The BowerBird Bugle

07 October 2016 Ken Walker (kwalker@museum.vic.gov.au) Museum Victoria. Edition 47.

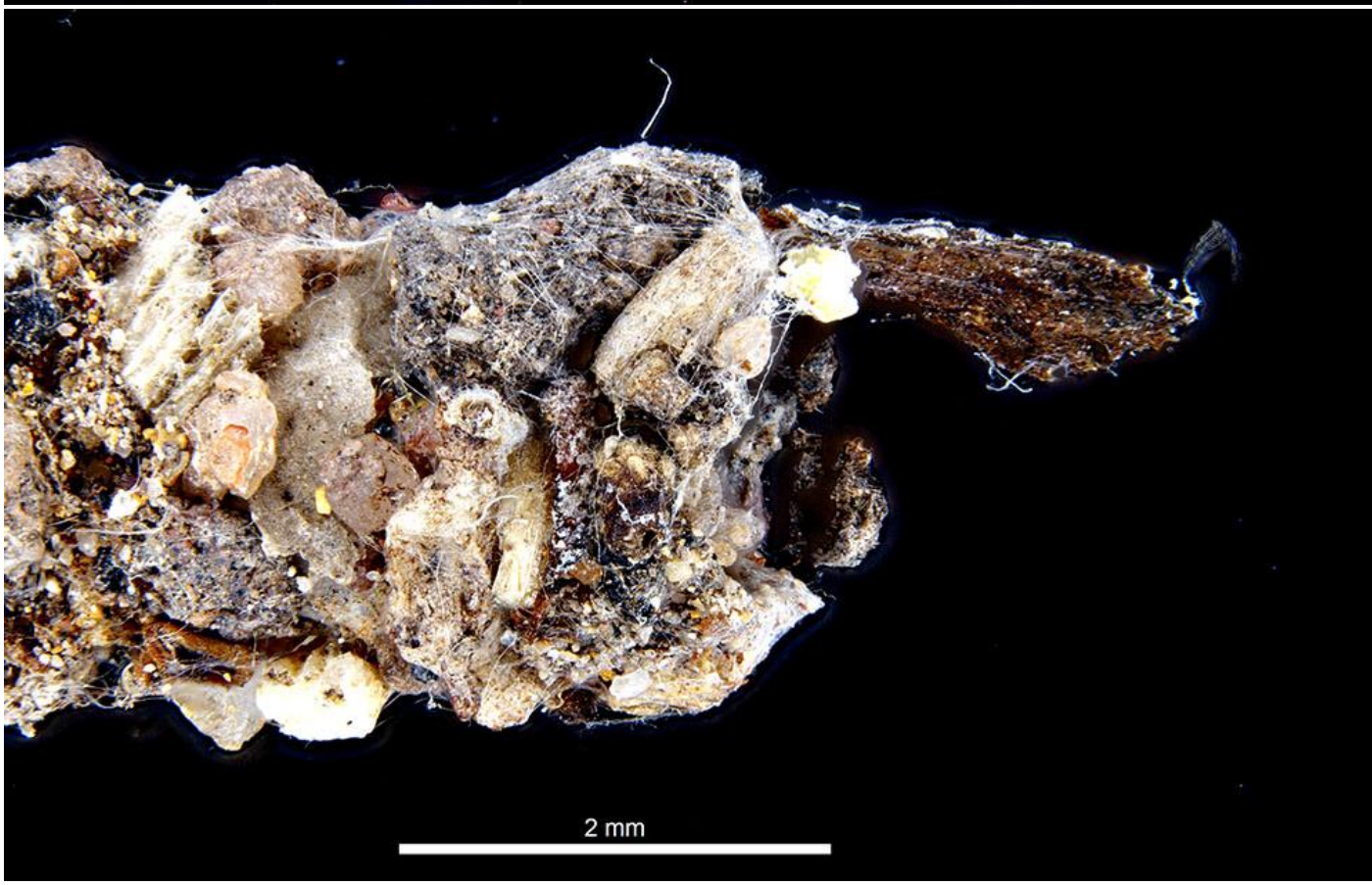
Hi All – Let's start with an update to the strange pebble-built shelters used by a species of spider in Emerald, central Queensland (a nuclear fall-out zone!). Laurence Sanders sent me some spiders and shelters which I have photographed. I then sent the specimens to the Washington, USA laboratory and they will soon run a DNA analysis of the sent spiders and compare the results with leaf curling spiders world-wide. The question to be answered is: Are the Emerald spiders the same species as the French Guiana species, the only other known species that also constructs substrate based shelters or is it a new species that shares the same behaviour with its South American relative? Science in the making and discovering more about our Australian fauna and where it fits with regards to the world spider fauna.

I took a series of high quality images of the spider shelters and the spider itself. I was particularly looked for evidence of silk on the outside and inside the shelter. Between Bugle editions, I have had a series of conversations as to whether or not these spiders are indeed re-using old psychid moth cases. So, I took images of a typical psychid case to compare. What do you think?


