MEPA NEWS

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President's note

Sometimes I forget just how magnificent this mountain life is. Having just returned from a few months away in the bush, I realised, yet again, that this is probably one of the best places in the entire country for native birds and all the delights that they bring. After nearly 17,000kms of travel across southern and western Australia there was nowhere to compare with the diversity of species we get here on the Mountain. Of course, there are places that will periodically explode with birds and many places that have amazing diversity, but there are few places that have such a consistent array of birds – from small to large – all year round. Gotta go. The Paradise Riflebird is up to something in the tree just outside …

Cycads

These ancient plants have been on earth for about 240 million years and it seems that in that time they have changed very little.

They belong to the same class of plants as the Hoop Pine – the Gymnosperms. Their glory days were actually during the Jurassic era – dinosaur times – when they dominated vegetation on earth. They are dioecious which means that male and female reproductive organs are on separate plants. These are contained in cones, the male cones being thinner than the larger female ones.

The species seen in these mountains are:

- *Macrozamia lucida* – this one has shiny leaves.
- *Macrozamia miquelii* – this one has spines at the base of the fronds.
- *Lepidozamia peroffskyana* – this one is named after Count Peroffsky, a benefactor of the St Petersburg Botanic Gardens during the time of the tsars and is common in certain areas of Mt Glorious. (Bill and I actually went to those gardens to look for it but the people there had no knowledge the plant. We think it might have been lost during WWII as many plants were removed by the botanists to protect them from destruction during the siege of that city, called Leningrad at that time.)

Lep. peroffskyana – Northbrook area

They are pollinated by beetles, in particular the type known as weevils. The male cycads shed masses of pollen when mature and at this time both male and female cones become warm. This heat is thought to aid the process of pollination. The female produces large seeds with a bright orange covering which is toxic so beware of eating it although aborigines had worked out a way of detoxifying them. The seed coats are a good source of nutrients and in spite of their toxicity animals such as possums, bandicoots, wallabies, kangaroos, wombats and native rats feed on them.

All cycads have coralloid roots which are specialised root structures that grow at the base of the plant and contain cyanobacteria also called blue-green algae. These bacteria fix nitrogen from the atmosphere which is made up of about 78% nitrogen but is in a form that plants and animals can't use. Legumes like beans have a similar relationship with a different bacteria. If you pull up a bean plant you can see the nodules on the

roots. This is a symbiotic relationship as both plants and bacteria benefit. It is thought that cycads developed this relationship when they first evolved and it has assisted in their long existence on earth during great changes in the planet's climate.

It is to be hoped that these wonderful plants survive future climatic changes as successfully as they have those in the past.

Maggie Scattini

Q&A

Question: "I'm after a few tips on how to protect new plants from being dug up by nasty little beasties. I planted a dozen hoop and bunya pines a few weeks ago on a slope that's mainly weeds, and something over the last few nights has dug them all up and chomped on the roots and I doubt they will survive. Feeling a bit disenchanted right now!" Anon.

Answer: "It's probably bandicoots (or maybe something else). I think they are attracted to the worms or whatever that come when the new plants are watered. The best way is to surround each plant with rocks or make little wire cages with a bit spread out at the bottom and peg them down carefully as things can dig underneath. These are better than tree guards because the wind blows through them. Tree guards tend to blow away."

Maggie Scattini

Know Your Natives

Golden Pea Tree (*Daviesia arborea*)

This plant is an attractive small tree or shrub growing along the roadside between Mt Glorious and Mt Nebo; a location which provides the dappled shade and well drained conditions that it needs to flourish.

It has an attractive growth habit with willow like leaves on weeping branches off a furrowed trunk. It can resemble a wattle until the long sprays of fragrant, yellow pea flowers appear in Spring through to Summer.

These are followed by triangular shaped seeds which may need some heat treatment to germinate. Propagation is worth a try as it would make a good garden plant.

Wendy Lees

Editor's Note: This plant can be purchased from some local nurseries. Try Kumbartcho Nursery - 3264 3953 - or the Paten Park Native Nursery (formerly Greening Australia Nursery) - 3300 6304 - at The Gap.

Bridle Veil Orchid (*Dockrillia teretifolia*)

This beautiful orchid is found throughout Brisbane Forest Park, particularly on Hoop Pine trees. The terete leaves [i.e. long and thin like a rat's tail] can easily be seen hanging from the branches and in spring the plant will be covered in masses of white flowers. It prefers moist habitats on rain forest trees, along streams in moist gullies, and along streams. This plant is often confused with *Dockrillia dolichophylla*. *D. teretifolia* has zigzagged stems producing a bushy outline while *D. dolichophylla* has straight stems with curves producing a more slender outline. *D. dolichophylla* flowers later than *D. teretifolia* and the flowers are cream to yellow rather than white.

Roger Finn, KABI Orchid Society

Do your block!

Free bush care service

Would you like some assistance managing bushland on your block? Advice on weeds or advice on planting local native plants in your garden?

MEPA has a free service offering advice and information (supported by MBRC)

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