been used to flavour food and chewing gum. Medicinally it has been used for insect stings, and to ward off evil spirits.

European explorers discovered Ylang Ylang in the 1600s. The oil and perfume became very popular in Europe. Around 1783 Alexander Rowland, a barber, invented Macassar oil, a mix of coconut oil, Ylang Ylang essential oil and other oils. It was used to improve the lustre and growth of hair. It became so popular people used a decorative cloth for their chair tops to save them from staining. These cloths were called antimacassars. The oil was named after the Indonesian port of Makassar where the ingredients were sourced.

The first commercial cultivation of Ylang Ylang began in Manilla in the 1800's and by the 1900s it was cultivated on Comoros and Madagascar. In the 1920s Ylang Ylang oil was incorporated in Channel No.5. During the 20th century Philippine production declined and Comoros became the world's main supplier of the oil.

While Ylang Ylang oil brings an income to the people of Comoros the distillation process consumes wood and water. Past practices have led to the rapid deforestation of the island and high use of water. Since 1975 the European Union and private business benefactors have supported various programs to develop more sustainable production methods by working with the people of Comoros. This has involved a German company developing over a period of three years a hybrid stove, engaging young Comoros men in making biomass bricks from waste materials as dead flowers and cardboard to reduce the use of timber to fuel the stoves, training landowners to maintain tree nurseries of fast growing species that serve to reduce soil erosion on their cleared land and create a sustainable source of timber for future use in stoves and reticulate water used in the distillation process.

When you are next in the Botanic Garden enjoy our specimen of the Cananga ordata.

References:

Exploitation of the Ylang Ylang flower in Comoros, Apr 15, 2019 - Uploaded by Commission de l'océan Indien COI – IOC Mahr Susan, *Ylang Ylang-Cananga ordata,* University of Wisconsin-Madison, 2008 International Trade Centre, *A review of Ylang Ylang Oil Production from Comoros.*

Rob Watt: Filling one's time during self-isolation

Let me make the confession at the beginning – I love this period of self-isolation. Since around March 20th when we were ordered to stay home and all my activities at the Botanic Garden came to a sudden end, I have left the property only three times. The first time was when my whipper snipper needed attention; the next to attend for a medical procedure; and finally, to attend a fire brigade callout. In the meanwhile I have been gardening.

Not exclusively gardening, just mostly. I have also cleared up all of my podcasts that were multiplying at a huge rate pre-Covid19. I have got rid of those that were a chore to listen to and am left with ones I really enjoy. I have not read all the books that I have to read beside the bed but I don't feel as guilty now as I did before and if I didn't read them before I die I won't feel bad. And that leaves gardening.

My gardening on this site began seriously 12 years ago. Right from the beginning I set out to keep clear that which was clear when I bought it and that has been an ongoing task. Then, about 4 years ago I decided that I would clear the dense lantana from my fence-line down to the river for most of my property. Within a year using the tractor and the assistance of a neighbour the fence wire was removed and the task was achieved. But, needless to say, while I kept the paddock mowed, the other side continued to grow and I was again faced with shoulder high grass and weeds on the other side. So, one of the tasks I set myself in the early days of self-isolation was to get this grass down leaving only the remnant rainforest trees and do it in a way that I could keep it down with period mowing with either the whipper snipper or self-propelled mower.



That left me with two other tasks to do. The first here was to bring back to original condition a number of the gardens around the house as well as finally finishing related jobs. While weeding was probably the most time-consuming here, there were numerous paths that needed to be gravelled and steps built to finish the project.

The second task was to return to a gully that had been originally densely filled with lantana and that I had cleared with the assistance of the tractor and in which I had plans for an arboretum. I had periodically returned to it over the last few years and kept the lantana at bay and had planted a series of trees that I wanted to grow including a number of red cedars and a variety of Araucarias including the Hoop pine and the Bunya.

So how have I gone? The paddocks are park-like. This is probably because I employ a young neighbour with the task of doing it and he keeps his eye on the tasks to be done and does the mowing as it is needed. I can claim no credit for this but have the satisfaction of making everything I do look good.

