



# Montreal Field Journal

A monthly newsletter showcasing the biodiversity of Montreal Goldfield

## Issue No. 2 ~ April 2023

For the most part, April has delivered near-perfect autumn weather here on the Montreal Goldfield with cool nights and crisp mornings followed by warm, sunny days interspersed with occasional falls of rain. All in all it's been very conducive to frequent and protracted meanderings around the goldfield even though we're coming into the "quiet" time of the year.

**MUSHROOMS** : Autumn is the peak season for mushrooms and I have spent a lot of time hunting for them this month. The time has been well rewarded with some absolute beauties found. Of course, this means I've also spent an inordinate amount of time on my hands and knees crawling through leaf litter in order to photograph them ... c'est la vie. Although several different species were found I am struggling to identify the majority of them to species level, largely because many Australian mushrooms are yet to be described. I do however know that most of the mushrooms found on site so far are boletes. **Boletes** can usually be identified by the spongy porous surface beneath the cap rather than the gills found on what would generally be regarded as a "typical mushroom". Below are three thus far unidentified species of bolete found growing on the Montreal Goldfield this month. As you can see, they all look quite different. The third photo shows a gilled bolete, possibly a Golden Gilled Bolete - proof that even in nature there are exceptions to every rule.



A bit of general information about mushrooms and mycelium - Mushrooms are the typically umbrella-shaped fruiting bodies (sporophores) of certain fungi. They, like many fungi, grow from mycelium, a root-like network of branching thread-like strands called hyphae. You have probably seen these fungal threads when you have kicked over a lump of damp mulch or a log, and perhaps wondered what it was. Mycelium grows from fungal spores and spreads through soil, wood or other organic substrates. The mycelium's hyphae secrete digestive enzymes which break down organic matter and release nutrients which then feed not only the fungi but surrounding plants and many other organisms. In doing so they play a critical role in an ecosystem's decomposition and regeneration processes, and also aid in the creation, aeration and binding of soils. **A few fun facts** - not all mycelium is visible to the naked eye. Indeed, the mycelium in just one teaspoon of

soil, if teased apart and laid end to end, would reach anywhere from 100 metres to 10 kilometres. On a larger scale, the fungal networks of mycelium, whether visible or not, are woven through the soil with up to 485 kms of fungal mycelium lying beneath every step we take. And finally, the world's largest and oldest organism is an unbroken network of mycelium sometimes referred to as the "Humongous Fungus". Found in the Malheur National Forest in Oregon, USA, this living organism covers almost 6.5 square kms and is estimated to be more than 8,500 years old! A final word on mushrooms FYI in case you were wondering (I know I was!) - popularly, the term *mushroom* is used to identify edible fungus species while the term *toadstool* is often used to identify those that are inedible or poisonous. Scientifically however, there is no distinction between the two terms and either can be applied to any fleshy fungal fruiting structure.

**BIRDS** : Some wonderful avian observations have been made on the Goldfield this month with Golden Whistlers, Satin Bowerbirds, Gang-gangs and Glossy Black-Cockatoos all seen on site. I've been told that the Glossy Black-Cockatoos, commonly referred to as "Glossies", have not been seen here for some time so their return is both exciting and welcomed. Glossies have a very specific and restricted diet, feeding only on the seeds found in the cones of *Allocasuarina* (Sheoak) trees. Beneath the trees on which they feed chewed cones known as "chewings" can be seen strewn over the ground and are often the first indication that Glossies are in the area. Bob Georgeson found one such feeding site beneath an *Allocasuarina littoralis* (Black Sheoak) on Montreal Goldfield this month. Good spotting Bob! and thank you for letting me know. Although Black Sheoak is common on the goldfield we have yet to find a single other tree that has been selected for feeding - for reasons unknown Glossies will select a particular tree on which to feed but ignore others in the same area. Unfortunately, I've yet to manage a photo of either the Gang-gangs or the Glossies but I'm working on it - I just need to be in the right place at the right time so wish me luck. Although I have seen Gang-gangs several times in the local area the brief sighting of the Glossy Black-Cockatoo earlier this month was my first glimpse of this rather special bird and led to some intensive research. I have included my notes on Glossies separately for those of you who may be interested.



Almost every visit to the Goldfield this month has been met with sightings of the delightful **Golden Whistlers**. These birds are certainly not shy about making their presence known - their distinctive, shrill calls alert one to their presence long before they're sighted! Considered to be one of Australia's most beautiful songsters, Golden Whistlers are present in the local area all year round although some move north during the winter months. I hope that's not the case as I enjoy watching and listening to them.

**Photo at left - a male Golden Whistler on the Montreal Goldfield.**

Also sighted this month, very unexpectedly, was a small group of **Satin Bowerbirds**. Although a very common species in the area this was the first time I'd observed them at Montreal with at least three green birds seen in thick vegetation beside one of the tracks. It's difficult to identify females from young males at the best of times as their plumage colour is similar. When they're moving

constantly and for the most part are partially obscured from view there's no hope! After several minutes a mature blue-black male turned up to join the greens. Mature males such as the one observed don't moult into their full dark, glossy adult plumage until they are seven or eight years old. An interesting fact which I have only recently learnt - Satin Bowerbirds are the longest-lived of all the passerine (perching) birds with an average lifespan of 8 or 9 years but one caught in the wild had a leg band that aged it at 26 years. Thought ... Wouldn't it be marvellous if we could find a bower on site to confirm that the goldfield is a breeding ground for these birds?