2 mm


2 mm


5 mm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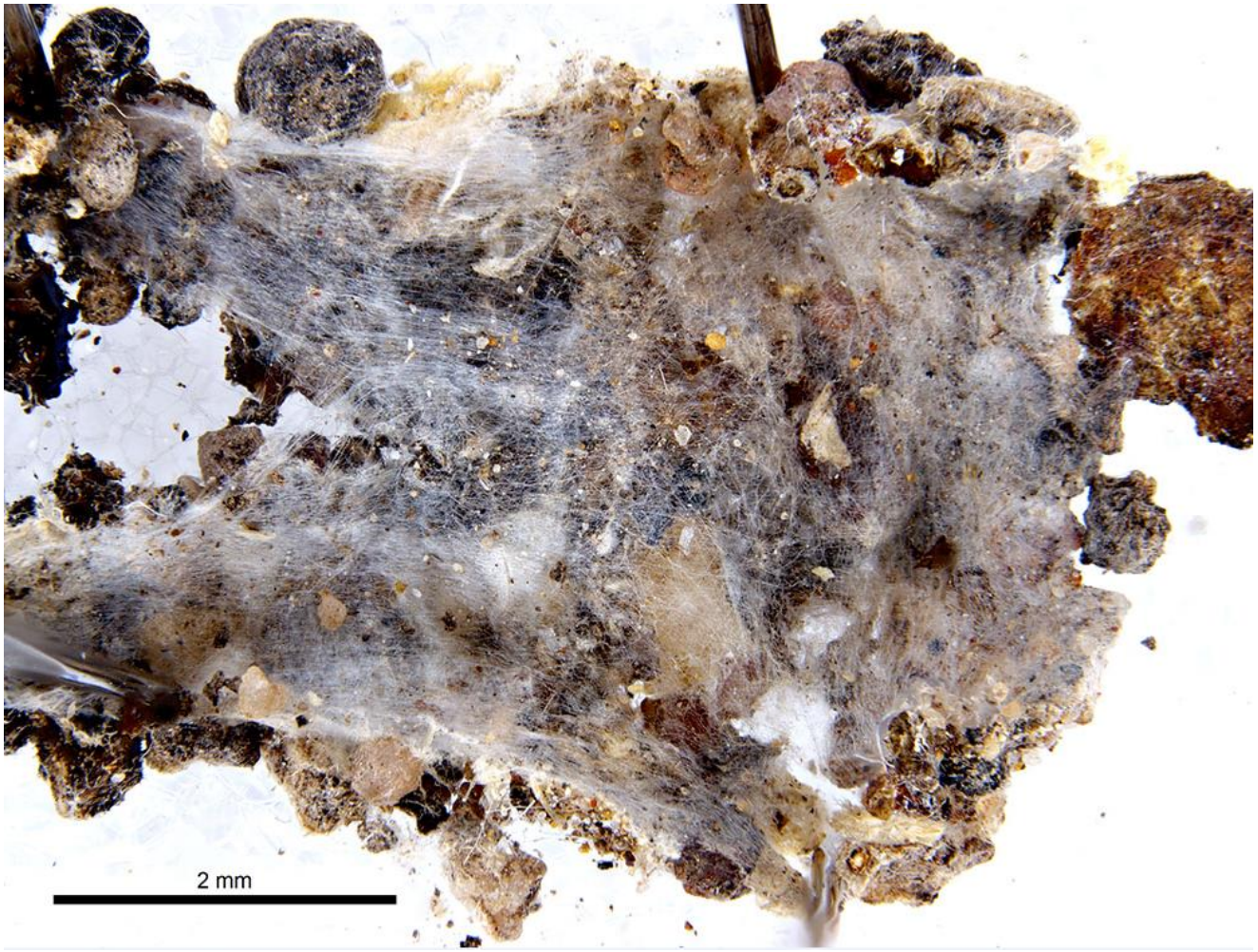
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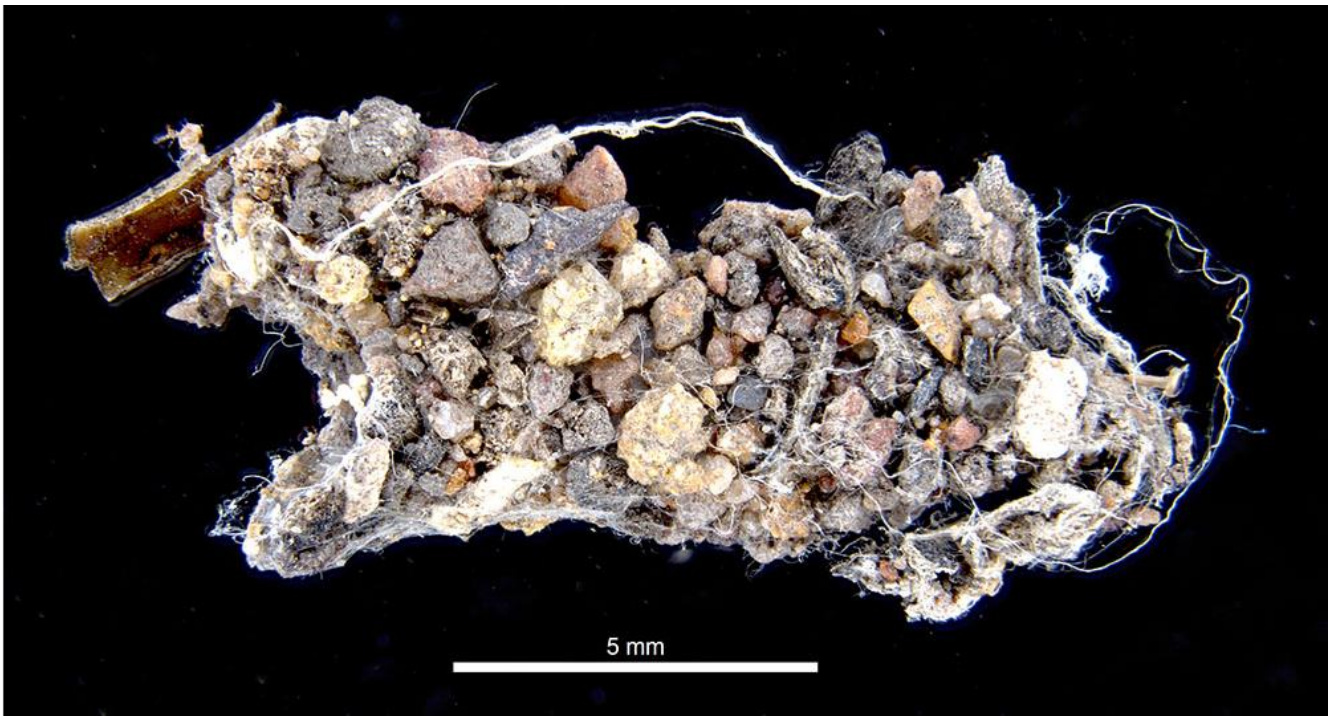
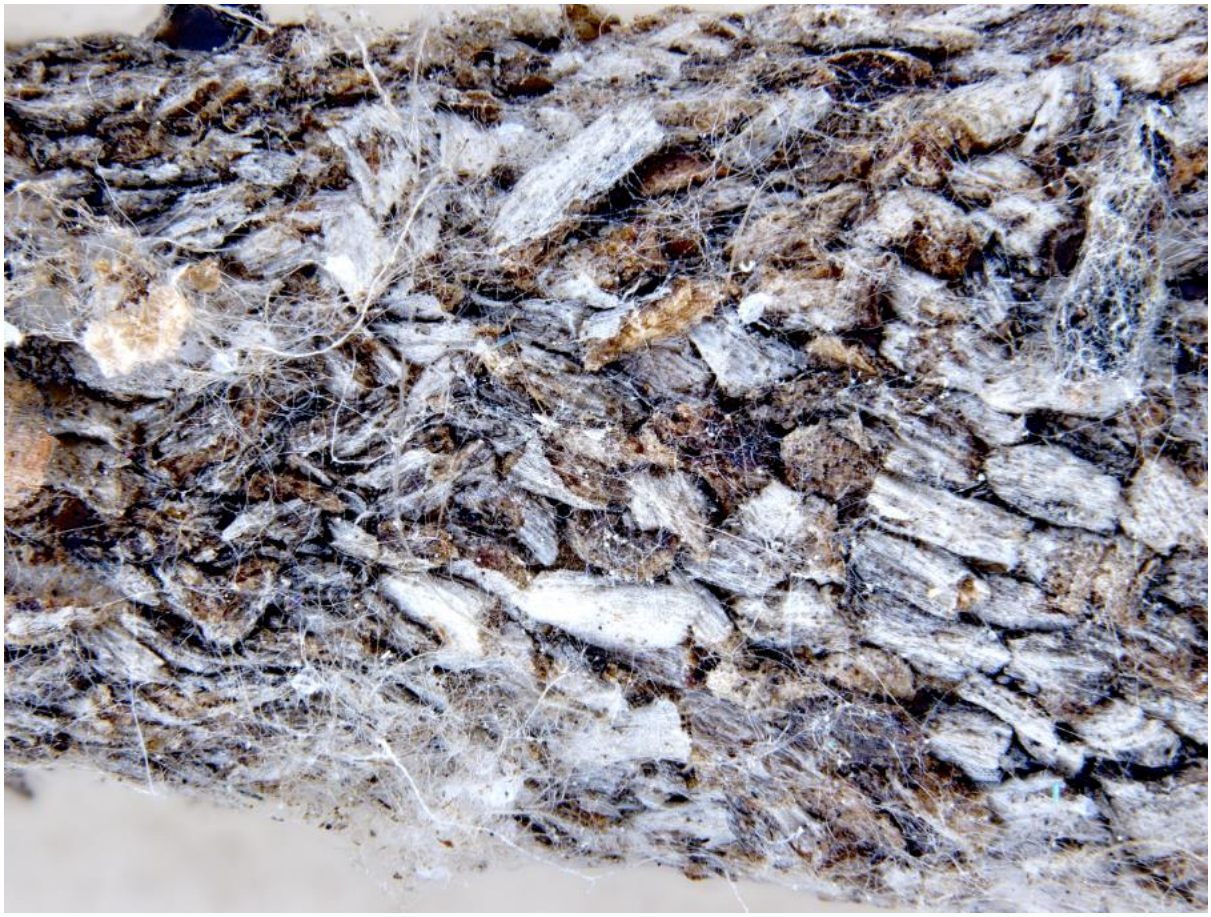

