

# The Natural News

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# Plants of Narawntapu National Park

*Text and photographs by Philip Milner*

Narawntapu National Park has a rich and diverse flora which has affinities with the flora of south-eastern mainland Australia due to the park's location on the Tasmanian north coast on Bass Strait. The national park is an important location for the conservation of coastal heathlands as it is the only coastal national park between the Tamar estuary and Rocky Cape to the northwest. It also has extensive coastal scrub vegetation which extends the length of Bakers Beach eastwards from the mouth of the Rubicon River.

Two interesting plants found in the coastal scrub are the Tree Violet and the Small-leaved Clematis.

The Tree Violet *Melycitus dentatus* is a rigidly branched and spiky looking shrub which we observed along the track not far from the bird hide during our September outing. This plant was formally known as *Hymenanthera dentata* and an alternative common name is Spiky Violetbush.

It is not very common in Narawntapu NP and is usually seen in the coastal scrub vegetation well behind the primary dunes. As the common name suggests it is an unusual member of the violet family, Violaceae. It was flowering in September but the flowers are hard to spot initially, just tiny pale yellow bells extending along and underneath the branches. The small ovoid berries which follow the flowers are white with purplish spots or patches when ripe. Birds such as Silvereyes are the likely dispersal agents for the seeds.

The Small Leaf Clematis *Clematis microphylla* is a climbing plant which is much less common and more habitat specific than the Southern Clematis *Clematis aristata* which can be seen almost anywhere in Tasmanian forests. Clematis are petiole climbers where the "stem" of the leaf acts like a tendril and twists around

branchlets on other plants for support. *C. microphylla* has smaller flowers than *C. aristata* and they are more of a creamy colour although we were a little early to see it in bloom on the day of the outing. The fruits which develop later in the season have the feathery appendage typical of clematis and are much sought after by birds as a nest liner.

In Tasmania Small-leaf Clematis occurs only along the north coast and on Flinders Island but it is quite widespread on the mainland from Queensland through to Western Australia. It is mainly a coastal plant but I have seen it in the south-east of South Australia following the limestone inland as far as Naracoorte Caves, so it is likely to be found on limestone geology elsewhere.

One of the notable plants of the heathlands within the national park is the Slender Velvet Bush *Lasiopetalum baueri*. It is a small greyish shrub with narrow slender leaves and bears pendant dusky pink or sometimes white flowers with pointed petals, peaking in October.

*Lasiopetalum* species are in the Sterculiaceae family along with the Kurrajong trees *Brachybiton* spp. of New South Wales and Queensland and the exotic tree *Theobroma cacao*, our source of cocoa and chocolate.

There are four species of Velvet Bush in Tasmania, one is endemic but *L. baueri* also occurs in Victoria, New South Wales and Queensland. In Tasmania it is only found in a few locations along the north coast. At Narawntapu it only grows on the seaward facing headlands and slopes such as at Archers Knob and Badger Head so the park is a key location for its conservation.

Legumes have an important ecological role in the health and nutrition of coastal heathlands which generally occur on acidic soils of quite low fertility. They have the capacity to



Tree Violet or Spiky Violetbush *Melycitus dentatus* (formerly called *Hymenanthera dantata*).



Small green ovoid berries on the Tree Violet *Melycitus dentatus* are white with purplish spots or patches when ripe.



Small Leaf Clematis *Clematis microphylla*.



Seed heads of Small Leaf Clematis *Clematis microphylla*.



Slender Velvet Bush *Lasiopetalum baueri*.



Slender Velvet Bush *Lasiopetalum baueri*.



store nitrogen extracted from the air as nodules on their roots, thereby adding nutrients to the soil to benefit surrounding plants.

