

# The Ballarat Naturalist

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## “Water and Gold - A Shared Heritage

An Introduction to Creswick Goldfield’s Water Distribution

Landscape - Excursion held Sat 7 May.

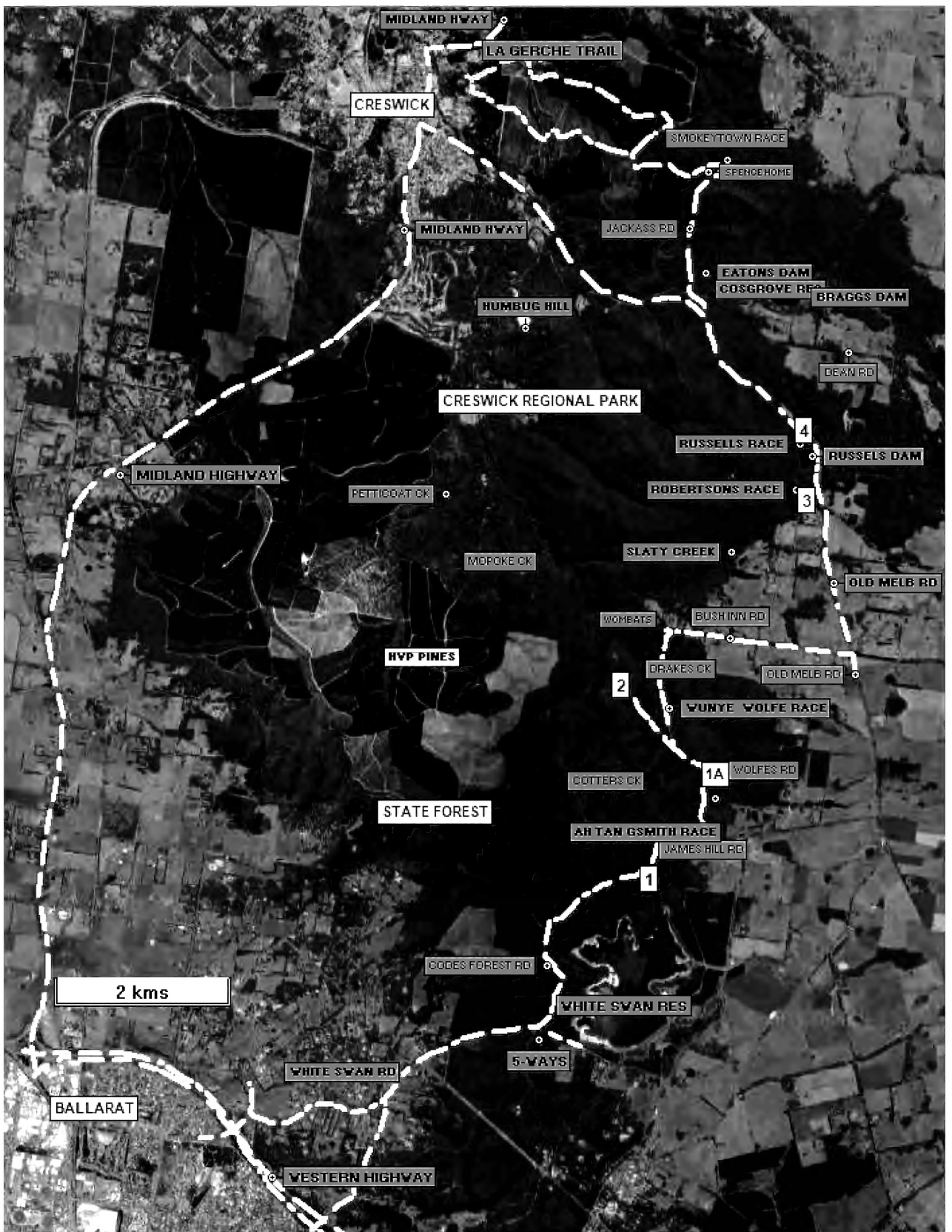
It was heartening to see 12 members venture out in threatening weather, and we felt fortunate to complete 5 stops and walks without getting wet. This was an introduction to some heritage water races in the southern and eastern parts of Creswick’s Alluvial Goldfields. We covered 2 Chinese managed races and 2 races developed by Canadian and Irish water merchants.