5 mm

These next two images are of a psychid moth case.

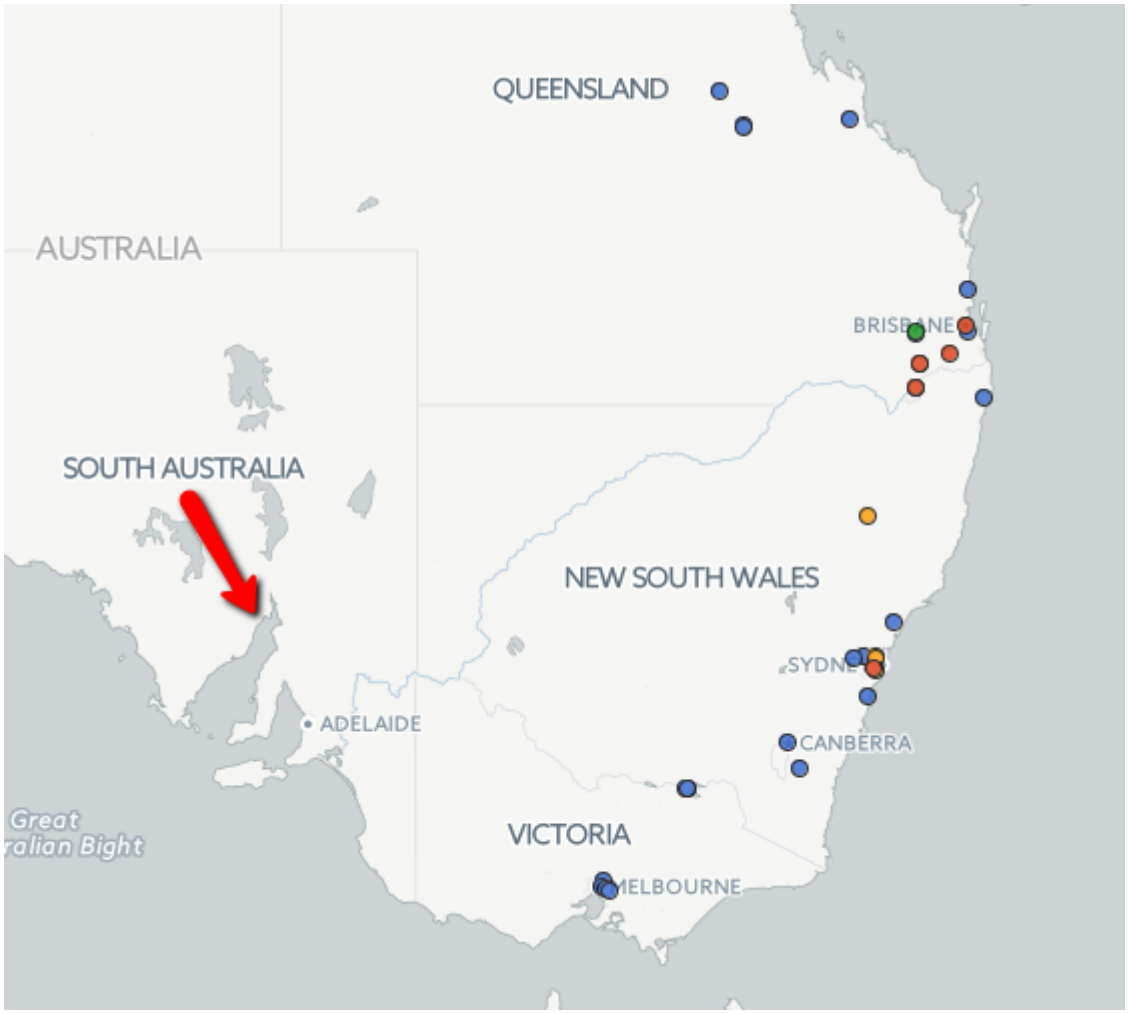


Notice the size consistency of the substrate pieces silked into the psychid moth case. Such consistency of size is not apparent in the spider shelter case but both shelters have copious amounts of silk on the outside of the cases. I'll update again when the DNA analysis has been completed.

The ever continuing spread of the South African carder bee.

Some will remember my story about the spread of the South African carder bee - *Afranthidium Immanthidium repetitum*. First recorded in 2000 near Brisbane, the species was next seen in Sydney in 2007. Since then, BowerBird records have expanded the known distribution of this species northwards to Emerald, Queensland and south to Melbourne. The blue dots on this ALA distribution map for the carder bee are all BowerBird records.

Well, BowerBird has now recorded this species in South Australia at Whylla (see red arrow) – that's quite a spread.



Remember, this species builds nests from plant fibres which it rolls into cotton-wool like bundles. It likes to place these wool like bundles inside sheltered places and in Queensland the bee is called the “Meter box bee” as its nests are often found inside power boxes. The species also likes to nest in the running tracks of sliding windows so its spread is being assist by human intervention of transporting nesting material inside shelter boxes around Australia – now it seems to Whyalla, SA.