There are numerous species of legumes in the pea family Fabaceae in the heathlands of Narawntapu. The Running Postman *Kennedia prostrata* is a prostrate perennial with trailing stems growing up to a metre across and is a familiar plant to many of us. It has round, greyish trifoliolate leaves and relatively large bright red typical pea-shaped flowers with a yellow centre. The hard coated seeds are formed in pods which typifies the family. The durable seeds have the capacity to remain dormant in the soil for many years until an event such as fire triggers germination. There was a brilliant mass flowering of Running Postman across the Badger Head heathlands about four or five seasons ago following a management burn. However, it is a relatively short lived plant which becomes shaded out as other shrubs re-establish and is far less common on Badger Head than it used to be. Running Postman has a quite wide natural distribution in lowland Tasmania and in all mainland states except the Northern Territory.

The Common Wedge-pea *Gompholobium buegelii* is also found in the heathlands. The shrub is 30 cm high and slightly wider than high. It has small linear trifoliolate leaves and the flowers are relatively large and well presented, appearing a little like butterflies. They are (usually) a fresh light yellow colour and the flower bud and the underside of the flower are unusually coloured being grey to blackish. Following pollination it develops an inflated ovoid pod which is similar in colour to the underside of the flower. The generic name *Gompholobium* describes the pod: *gomphos* meaning club and *lobos* meaning pod.

Common Wedge-pea is quite widespread in coastal and lowland areas, particularly in the east. It also occurs in the south-east of the mainland, in Victoria and New South Wales.



Running Postman *Kennedia prostrata* is a prostrate perennial with trailing stems up to a metre long.



Common Wedge-pea *Gompholobium buegelii*.

# Course on Identifying Fungi in Scotland

*Robin Garnett*

How willing would you be to taste the “milk” that exudes from broken *Lactarius* gills?

This was indeed what our fellow fungi foragers did on a course that Phil Collier and I attended at Kindrogan Field Studies Centre near Pitlochry in central Scotland. We were surprised by how much tasting and smelling goes on when fungi enthusiasts identify British fungi. Chris Knowles, our tutor, smelled every fruiting body he collected: “Does it smell of fish? ...or coconut? ...or paint? ...or carbolic soap?” He used his tongue to test the viscosity of the cap and nibbled a tiny piece of each gill before wiping his mouth on a tissue.

Our eleven fellow course participants were all keen, knowledgeable amateurs; some were here for the fourth year running. Several worked for the National Trust of Scotland, one flew in from the Singapore Botanical Gardens,

whilst others, like us, were just interested in extending their mycological skills. We noticed that people in our group took particular note of the tree or shrub species near each fungus. They would often put a few leaves from nearby trees in their collecting pots to help with identification later on. For example, there is a beech bolete, a chestnut bolete, a pine bolete and an oak bolete.

Scotland was looking particularly beautiful in mid-October, with its fast-flowing rocky rivers and woods turning yellow, orange and red. We went to places we know from songs and stories: by Tummel, and Loch Rannoch, Aberfeldy and Killiecrankie. Each morning we set out with our baskets full of pots and brought back our trophies to the lab to identify in the afternoons and evenings.

If we came across an unusual species, too



Fungi foragers in action near Kindrogan Field Studies Centre, Scotland. Photo Robin Garnett.



We used foil to collect spores in the field of those species too precious to pick. Photo Robin Garnett.



A weighted pot over the fungus that had foil covering its gills. Photo Robin Garnett.

precious to pick, Chris would photograph it, then spread a piece of aluminium foil across its gills and wrap the edges over the cap to hold the foil in place. He would cover the fruiting body with a pot, weighting it down with a stone on top. An hour or so later, he would collect the foil and take it home to examine the spores without disturbing the fungus.

Back in the lab we would set up our spore prints. If fruiting bodies were a bit dry we would try to coax the spores out by supporting the cap over two glass slides, with the stipe hanging down over a beaker of water. The water helped maintain humidity around the fruiting body and aided the hygroscopic expulsion of spores. We then pulled out the reference books and microscopes, razor blades and stains to do the detective work needed to try to identify each species we had collected.