Stop 1. was on James Hill Road in Creswick State Forest on Wathaurong Country, just south of the Ballarat boundary with Hepburn Shire (and with Dja Dja Wurrung Country). This was in well protected woodland on the Great Divide, west of White Swan Reservoir and close to the junction of 3 major water catchments – North Central (flowing north and west to the Murray), Corangamite to the south and east (Moorabool and Barwon), and Glenelg Hopkins CMA to the south and west.

This area south and north of James Hill (630 m asl) attracted several ‘mining entrepreneurs’ who developed a network of dams and water races to the Creswick Goldfields of the 1850-70s, that were used for sluicing and dredging until the 1930s. Some races and dams were bought by water companies and some dams are still used by water authorities now.

We looked at parts of this extensive water system that is the subject of a ‘Nomination’ for Victorian Registration as a Cultural Heritage Landscape. It will cover 10 major water races and numerous significant heritage places. 25 such places are currently listed on the Victorian Heritage Inventory.

A map of the excursion route and stops is shown on page 2. The dashed line shows our route north-east to Russell’s dam and then west to Creswick and back south along the Midland Highway to Ballarat.



Stop 1A. was on Wolfe's Rd where we looked at Ah Tan and Goldsmith's Water Race which is about 7 km long. This is the southern-most water race flowing from the James Hill area, and was built in the mid 1870s under a licence to sluice '15 acres of land on a 15 year lease from a dam of 500 000 gallons.



Club member, Paul, standing uphill of AhTan and Goldsmith's 150 year old Race near its crossing of Wolfes Road

When the lease expired in 1891 it passed into Government ownership, and much later was leased and repaired by Len Goldsmith for sluicing in 1930. Where it crosses Wolfes Rd this race is still about 1 metre wide and 50 cm deep – despite wear and ‘fall-in’ for over 100 years.

Races were hand-built, mainly by Chinese workers, who determined gradients by allowing water to flow from upstream, keeping the route as high as possible across the slope. The race had banks and flumes across deep gullies and also fed a major

holding dam on Butchers Gully. At this time of year only Pink Heath (pictured) was in flower, but in Spring the Divide here has spectacular *Daviesia latifolia*, other peas and various orchid species.



Stop 2. was further north on Wolfes Rd at a crossing of WunYe and Wolfes' Race. At this point the race is narrower than AhTan's Race but flows and branches for over 10 km west and served many miners and companies over the years. It crossed several major gullies and supplied water to the Ironstone and Forty Foot sluicing area as well as two market gardens west of Slaty Ck and near Mopoke Ck. An unusual feature now is the predominance of the shrub *Pomaderris racemosa* growing in the damp soil near the race (see below). We observed a 100 year old wooden footbridge across the race and a sump used to house a water 'offtake' to a sluicing area below. Such off-takes had gates to allow regulation and measurement of flow to miners purchasing the water below.



The race was built in the mid 1860s by George Wolfe who ran a small hotel at Kangaroo Gully near Petticoat Ck in 1854. Wolfe's water right ended in 1884 and WunYe obtained a new right to extend the race further west to Mopoke area. This information is available in court records, which also cover many disputes over water rights and uses. Such records and negotiations over water rights are said to have led to the development of Victoria's unique mining water legislation, that allows use of water by non-riparian land users.

WunYe ceased using the race in 1890, but ‘Creswick Proprietary Sluicing’ and other companies took over the race and dams until at least 1930. This story typifies the rich multi-cultural history of the Creswick alluvial gold mining days. George Wolfe later had a hotel at a site on the present Wolfes Rd, near the route of the Great Dividing Trail.

Stop 3. was just west of the Creswick Bungaree Rd and above Russell’s Dam. We walked 400 m west to follow Roberson’s Race to a point overlooking Russell’s Dam. This race (below) was built by (Canadian) James Robertson who came to Victoria via the Californian Goldrush and also the NSW gold-fields. He was attracted to Creswick by reports of rich gold finds and cheap and un-tapped water supplies. In 1855 he obtained rights to take water from upper Slaty Creek and west above Russell’s Dam to the richest gold-yielding sites on Humbug Hill.