My first job was to get to and using the whipper snipper, get 3-4ft high grass down. I had to be a bit careful in spots because I have progressively planted trees. In one stretch I used little lilly pillies that I found on the edge of the river in gravel as my source. I think they are *Syzygium smithii*. My plan for a uniform stretch of trees has

not materialised. Planting them on the outside of the fence but within cow-reach, I have found that some grew quickly and soon were too tall for the cows to reach while others were slower growing and the cows have tended to keep pruned.

However, in another stretch where a flood in 2009 had eroded a fair bit of the bank, I needed a quicker growing tree. As luck would have it our community of Kalang was celebrating our 100th anniversary and one of the tasks of the fire brigade was to clear the gutters of the Hall. I witnessed hundreds of little silky oaks (*Grevillea Robusta*) being cleared out and thrown down to the ground. Rescuing about 40, I planted them and they have been a great success. The cows totally ignored them and now they look majestic reaching about 5-6 metres tall.



(L) Silky oaks; (M + R) Areas cleared for Arboretum

In other parts of this area, particularly where the house overlooks the river bank, I have planted a series of the trees that are either endemic like red cedar, or that I feel will look great in 50-60 years – like the Hoop or Bunya pines. While privet is not a real problem on the property, I have been careful to ensure that I get rid as much as I can and allow the tree ferns to push through the understorey. Judicious pruning of the pioneer species like the *Callicoma* and *Ficus coronata* (Sandpaper fig) have opened the canopy and while allowing the light in has also allowed the pasture grass to enter and is more easily controlled by mowing.

The next task was to start work on getting the house garden under control. Weeding is a constant but so is replacing borders and refreshing the gravel on the paths. Here luckily I have the river running through the property and am able to get relatively small amounts for these tasks. I am also beginning to re-evaluate some of my original choices of plantings – like some of the rows of prostrate grevilleas – and am now replacing them with more individual specimens that I would like around. I am also seriously creating a bed of Pigface (*Carpobrotus glaucescens*) under the house as a ground cover. I have found it relatively easily done. I let it grow and extend over the edge onto the gravel path in the sun. If I leave there for 2-3 months, it will root but can be easily cut and placed under the house where it adapts to the new light level.



(L) Pigface under the house; (R) Pigface patch being trimmed

The gravel is also very handy when I now wish to finish new pathways. However I have also found that while the last time I spent any real time in bagging and getting it back to house, now just a few years later I can only manage about half the amount I use to be able to do.

Finally, I have returned to my gully and the prospective arboretum. The red cedars have shot up. This was a surprise because in the few years after we bought part of the property – in the 1980s – I planted a large number of red cedars in the forest. I kept rough track of where and over the years they have survived but not

done spectacularly well. But where I planted in open ground and kept weed-free, they have fired ahead. I should have been more careful all those years ago. Fear of the tip moth kept me from cultivating too much but it has meant I have lost all that time.

I am looking carefully at the lists of rainforest trees from this area and am now being far more judicious in my selection. I still will include trees from southern Queensland if I like them but also have my list of trees from this area that I search for at the Spring and Autumn Plant Fairs.

Jan Whittle: Coastal Carpet Python (Morelia spilota)

Recently, I was inspecting a *Murraya paniculata* that had grown rather too close to the western side of my house when a movement above my head made me look up ... a large python was in the process of moving off the roof and into the shrub. Riveted to the spot, I realised most of the snake had been in the foliage all the time and yet I had not seen it, so brilliantly camouflaged. My initial alarm turned to fascination as I watched this beautiful reptile very slowly make its way to the ground, under the stairs, and finally to another part of the garden. Despite its size and weight, it made no sound as it moved across the dry leaf litter. I had not seen a python on my property before.



The python was the fourth snake I had come across in my garden in the past two weeks: a juvenile black snake (?red-bellied black) sunning itself on leaf litter, a thin slate-grey (?whip) snake crossing a garden path and a dark coloured snake near the side of the house moving at lightning speed.

Perhaps it is this extended time of warm dry weather that has brought these reptiles out? Needless to say, I am now careful to wear boots, long pants, long-sleeved shirts and gloves when gardening!

Editor: Contributions to the June Newsletter can be sent to jan64garden@gmail.com