Phil and I were amazed to hear that there are over 12,000 species of fungi in Britain. There are also some excellent keys and monographs to help with the identification process. As in Australia there are some spectacularly coloured fungi and many, many small brown ones. And lots of them have common names, sometimes quite evocative common names: Plums and Custard, Elfin Saddle, Toad's Ear, Destroying Angel. It was fascinating to see some of the fungi that are parasitic on other fungi. Tiny



Collecting spores of *Amanita muscaria*, Fly Agaric, on two glass slides over a beaker of water. Photo: Robin Garnett.



pale Silky Piggyback, *Asterophora parasitica*, were growing in the decomposing, blackened remains of large *Russula nigricans*, and the *Cordyceps*-like Drumstick Truffleclub *Tolypocladium capitatum* were growing on the underground false truffle, *Elaphomyces granulatus*. We found people, on the whole, shied away from keying out *Inocybes*, *Entolomas*, *Cortinaris* and *Hebelomas* to species level as these have a reputation for being difficult.

We rashly said we would have a go at identifying *Hebeloma* species, little realising that the 35 British species have very subtle microscopic differences, all described in a recent 1200-page monograph. Everyone brought us their *Hebelomas* after that. First we needed to smell them: could we detect a sweet smell, radish or marzipan? And were watery droplets emerging from the gills? Next we tested the spores with Melzer's reagent to see whether there was a dextrinoid reaction that turned the spores

reddish brown. After that we had to look to see the size and shape of the spores. Then we looked at the cheilocystidia which grow only at the bottom edge of the gills: were they like skittles or worms? And were the caulocystidia on all or just part of the stipe? I won't go on with more details but suffice to say that we came to understand why people in our local Hampshire Fungi Group avoid identifying *Hebelomas* if they can.

At the end of each day we all took our identified fungal specimens with their name tags to a display room, where we arranged them by genera. By the end of the week, as well as some wriggling maggots, there was a magnificent collection, from enormous *Boletes* and *Lactarius* to minute *Galerina* and *Mycena* species.

The course was inspiring and educational. We recommend it to anyone fortunate enough to be able to spend a week in Scotland in October.



*Asterophora parasitica* growing in the decomposing, blackened remains of large *Russula nigricans*.  
Photo Phil Collier.



*Helvella lacunosa*. Photo: Phil Collier



*Cantharellus cibarius*. Photo: Phil Collier.



*Gomphidius glutinosus*. Photo: Phil Collier.



Drumstick Truffleclub *Tolyptocladium capitatum*. Photo: Phil Collier.



The Birks near Aberfeldy. Photo Robin Garnett.



# Observations of Yellow-tailed Black-Cockatoos in Westbury

Martha McQueen

When we moved to Westbury 30 years ago, one of our first thrills was experiencing Yellow-tailed Black-Cockatoos flying close overhead amongst the silver banksia *Banksia marginata* we were walking through at Sisters Beach. Fast forward a number of years when we started noticing them by their characteristic screeching as flocks flew high overhead in Westbury on their journeys to and fro.

It was only as our own banksias matured that we started experiencing their feeding regimens close at hand, maybe six or so at a time, with one as the lookout. It was not always their screeching that alerted us, but often a contented murmuring as they feasted which drew attention to their presence. We noticed this amongst the pine trees near the Recreation Ground and at the Town Common, in addition to hearing them in various other locations around the town. Occasionally they would venture further inside our property, to our Willow-leaved Hakea *Hakea salicifolia* to continue their munching.

So it went, with regular visits when the flowers were just right. But this year, in mid-August, for a two week period, we were stunned when a particularly large flock of 30+ swooped by. Most mornings and evenings they would appear again, making their noisy rounds in the nearby community—pine trees, banksias and hakeas. Our own banksia on the nature strip had been removed, but that didn't stop them. Into our property they came, landing in our small orchard and feasting on the ground and in the fruit trees. We had not seen this behaviour before and were intrigued. What were they feeding on? Since the cockatoos feed on 'fat white grubs found beneath the bark of eucalypt and other trees', could there have been grubs lurking in the ground of our orchard?