He had mining interests along the race and sold water to many other miners. He was refused an application to build a water-powered timber mill near Creswick (because water was ‘reserved for mining’), so took work with Anderson’s company to built a timber mill near Dean in the early 1860s.

But Robertson soon saw greater prospects in New Zealand and moved there to develop water supplies and races, and became a major timber merchant and then a prominent political figure in Queenstown. His letters show that he never returned to Canada where his father wanted him to take over family farms.

Robertson's Water Race and rights were taken over in the 1870s by St Georges Sluicing Company, which extended the race by means of a flume and piping to take water for sluicing the top of the gold-rich Humbug Hill.

Stop 4. was at the 8 m high wall of Russell's Dam in Ashwell Gully, built by the (Irish) Russell brothers in the early 1860s. The younger Russell brother George was transported to Australia in 1835 but by 1850s had settled in Creswick and become involved in mining.

In 1854 George bought shares in the first 'water privilege' on Creswick Creek, which enabled an early entry to mining and water dealing. Elder brother William arrived in Creswick with wife and 6 children in 1855, and soon became a prominent administrator and official involved in the mining and water regulation. George joined William in various mining and water supply ventures and in water court disputes.



Subsequently, the Russell family became prominent miners, landowners and farmers in the Cabbage Tree and then Dean areas. Their dams and races supplied water for major early sluicing, especially on lower parts of eastern Humbug Hill and in Lincoln Gully. Later hydraulic sluicing and then dredging projects were developed by their sons and grandsons' families up to the 1930s. Parts of Russell's race were taken over by the council in the 1880s, and parts were obliterated by sluicing in Lincoln Gully. Over 100 years later, upper parts of the race are still extant features of Creswick landscape.

*John Petheram*

Thanks to John Petheram and Margaret Rich for leading such an interesting excursion exploring the intriguing and important history of the area. (ed.)

Information on the Creswick Water landscape is available in the publication:

Davies Peter, Lawrence Susan and Turnbull Jodi (2015). *Water and Gold: Interpreting the Landscape of Creswick Creek*. La Trobe University, Messmate Press, Melbourne.

Available on line at:

<https://riversofgoldcom.files.wordpress.com/2018/02/creswick-book.pdf>



Hop Bitter Pea, *Daviesia latifolia* is a common spring-flowering native in the Creswick area. (The epithet “latifolia” means Broad Leafed)

## Outback Queensland

Geraldine and Geoff Harris, from Castlemaine Field Naturalists shared a journey they made in 2021. Like so many people, their plans had to be altered in response to COVID-19 border closures, so they finished up being on the road for four months. They towed a camper trailer which gave them the freedom to wander, stay along creeks, rivers, dams, and other places of interest and visit townships to make use of facilities and supplies periodically. They chose to cover parks of outback Queensland. Sometimes they were national parks; others were conservation parks or scenery along their routes. They observed that former properties have been reclaimed and are returning to more natural areas. Sheep have largely been abandoned and replaced by cattle, often Brahmans. In some areas damage caused by pigs is extensive. On some properties old shearing sheds have been repurposed.

Currawinya N.P. is an area of deep granite seams reaching deeply into the artesian basin. It is huge and has varied terrain and vegetation with both salt and freshwater lagoons for many birds. It is a Ramsar site and a sacred site for



first nations people. We were shown a black fronted dotterel, and these beautiful Silvertails *Ptilopus obovatus*.

From there, Geoff and Geraldine travelled to Bowra Bird Sanctuary – an Australian Wildlife Conservancy property, for five nights. Here, different habitats suit different bird species with maps provided to guide visitors. At a dam were hundreds of zebra finches. Each afternoon at 5:30pm people gather in the old wool shed to compile bird lists. At night, calls of bush stone curlews rang out. Amongst varied vegetation were mulga tress – *Acacia aneura* and various types of eremophila.



Next was Mariala National Park where there is a rare grevillea and sida and hakea species and a well used to provide water by roaming aboriginal people. From here the travellers went to Hell Hole Gorge National Park. Unfortunately, the name recalls some sad historical clashes between settlers and earlier inhabitants. However, the terrain looks spectacular with deep gorges, rock platforms, a beautiful river, mulga, and Epilobium species.