Below is a male specimen of the carder bee, identified by Dr Terry Houston, photographed at Whyalla, SA. The date was 12 January 2015 so the species has been there for a while.

Afranthidium Immanthidium repetitum Location: Whyalla, SA. Photo by Betty AN

Biosecurity records have become a strength of BowerBird over the past few years. The carder bee’s spread is one such case and of course the occurrence in Australia of the South Africa caffra praying mantis was first reported on BowerBird.

Livin’ high on the hog!

I had to laugh when I saw this image of a bee absolutely covered in pollen. It reminded me of the expression “Livin’ high on the hog”.

From the amount of pollen almost everywhere on this bees, it seems it has rolled around on the flower’s anthers and soaked up the “soooooooo gooooooooood” feeling.

The legs of this bee look full up to me so I don’t where this bee thinks it’s going to groom the pollen on its body down into.

The other expression that comes to mind is: “Your eyes are bigger than your stomach?” This is a spring bee (photographed 25 September) so it is probably just making up for time lost over winter.

Lasioglossum lanarium Location: near Gawler, SA. Photo by Frank Prinz

The fungal season is almost over but .....

Yes – the fungal seasonal for 2016 may be almost over but some fascinating recent finds have the Curator of Fungi, Dr Tom May, (Australia's expert) at the National Herbarium of Victoria excited.

Fungi: Basidiomycota: Agaricales: Cortinariaceae: Cribbea sp. Location: Redwood QLD Photo by Glenda Walter.

Tom commented: "Interesting sighting. There are not many photos of *Cribbea*. It is a truffle-like relative of *Oudemansiella*, recognised by the long rooting stipe, the brown colour on top and the white 'lamellae' that are quite irregular and anastomosing to form irregular chambers. There also seems to be a covering over the lamellae, at least when young. I wonder if it was growing with native vegetation, and if so, what type?"

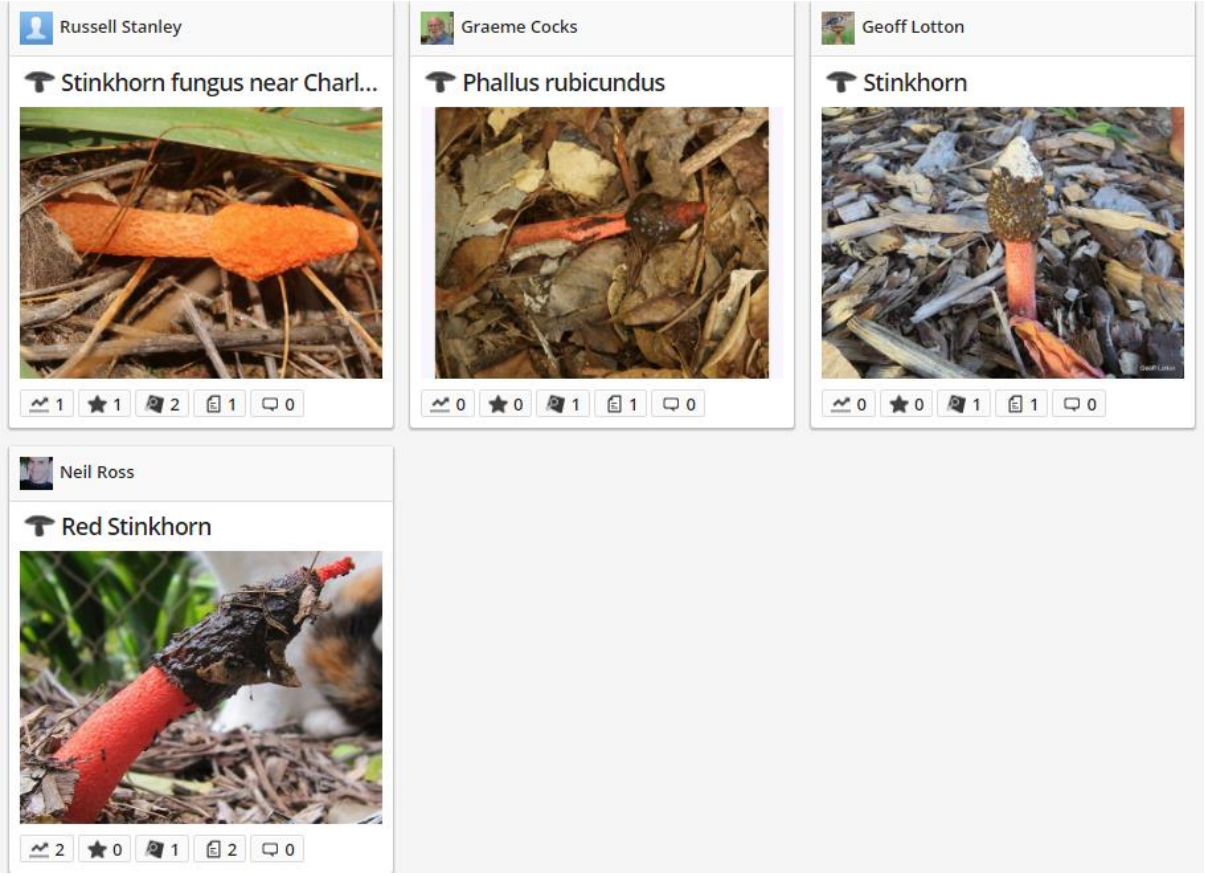
Fungi: Basidiomycota: Agaricales: Cortinariaceae: Cribbea sp. Location: Redwood QLD Photo by Glenda Walter.