**SPIDERS** : For the past 2 months I have been regularly checking on and monitoring the **Eastern Golden Orb-weaver (*Trichonephila plumipes*)** colony on the more open south-eastern side of the goldfield. During this time seven of the females have been lost due to bird strikes or other misfortunes but five have thus far survived to maturity. At the time of writing two of the heavily gravid (egg-laden) ladies have left their webs to spin their egg sacs and lay their eggs. Last week I was lucky enough to observe a female Eastern Golden Orb-weaver putting the finishing touches to her egg sac. The sac was located about 3 metres above the ground in the *Exocarpus cupressiformis* (Native Cherry) tree to which the spider's main web line was attached. I had never seen one of these egg sacs before and was surprised at how golden yellow it was. The colour reminded me of the silkworm cocoons I raised in a shoe box as a child. With her eggs laid and the next generation guaranteed this lady's work has been done and she will now die. I have to say I was a little sad when I went back the next day to check on her and she was nowhere to be found.



**ABOVE – Three photos of the Eastern Golden Orb-weaver mentioned above.** The first photo (taken 16/03/2023) shows her alongside her much smaller mate on the right. The second photo (taken 10/04/2023) shows her heavily gravid. The third photo (taken 25/05/2023) shows her moving across the top of her egg sac.

One of the other females surprised me in another way by displaying behaviour I had never observed before. This female had her web set away from the rest of her kind in a somewhat more exposed position that afforded less protection from wind and the fairly constant coastal breeze. Attached to the lower edge of her web and swinging freely a centimetre or so above the ground was a small rock! Despite, or rather because of, the rock's movement the large web above it was holding steady in the breeze. In reply to my (many) questions a spider expert has advised that, although not common, the use of rocks or other items as a stabilizer for large, permanent webs is not unheard of, especially with regards large orb-weavers such as this girl. Who knew that spiders had the capacity to understand

the laws of physics? I have a short video of the rock and spider in question so if any of you are interested in viewing it please email me (see below) and I will happily forward it to you. Disclaimer : As an amateur entomologist my cinematography skills are rubbish .... you have been warned!

I'll leave you with a mention of the **Montreal Goldfield Biodiversity Project** on **iNaturalist** which reached a significant milestone this month. Thanks to Joy Georgeson's addition of her observation of an Imperial Jezebel (*Delias harpalyce*) butterfly we now have **500 species** visually recorded and identified on site. Thank you Joy for that wonderful addition. The Imperial Jezebel is a species I have not documented in the area although it now seems possibly I have seen them and mistaken them for their more common and very similar-looking relative, the Black Jezebel (*Delias nigrina*). Thank goodness Joy is more diligent!

It's worth noting that, as wonderful as the Montreal Project species count currently is, it falls well short of the actual number of species on site for several reasons. There are, for example a total of 320 plant species formally identified as present on site. The majority (295) of these species are listed on the "Montreal Goldfield Flora List" compiled by local botanist Jackie Miles with the assistance of Stuart Cameron and Rebecca Rudd. However, only half of these species have been photographed and added to the Montreal iNaturalist project. I am working towards rectifying the situation and hope that all species on the flora list will eventually be photographed and added to the project. Progress however is slow, especially where the grasses are concerned. My fault entirely for 2 reasons .... a) I find plants, especially grasses, difficult and fiddly to photograph well enough for identification purposes (think "too hard basket") and b) I keep getting distracted by small flying/crawling things. Birds share a similar problem with many more species observed on site than is currently listed on the iNaturalist project. Again, I am trying to photograph all species currently missing from the project's species list but which are known to be on site or within the immediate surrounding area.

Insects, spiders and other invertebrates are another problem entirely. Because a vast number of Australian invertebrate species are yet to be scientifically described it is nigh on impossible to identify many of the photographed inverts to species level. Adding to the "definitive identification to species level" woes is the fact that many inverts look superficially similar and so cannot be identified by means of a photographic image alone. In such instances identification can only be confirmed by means of microscopic study and/or dissection (especially of genitalia) or DNA testing. Let me state quite emphatically that both of these fall well outside my skill set (I have yet to win a game of "Operation" so I can't imagine any dissection work going well) so, unless I am prepared to collect specimens and forward them to an obliging expert willing to do the necessary work, I/we shall have to settle for many identifications to genus, tribe or higher levels, at least for the time being.

And that's a wrap for April. Please feel free to contact me via email [deb\\_taylor142@hotmail.com](mailto:deb_taylor142@hotmail.com) if you have any questions or would like to receive future issues of the field journal via your email inbox. If you haven't already done so I would also encourage you to hop online and have a look at the Montreal Goldfield Biodiversity Project on iNaturalist. The project is very much a companion and support for this journal and vice versa. I look forward to sharing the next month's wonders and delights with you but until then, be kind to each other and to our environment,

*Deb*

Note : Unless otherwise stated all photos used above were taken by me on the Montreal Goldfield during April.