Hell Hole Gorge

Idalia National Park again was a former pastoral property with evidence of earlier use with a stockyard made of stakes and hand-made twisted wire. (right) There is a rock formation appropriately named Wave Rock, lookouts, a creek and vivid rock and soil colours in Rainbow Gorge. This is mesa country with high areas looking dry and harsh but lush green valleys.



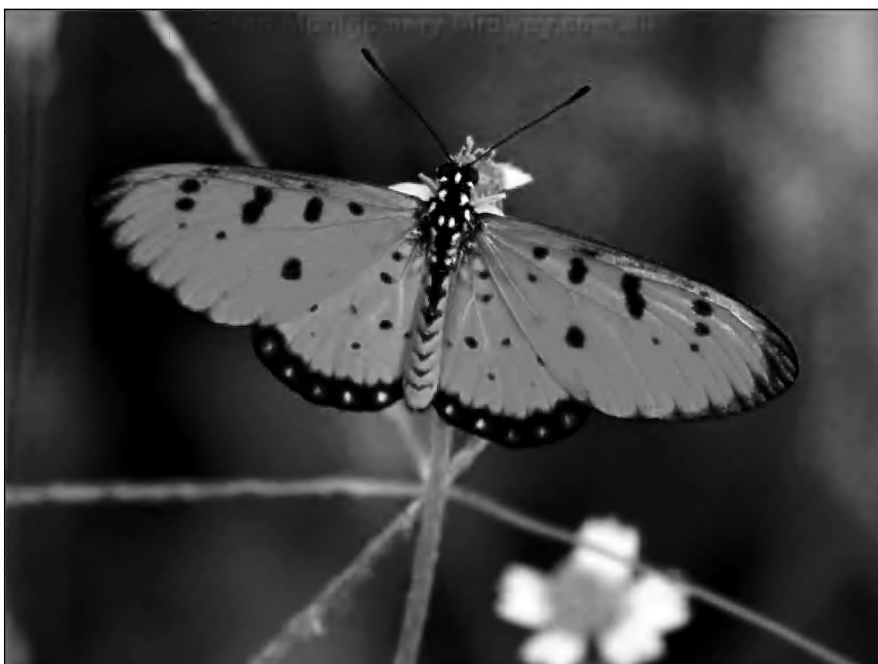
A visit to Lark Quarry Conservation Park showed an upgraded building to protect the footprints created by a dinosaur stampede 95 million years ago. This is the only such known site globally. Large dinosaurs terrified small ones and they scattered in the mud which solidified. The surrounding country is jump up land with mesas, stunning colours as well as pastel shades and covered with spinifex. This is not far from Winton and the famous Dinosaur Discovery Centre where there is a trackway (below right), relocated to preserve and display it, along with fossils.

Ancient bones are wrapped and plaster casts taken. These are gradually cleaned.

At Bladensburg N.P.

Mitchell grass covered

the plains along with spinifex. An interesting tree resembling an octopus, a black-headed python, a morel, *Cassia helmsii*, *Acacia farnesiana*, black kites, a red-backed kingfisher (see p.14) and broilgas added interest to a creek side campsite. Porcupine Gorge National Park demonstrates just how powerful water is over millions of years. There is a very deep gorge and pyramid shaped rock formation. The butterfly shown below added interest here. Known as a Tawney Coster *Acraea terpsicore*, it had crossed 700km of Timor Sea. Many agile wallabies were also found here.



Combo Waterhole Conservation Park, part of Banjo Patterson's Waltzing Matilda story is covered in Mitchell grass. A bustard amongst the grass added interest. The pair travelled a 200km loop from Aramac admiring 40 whimsical sculptures arranged in suitable locations such as a koala in a tree (albeit leafless).

At Muttaborra they looked at the dinosaur exhibition and saw an emu minding eight chicks. There was also a "Stonehenge" nature drive and stone well. From there they visited Welford National Park. Evidently, there were many



things there to enjoy in country harsh but beautiful. A rainbow bee eater, two lined dragon, *Eremophila bignoniiflora*, wild orange *Capparis mitchellii*, yellow and red peas, *Parakeela* sp., *Dodonea* sp., *Sida* sp., red cushion bush, pink flowers and goanna and legless lizard tracks in the sand.