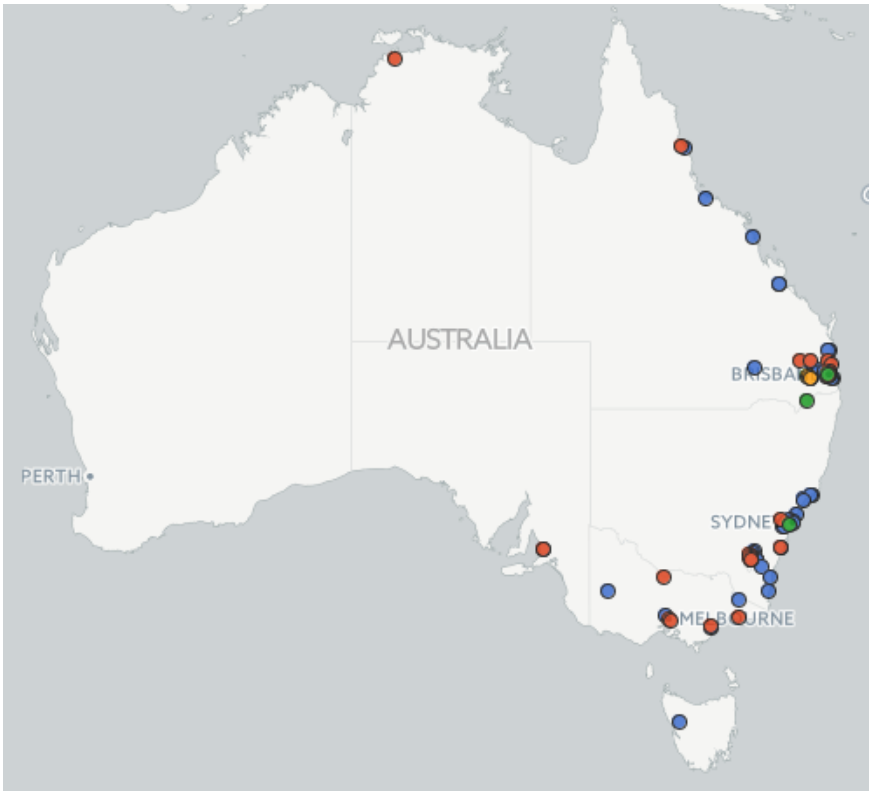
Glenda provided Tom with a habitat update: ““the general vegetation would be described as remnant dry rainforest. I seem to remember that there were no gumtrees about, and there were some magnificent whitewood (*Atalaya salicifolia*) trees, but just exactly what was near the car I don't know”.

BTW- I checked on ALA and Tom was right - there are no photos of *Cribbea* on ALA.

Another fungus that caught Tom’s eye was the stinkhorn fungus *Phallus rubicundus*. There are 4 records of this species on BowerBird, but the latest record is the first for Victoria and this is what caught Tom’s eye! The other three records are all from Queensland. The ALA distribution for this species shows

a much greater concentration of records north of Victoria in New South Wales and Queensland.





Phallus rubicundus Location: Nareewillock VIC Photo by Russell Stanley

Tom commented on this BowerBird record: “Interesting to get a sighting from Victoria. It’s been a very wet spring, so there are quite a few fungi around. This species is rare in Victoria, and apart from a few sightings in Melbourne in gardens, seems to be only north of the divide to the east of the state, or in Gippsland.”

The fungus appears to be used by humans in several ways: “In the Indian state of Madhya Pradesh, where it is known locally asjhiri pihiri, it is used by two primitive forest tribes, the Bharia and the Baiga, as a treatment against typhoid, and also by the Baiga to treat labour pain. The fungus is prepared by grinding and mixing with sugar-cake, and one teaspoon is administered three times daily. One study noted that mosquitoes, attracted to the smell of the gleba, perish after consuming it, and so the fungus may be suitable for further investigating as a biocontrol agent.”

Does that insect have four antennae?

Quite often, insects will present with a pair of white or yellow protrusions extending from their body somewhere. In the case below, the extensions appear to be protruding from the insect's head – almost like an extra pair of antennae. The answer is orchids. Sexually reproductive plants need an agent of transfer to get their male anthers from one plants to reach the female stigma of another plant – and insects make great transmission agents. Orchid play a range of "tricks" to entice an insect onto an orchid flower and then – WHACK ! They get hit with anthers that attach paired pollinia onto the insect.

Paired pollinia can occur on almost any insect and they can be attached almost anywhere on the insect's body. Below are a few examples from BowerBird.

Flower wasp male Tiphiidae Location: Zumsteins VIC Photo by Reiner Richter

Lasioglossum hiltacum Location: Ledcourt VIC Photo by Reiner Richter

Lasioglossum hemichalceum Location: Beechworth VIC Photo by Rudie Kuiter

Megachile sp. Location: Sunnybank QLD Photo by Jenny Tynne

Amegilla cingulata Location: Sunnybank, Qld Photo by Jenny Thynne

Leioproctus obscurus Location: Victoria Photo by Mitch Smith

Cleridae, *Eleale* sp. with pollinia on the *Prasophyllum spicatum* Location: Crib Point, Vic. Photo by Rudie Kuiter

Musca sp. with pollinia on the *Prasophyllum spicatum* Location: Crib Point, Vic. Photo by Rudie Kuiter

Female (top) and male (bottom) Bibionidae flies (*Dilophus* sp.) feeding on *Prasophyllum spicatum.* Location: Crib Point, Vic. Photos by Rudie Kuiter.

Homalictus punctatus Location: Crib Point, Vic. Photos by Rudie Kuiter

It took an expert to name this fly.

Reiner posted a most unusual series of images showing a fly that was half buried in a sand/pebble mixture and it was presumably laying eggs. The wing venation cannot be seen and the front of the head is almost featureless – except for the broad pale yellow colour and the almost hidden mouthparts. But what is it? Some thought perhaps a hoverfly (Syrphidae). So, I contacted one of the Diptera specialists at the Australian Museum (Dr Dan Bickel) who happened to have Dr David McAlpine standing next to him when my email arrived. David was able to name the genus and species as he had revised the genus in 2012. Signal fly - Platystomatidae: *Duomyia obscura*. The only biological data for this genus I could find was one species was “recorded as infesting eggs of marine turtles, but the species is not restricted to habitats of these reptiles.”

Duomyia obscura Location: Baw Baw, Vic. Photos by Reiner Richter

The bee with an orange bum!

To my knowledge, there is only one Australian bee with orange coloured setae on the terminal segments of the metasoma (in other words ... an orange bum!) Jean and Fred Hort happened to be at the right spot in-between showers of rain when the sun came out and bees began foraging and they photographed “The bee with the orange bum”.

Leioproctus Urocolletes rhodurus foraging on Stylidium confluens Location: Buntine WA Photos by Fred & Jean Hort.

Just look at the amount of pollen on the hind legs and other parts of the body – in particular the thorax.

BowerBird Excursion to Adams Creek Nature Conservation Reserve, Nyora 10 September, 2016

Adams Creek Nature Conservation Reserve is an island of over 400Ha of remnant plains heathy woodland surrounded by sand mines and pasture. Features include a moderately size swamp in the north (of about 2Ha), a dam just west of the car park and a disused railway line (abandoned only in the early 1990's). Although a lot of rain had been forecast by the Bureau for the previous 24 hours, less than that actually fell in this area of west Gippsland and, although puddles were around, the sandy soil had absorbed most of the water and the shrubs weren't even too wet. My forecast of requiring gumboots turned out to be unnecessary too.

Although the turn-off from the highway wasn't easy to find, three people from the Latrobe Valley and four from Melbourne met near the rendezvous point. The first thing that caught my attention was the bird-brained male superb fairy-wren observing its own reflection – just like the first time I visited.