Why such a huge flock flying so close to

the ground? And why for this period of two weeks? These were observations shared by many others in our community and remarked upon because of the size of the flock (large for Westbury) and their continued presence for this particular fortnight. One close neighbour, in particular, remarked on the size of the flock that had invaded his backyard tree (a hakea we think). This had been an annual visit, but not by a flock of that size.

I did find an article in *The Courier (Nature Notes: More black cockatoos in Ballarat* by Roger Thomas, dated 11 August 2016) about a large flock (250+) that had descended on Creswick (near Ballarat) the previous month. The article states: *Many local pine plantations have been harvested in the last 10 years or so, leaving a reduced food source while the next generation grows. This may be why the cockatoos are being seen more often, seeking food in Ballarat's gardens and parks.*

Most of our neighbours speculated it meant rain or storms imminent, but we didn't see strong evidence of that. However, I did find some old information to indicate this is often the case from *A handbook of the birds of Tasmania and its dependencies* by Frank Mervyn Littler, F.E.S. a member of the Australasian Ornithologists' Union [now Birdlife Australia] published by the author 1910:

In some districts the Black Cockatoo is regarded as an unfailing herald of rain, for it then flies very near to the earth and keeps up a continuous screeching as it slowly proceeds through the thick forests to the lowlands. Not only during actual rainy weather does it fly low and screech continuously, but also at times when to an ordinary individual no rain seems imminent, it instinctively seems to know that a

change is pending, and the wet almost invariably comes within the next twenty-four hours. Usually during stormy weather the highlands are deserted for the low.

I have since done additional investigation on such web sites as “Birds in Backyards” and learned that “The favoured food is seeds of native trees and pine cones, but birds also feed on the seeds of ground plants. Some insects are also eaten.”

According to the Australian Wildlife Conservancy “habitat fragmentation and loss is a major issue for this cockatoo, as land clearing contributes to loss of food plants and nesting hollows”. It also mentioned that black cockatoos are “seasonally migratory to follow food sources”. These facts suggest that we will continue to enjoy visits from these magnificent birds and possibly see even larger groups and more frequent visits to our suburban food sources, especially before the breeding season. We will continue our observations to try to determine the additional influence the weather patterns might have.



Yellow-tailed Black Cockatoo extracting a grub from a forest daisybush *Olearia linata* at Birrallee. Photo: S. Lloyd.

## Plasmo - a vigorous fungivorous plasmodium

*Sarah Lloyd*

On 30 June 2018 I went for my regular afternoon walk to search for slime moulds when I noticed a yellow plasmodium glowing in the afternoon sun. It was about one meter from the ground and creeping up a standing dead blanketleaf *Bedfordia salicina*.

I took several photos of the fan-shaped front edge of the plasmodium which covered the southern side of the 15 cm diameter tree, and a couple more images that show the network of thick plasmodial veins that criss-crossed one of several patches of a copper-coloured, pored resupinate fungus on the *Bedfordia*. And, because it was only several hundred meters from

home, I continued watching and photographing Plasmo at least once a day until its last hurrah at the end of July.

After rainy periods the fan-shaped plasmodium spread out across the tree trunk, and the thick yellow veins made their way to the other patches of fungus, but during the week of cold, dry frosty weather the plasmodium contracted and darkened as it started forming a sclerotium. The next bout of wet weather got it going again—but not quite as I was expecting given the pattern of behaviour in the previous weeks.

A very small part of the plasmodium started

to move but a large part of it started to form sporangia (fruiting bodies) which gradually matured over the following days.

It was interesting to observe that active plasmodial veins were visible under the forming sporangia and that more of the plasmodium was heading even higher up the trunk. Another part of the plasmodium, a thick fan-shaped section, was concentrated on another patch of fungus about 20 cm above the fruiting bodies.

After watching the plasmodium for a couple of weeks, I was fairly sure the species was *Badhamia utricularis*, a species known to feed on fungi. It is particularly vigorous, especially in wet weather, and while elsewhere in the forest tiny patches of emerging *Physarum viride* were washed away by rain, the plasmodium I was watching absorbed the water and thrived.

The changeable weather and corresponding changing shape of the plasmodium continued, so by 28 July after yet more overnight rain I was expecting the plasmodium to behave as before and remain active. Much to my surprise, on the morning of 28 July, more sporangia had started to form about 20 cm above the first lot of (now mature) sporangia. This time it was clear that all the remaining plasmodium had concentrated to form these fruiting bodies as there were no signs of the active plasmodium anywhere on the tree.

For more photos of the plasmodium and developing and mature sporangia check:

<https://sarahlloydmyxos.wordpress.com/2018/08/06/a-vigorous-fungivorous-plasmodium/>



Yellow plasmodium on dead *Bedfordia salicina*.



Plasmodial veins on the resupinate polypore fungus.



Fruiting bodies starting to form.



## Walks and other events

Bring food, clothes for all weather, hand lens, binoculars, note book and curiosity.

**Sunday 6 January 2019 - Pine Lake and Rats Castle:** A wonderful summer walk in the highlands to observe alpine plants and insects. Meet 10:00am at the Pine Lake Nature Trail on Highlands Lake Road (A5) 17.6 km south of Golden Valley. We will walk to Pine Lake before heading 14.4 km south to the Rats Castle car park. Leader Sue Gebicki.

**Weekend 2-3 February 2019 - Rosebery area:** Kevin Dogrusever is organizing a weekend of activities. Possible places include Motezuma Falls, Williamsford old mining town and/or Mt Dundas that are reverting back to nature; Mt Farrell and Mt Read (1,000 year old Huon Pine). Arrive Friday evening, depart late Sunday or Monday. Please register via secretary Peter Lawrence.

Accommodation options:

- camp at Kevin's place in Rosebery (address details when registering) There are no facilities and usual camping in the wilderness rules apply, snakes present but no internet.
- Rosebery cabin & tourist park; \$100 double for cabin with on-suite, \$70 double for basic cabin, \$30 back-packer single rooms with share kitchen & amenities, powered and unpowered sites, phone 03 6473 1366
- Top pub, 8 Agnes St, Rosebery TAS 7470 phone (03) 6473 1351

**Sunday 24 February – Penguin Shelf** Meet at the Penguin Sea Scout Hall, Johnson's Beach Road, Penguin, next to the skate park at 9.50 am. Low tide is at 10.50 am. Please note that the rocks can be very slippery so wear safe footwear with good tread (which you don't mind getting wet). Thongs are extremely inadvisable. Leader Rod McQueen

**Sunday March 3 – Ferndene State Reserve and Frenchs Road Nature Reserve.** Meet at Ferndene Reserve, 116 Ironcliff Rd. at 10:00 am ( 6 km south of Penguin). From east or west take Bass Highway to the northern end of the Dial Range at Penguin. Exit the highway at South Road and continue south for 0.7 km, turn right into Sports Complex Avenue and follow for a kilometre to its junction with Ironcliff Road, turn left and follow Ironcliff Road to the carpark at Ferndene Reserve. Leader Richard Donaghey.

For the past 18 years Richard Donaghey has been studying the life histories of robins in Australia and Papua New Guinea. In spring 2018 Richard has been unravelling the breeding behaviour of Pink Robins by watching nests at Ferndene SR and FRNR. This walk provides an opportunity to learn where they nest, what type of nest they build and what are the roles of the male and female Pink Robins in incubation and care of the young. Ferndene is wet eucalypt forest with lots of different fern species and some special birds including the Beautiful Firetail, Bassian Thrush and Scrubtit. FRNR is also wet forest with White Goshawk, Satin Flycatcher and Olive Whistler.

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