Malurus cyaneus Reiner Richter

Richard Hartland had arrived early and already located some interesting plants and fungi, including one of the Banksia cone cups, *Banksiamyces toomansis*. These are grey-blue and grow stalks from the woody regions of an old cone, with young individuals still being very cup-like but the older ones appearing squashed. Like many in the group, I had not seen species from this genus before. There were also some other fungi that had us guessing, it was only on a return visit a week later that they were confirmed as a *Lichenomphalia* species and the strange buds of *Polyporus arcularius*.

Banksiamyces toomansis Richard Hartland

Lichenomphalia sp Torbjorn von Strokirch

Polyporus arcularius Reiner Richter

And below are some that we could readily identify. A common fungus on dead wood is the orange Pycnoporus coccineus, however this one had an unusual form because the trunk it had been growing on fell over and the fungus kept up its horizontal plate-like growth, so there are two stages at right-angles.

Resupinatus cinerascens Reiner Richter

Pycnoporus coccineus Reiner Richter

dam Torbjorn von Strokirch

After lunch we walked the 800m due north to explore the swamp. John Eichler found the rare, greenish-blue fungus Arrhenia chlorocyanea here last winter but we were likely to be too late this season for them. In the reserve in the 1990's he also discovered what was later described as *Hypocreopsis amplectens*, but unfortunately for us John was interstate so couldn't make this trip. Along the way I found the larva of a honeybrown beetle Ecnolagria grandis on a skeletonized gum leaf. This is a common species and I have often seen the adults but not previously photographed these black, hairy grubs.

Ecnolagria grandis Reiner Richter

Although the spring wildflower show hadn't really started, we saw several species in bloom including mistletoes, guinea-flowers, beard-heaths and an early prickly geebung.

Persoonia juniperina Ken Harris

Amyema pendula Reiner Richter

Initially at the swamp we didn't find much of interest and the group scattered a bit, almost losing each other among the tall *Juncus* rushes around the dry edge. A common Diplacodes bipunctata was the only dragonfly we saw, and my first for the season, but then a young, profusely flowering blackwood wattle *Acacia melanoxylon* attracted our attention. It hosted numerous flower spiders and even a jewel beetle (once again my first for the season). Shortly afterwards someone spotted a hole

surrounded by some soft egg shells, victims of predation. Inside the hole remained two in-tact, elongated plain white eggs with hard shells. Thinking turtle eggs were soft-shelled, among other considerations, we were unsure as to what they might be but after returning home several people worked out that they were indeed the eggs of the only local turtle species, the eastern long-necked turtle, *Chelodina longicollis.*

Swamp (northern edge) Reiner Richter

Acacia melanoxylon Reiner Richter

Chelodina longicollis Tamara Leitch

Melobasis sp Reiner Richter

Across the railway line the habitat was somewhat different. The forest seemed wetter, less sandy and heathy and more open. There were many bird-orchid leaves (but no flowers) – I suspect they were mostly that of the autumn bird orchid, Chiloglottis reflexa. Although we were lifting logs to find what lived underneath we didn't find many invertebrates (or logs, for that matter). In all, we found only one millipede, one scorpion

and no flatworms! The day was generally quite poor for invertebrates.

wood lice Carol Page

Paradoxosomatidae Reiner Richter

Ken Harris did however set up his light sheet for attracting insects at night, which was my first experience of this. Its a bit different to what I'm used to – which is wandering around the bush looking for things – here you just sit and wait for things to come to you. Although other insects are also drawn to the light, the most variety species are usually moths. I tried very hard to get a decent photo of the green midge and failed to get a good lateral shot of the wasp to see its abdomen.

Syneora mundifera Reiner Richter

Anemosa exanthes Reiner Richter

Chironomidae Reiner Richter

?Braconidae Reiner Richter

Even during the day the frog chorus was substantial at the swamp, where we heard five species, so it was not surprising that the dam was also very busy at night. As the light sheet was set up nearby some gumboot wearers snuck off and waded around trying to track down these elusive croakers, which is always relatively difficult despite their apparent numbers.

Crinia signifera Reiner Richter

Litoria verreauxii Tamara Leitch

Birds

Black-faced Cuckoo-shrike
Bronzewing sp.
Brown Thornbill
Golden Whistler
Grey Currawong
Grey Fantail
Grey Shrike-thrush
Kookaburra
Masked Lapwing
Pallid Cuckoo
Spotted Pardalote
Straw-necked Ibis
Superb Fairywren
Swamp Harrier
Wedge-tailed Eagle
Welcome swallow
White-eared Honeyeater
White-naped Honeyeater
White-throated Treecreeper
Yellow Robin
Yellow-faced Honeyeater

Plants in Flower

Amyema pendula
Dampiera stricta
Bauera rubioides
Hibbertia fasciculata
Hibbertia virgata
Acacia melanoxylon
Bossiaea cinerea
Melaleuca squarrosa
Glossodia major
Nemacianthus caudatus

Drosera auriculata
Tetratheca pilosa
Leucopogon australis
Leucopogon virgatus
Pterostylis melagramma
Pterostylis nutans
Persoonia juniperina
Urtica urens

Frogs

Crinia signifera
Limnodynastes dumerili
Limnodynastes peronii
Limnodynastes tasmaniensis
Litoria ewingi
?Litoria raniformis
Litoria verreauxii
Paracrinia haswelli

Fungi & Lichens

Amanita xanthocephala
Banksiamyces toomansis
Cladonia floerkeana
Cladia retipora
Coltricia cinnamomea
Coltriciella dependens
?Cortinarius phalarus
?Hexagonia tenuis
Lichenomphalia umbellifera
Pisolithus arhizus
Polyporus arcularius
Pycnoporus coccineus
Ramalina glaucescens
Resupinatus cinerascens

Insects

Order	Family	Species
Coleoptera	*Buprestidae*	*Melobasis sp.*
Coleoptera	*Tenebrionidae*	*Ecnolagria grandis*
Diptera	*Limoniidae*	*Dicranomyia (Dicranomyia) whitei*
Diptera	*Limoniidae*	*Symplecta (Trimicra) pilipes*
Diptera	*Limoniidae*	*sp.50*
Diptera	*Limoniidae*	*sp.51*
Diptera	*Limoniidae*	*sp.52*
Diptera	*Limoniidae*	*sp.53*
Diptera	*Pyrgotidae*	*Facilina commoni*
Diptera	*Pyrgotidae*	*sp.04*
Diptera	*Pyrgotidae*	*sp.05*
Hymenoptera	*Braconidae*	*sp.09*
Hymenoptera	*Formicidae*	*sp.10*
Hymenoptera	*Ichneumonidae*	*Netelia producta*
Lepidoptera	*???*	*Species 512*
Lepidoptera	*???*	*Species 513*
Lepidoptera	*Crambidae*	*Hellula hydralis*
Lepidoptera	*Crambidae*	*Scoparia protorthra*
Lepidoptera	*Geometridae*	*(Prasinocyma) semicrocea*
Lepidoptera	*Geometridae*	*Aeolochroma metarhodata*
Lepidoptera	*Geometridae*	*Anachloris uncinata*

Lepidoptera	*Geometridae*	*Chloroclystis testulata*
Lepidoptera	*Geometridae*	*Chrysolarentia severata*
Lepidoptera	*Geometridae*	*Dichromodes atrosignata*
Lepidoptera	*Geometridae*	*Dysbatus sp.(1)*
Lepidoptera	*Geometridae*	*Dysbatus stenodesma*
Lepidoptera	*Geometridae*	*Gastrinodes bitaeniaria*
Lepidoptera	*Geometridae*	*Larentiinae sp.07*
Lepidoptera	*Geometridae*	*Melanodes anthracitaria*
Lepidoptera	*Geometridae*	*Microdes squamulata*
Lepidoptera	*Geometridae*	*Nisista serrata*
Lepidoptera	*Geometridae*	*Nisista sp.(2)*
Lepidoptera	*Geometridae*	*Nisista sp.(3)*
Lepidoptera	*Geometridae*	*Nisista sp.(4)*
Lepidoptera	*Geometridae*	*Poecilasthena pulchraria*
Lepidoptera	*Geometridae*	*Psilosticha attacta*
Lepidoptera	*Geometridae*	*Syneora mundifera*
Lepidoptera	*Lasiocampidae*	*Pararguda rufescens*
Lepidoptera	*Noctuidae*	*Agrotis munda*
Lepidoptera	*Oecophoridae*	*Agriophara leptosemela*
Lepidoptera	*Oecophoridae*	*Philobota acropola*
Lepidoptera	*Oecophoridae*	*Philobota orescoa*
Lepidoptera	*Oecophoridae*	*sp.039*
Lepidoptera	*Oecophoridae*	*sp.040*
Lepidoptera	*Oecophoridae*	*sp.131*
Lepidoptera	*Pyralidae*	*Anemosa exanthes*
Lepidoptera	*Tortricidae*	*Arotrophora arcuatalis*
Lepidoptera	*Tortricidae*	*Isochorista sp.ANIC3*
Lepidoptera	*Tortricidae*	*sp.107*
Odonata	*Libellulidae*	*Diplacodes bipunctata*

Many thanks Reiner for organising the excursion and for this fascinating report – hopefully, the first of many such endeavours.

Smokebush bees from WA – A real treat!

Conospermum is a genus flowering plants in the family Proteaceae. The genus, with about 50 species, is endemic to Australia with most of these species restricted to WA. They are called smokebushes as from a distance, their wispy heads of blue or grey flowers resemble puffs of smoke. They have an unusual pollination method that sometimes leads to the death of visiting insects.

Smokebush flowers are insect pollinated. The flowers are unusual in that when they open, the style is compressed and so when an insect lands on the flower, the style flicks from one side of the flower to the other, at the same time collecting pollen and adding adhesive to the insect. The anthers then "explode" dusting the insect with pollen. The force of the "style flick" can kill small ants and flies. That's pollination at the extreme!

In 1989, Dr Terry Houston of the Western Australian Museum described three new species of bees that are oligolectic on smokebush – which means, these bees only forage on this one genus of plant and in some cases feed only on a few species of this genus. The opposite is polylectic which means the bees feed on a wide variety of plant families and genera – think of the European honeybee. These bees are in the genus *Leioproctus* (*L. conospermi, L. pappus* and *L. tomentosus*) and they feed exclusively on one or several species of *Conospermum* obtaining both nectar and pollen. These bees have a unique series of modifications: to aid with camouflage - being covered with varying amounts of grey-white hair that blends with the colour of the flowers as well as milky eyes and wings; they have smaller mouthparts - possibly as a defence to "violent" and "explosive" nature of the flower's style and

anthers; and finally, due to the large and course nature of the *Conospermum* pollen grains, the females pollen collecting hairs are sparse rather than densely packed. Using their proboscis, the bees trigger the flower to strike them and shower them with pollen. Kerry Stuart's recent BowerBird posts on one of the WA smokebush bees noted my interest in these bees and I wanted to share with you these cool bees.

Leioproctus conospermi Location: Creyk Park, WA. Photos by Kerry Stuart

Another first from BowerBird to ALA.

It's always nice when the first piece of data comes to light for a species as was the case this week. Glenda Walter, our SE Qld roving/photographing biologist, has got another first.

Glenda first came to our attention when she took a photo of a large fly that had flown into her car and landed on the inside of the car's windscreen while she was driving through the Ravensbourne National Park – she then encouraged the fly out of her car. When Glenda's fly image made it to the Australian Diptera community she became their pin-up person. Apart from the type specimen when the fly was first described in 1909, few specimens had been seen again and there were no live images of this fly – until Glenda's image. And then, later on she found a second specimen "sleeping" at ground level. Amazing stuff!

Nycterimorpha speiseri Location: Ravensbourne National Park, Qld. Photo by Glenda Walter.

“Sleeping beauty!” Location: Ravensbourne National Park, Qld. Photo by Glenda Walter.

Glenda’s new “first” is a katydid. Dr David Rentz (ex CSIRO and retired Australian Orthoptera expert) identified Glenda’s image and currently there are no records/images on ALA.

Nicsara cornuta Location: Redwood QLD Photo by Glenda Walter.`

There are remnants, and there are "remnants"

By Bob Mesibov

My wife and I have spent a fair amount of time looking for bugs in small remnants of bush in eastern Australia (Qld, NSW, Vic, Tas and SA). I call it 'salvage sampling', because in many cases the remnant probably hasn't got a future. We look for remnants that are likely to be cleared for residential development or more intensive agricultural land use. We collect specimens for deposit in the State museums as a record of what was once a more widespread fauna.

To our surprise, we've found that the 'health' and apparent quality of the remnant are not much good as predictors of invertebrate abundance and diversity. Here's how NSW NPWS suggests that remnant health can be assessed (http://www.environment.nsw.gov.au/resources/nature/Factsheet11ProtectingRemnants.pdf):

Healthy Habitat -
The natural tree cover remains
It is free of weeds and exotic grasses
There is a range of understorey plants
There is regeneration of trees and other plants There are old trees with hollows There are fallen logs and timber The trees have a healthy foliage cover

Degraded Habitat -
The tree cover partly or completely cleared It has been invaded by weeds and exotic grasses There are few or no understorey plants There is no regeneration of young trees and other plants Old trees with hollows are missing There are no fallen logs and timber The trees are showing signs of dieback

It seems reasonable that a healthy remnant would have more bugs than a 'degraded' one, yes? But it ain't necessarily so.

We've found hardly anything in remnants now protected as 'nature reserves', and rich native faunas in scrappy bits of nearby bush with an abundance of broken glass, 4WD and motorbike tracks and stumps of trees cut for firewood.

I should expand a bit on what I mean by 'bugs'. We collect litter invertebrates, most of which have no flying life-stages. We sample land snails, millipedes, centipedes, velvet worms, flightless beetles and other animals that can only move around the landscape by walking. Groups that can disperse through the air, like insects with winged adults or winged castes (ants, termites) and ballooning spiders, are generally easy to find in both healthy and degraded remnants.

So why the puzzling distribution of poor dispersers? We think the answer is usually historical. The remnant looks great in 2016, but that could be after decades of recovery from near-total clearing, over-grazing, or digging-up by rabbits and sheep during droughts in the pre-myxomatosis years, when large areas of bush were reduced to scattered, sick-looking trees standing in dust. During those past bad times, the litter invertebrate fauna might have been impoverished or wiped out. The vegetation may have recovered, but the non-flying species haven't recolonised the remnant because there are no nearby populations to act as sources of colonists-on-foot.

And the scrappy remnants with rich faunas? These are often small leftovers of Crown land in closely settled districts, perhaps gazetted as firewood or timber reserves, or as resting places for travelling stock and their drovers. The key to their success as Noah's Arks for non-flying invertebrates is that they were never cleared or intensively grazed. From an invertebrate point of view, these are genuine remnants. The nice-looking bush down the road without a decent native fauna is a "remnant".

We're lucky to have a genuine remnant close to where we live in Ulverstone, Tasmania (see aerial view, below). It's only 2.6 ha and part of it was long used as a quarry. It's now the Council-owned Reid Street Reserve and has a Friends group that removes weeds and rubbish, and plants out locally native trees and shrubs.

Reid Street Reserve, West Ulverstone, Tasmania [Image from LISTmap (http://maps.thelist.tas.gov.au/listmap/app/list/map)]

There are animal weeds a-plenty in the Reserve, including the snail *Oxychilus* sp. and a range of slugs, the woodlice *Armadillidium vulgare* and *Porcellio scaber*, and Portugese and other exotic millipedes. These co-exist with a surprisingly large diversity of native litter invertebrates. This morning (10 September 2016) I added *Gasterogramma psi* (pictured) to the Reid Street millipede list, which now includes eight native species — more than half the district total.

Gasterogramma psi ('harlequin' colour form)

I'm hopeful that with further planting and tending by the Friends, the native invertebrate populations in the Reid Street Reserve will prosper at the expense of the invaders.

--- Thanks Bob for this wonderful insight to your activities.

Don’t forget to watch out for Orchids now.

Some wonderful orchid images have begun to appear on BowerBird. It is exciting to watch the change of season by viewing a chronology of BowerBird records.

Crimson Sun Orchid (*Thelymitra x macmillanii*) Location: Arnold West VIC Photo by Russell Stanley

The skill levels of BowerBird members always humbles me. Here is what Russell wrote about the above image: “I've entered the identity as T x macmillanii, though this depends on how technical you wish to be with using the named hybrid.

Technically T x macmillanii is a cross between *T antennifera* and *T nuda*, whereas this almost identical hybrid is between *T antennifera* and another member of the *'T nuda* complex', *T megacalyptra*. (There are other hybrids of *T antennifera* that are also very similar - those with *T luteocilium* [also seen at this site], and those with *T rubra*).”

Kooyoora Spider Orchid *Caladenia* sp. Location: Wehla VIC Photo by Russell Stanley

Russell commented: “The Kooyoora Spider Orchid doesn't appear in the BowerBird database and has yet to be formally named. It is a *Caladenia* sp. aff. *venusta* that shows some differences to the 'normal' Caladenia venustas of Western Victoria. This specimen has a pink hue over the crystalline white petals and sepals. Due to the restricted occurrence and vulnerability of this species, the location entered has been

generalised somewhat to help prevent inadvertent trampling or illegal collection.”

Thelymitra megcalyptra Location: Brenanah VIC Photo by Russell Stanley

Russell commented: “Flowering on a barely warm day. This is one sun orchid that flowers early and will open even on coolish days. Interestingly, this specimen had a large flat leaf that was lax in the upper half - see photo - and bent right over. Another specimen nearby had a short, narrow rigid leaf. Both the same species.”

Glossodia major Location: Brenanah VIC Photo by Russell Stanley

Russell commented: “Variegation or partial albinism?”

Interesting hybrid orchid - Cyanicula caerulea x Pheladenia deformis Location: Stawell, Vic. Photos by Russell Stanley.

Russell commented: “I found a couple of these interesting hybrids at this location today. Pictured is the hybrid and the last picture shows the two parent plants. This hybrid is often found where both parent intermingle. This is the fifth location I've encountered it, but it does require careful observation to spot them!!”

Tawny spider orchid *Caladenia fulva* Location: Ararat VIC Photo by Russell Stanley

And finally, what's a Bugle without Mark Berkery's

Nature Place

To call them pollinators is to reduce them to a function they perform in nature. It's rational, scientific, but they are much more than that, to me.

To me the primary value of nature (insect pollinators in this case) is as a reminder of something else, through sense. Because when you're under the hammer of mind as rampant thinking or the dreadful emotions it usually ends up stirring it is sense that helps you out for good – no undesirable (side) effects.

Sense as I see it, outside the world of mind-made problems, is a spiritual element of being in that, properly acknowledged, it can help resolve the problem of mind by nothing more than focus of attention, and right action, that may lead to realisation of something greater.

Any endeavour that omits the spiritual element and value, of sense and the realisable power or space within which a thought or planet occur – not religion, please – is doomed to be repeated.

Enjoy the pollinators for what they are … wonderful little earth creatures, faeries down the bottom of the garden … while they are.

More than a pollinator of flowers or crops.

Click the pictures for a better view.

See the colour, the form, and wonder ...

... are they just elements to be killed or harnessed?

Or is it clear these magnificent beauties are representative of something purer, unseen ...

... of our own wonderful mystical nature that defies reducing.

They frolic in the flower heads ... pollen dripping from their mouths.

Sit out the rain on a big yellow pillow.

Climb around the butterfly bush looking for the tastiest morsel.

Flit from flower to flower, playing in the garden.

The colours, this neon fiddler beetle.

Where better than on a crucifix orchid to pray in the dark of the night.

She traversed the garden, flower to flower, looking for the best spot to hatch her young. Pollinating as she went.

Now – I have a lot of fun writing the Bugle each month and I would like to share that fun. If anyone has a BowerBird related story they would like to tell, please send me your story and I will include it in the next Bugle.

As always ….. from BowerBird .. that's your lot for this week.

Haveagoodweekend all …. Happy photographing …

Cheers – Ken

(If you wish to leave this email list, please contact me directly at kwalker@museum.vic.gov.au – else share with your friends)