Hairy Goodenia *Goodenia lunata*, Wellford NP

The road to Birdsville passed Wadi trees – *Acacia peuce* which are very tough, wiry trees with extremely hard wood (see below). They are only found in four locations – Boulia, the Simpson Desert, South America and the Birdsville area. They were prized by first nation people and early settlers for durable fences. They are now protected.



Boodjumulla N.P. (formerly Lawn Hill) was next. They saw a freshwater crocodile (Johnstone's crocodile), the numbers of which are believed to be dropping. They showed *Grevillea dryandra*, Cabbage palms - *Livistonia rigida*, and the beautiful river with lush green surrounds.

Riversleigh world heritage site showed fossils in rocks which reveal the ancient transition from wetter to dryer climate. Parts of this area are off limits to the public, but some fossils are clearly visible. There were crimson finches. In the township of Boulia there are spherical rocks known as moon rocks. The nodules are concretions formed in the sediment and vary in size. Some were surrounding a planted tree.

In Diamantina N.P. damage caused by destructive wild pigs was evident. Again, handmade holding yards paid testament to former pastoral use. We were shown Gidgee *Acacia georginae*, *Frankenia* sp. (see page 13), *Tribulus* sp., *Brachyscome goniocarpa* (Dwarf daisy), and carpets of *Eremophila latrobei*. Evidence of earlier use of the land was found in stone tools sites.



A drive to Middleton through properties showed more jump up country, ground springs, mesas with hard ironstone top layers, reed beds, soft pastel colours and *Hibiscus krichauffianus* (Velvet-leaf hibiscus). The hotel was a Cobb and Co. site and a camp site and meal for Geraldine and Geoff.



A spectacular moonscape view from Cawnpore Lookout, Diamantina NP



Big Red Sand Dune - Munga-thirri NP

Near Birdsville Geoff and Geraldine went to see Big Red, the famous huge red sand dune before travelling down the Birdsville Track heading back to Victoria.

This was a wonderful trip through outback Qld. National parks, dinosaur locations, tiny rural towns, blazing stars in clear night skies, camping along rivers and creeks and observing a wide range of natural history. We thank them for sharing their journey with beautiful photographs.

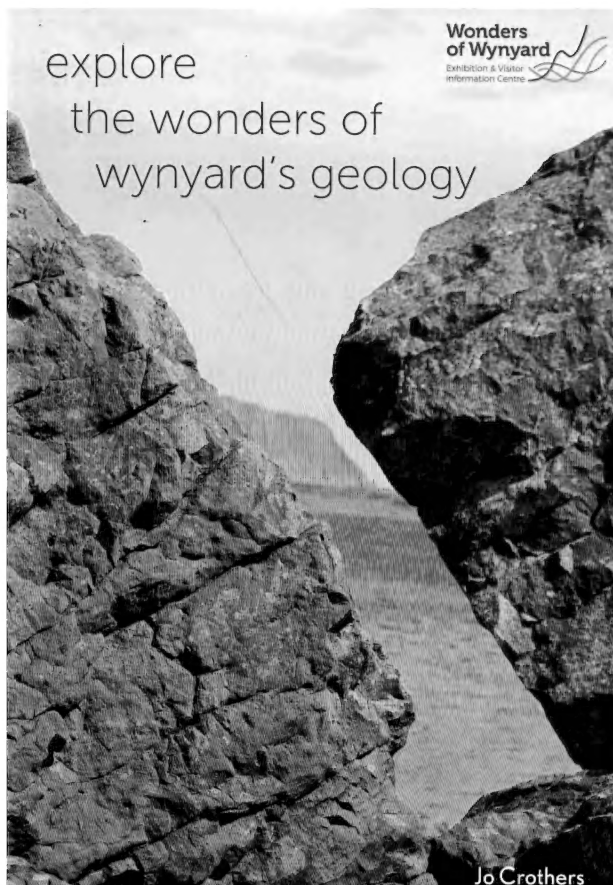
*Claire and Peter Dalman*



### *Once a field nat...*

After several years of lockdown, Tasmania was once again on my visiting list. My sister lives in Ulverstone on the north west coast, not far from Devonport, so I flew over there in mid-May to catch up with her and other friends in Launceston. Life Member of FNCB, Margaret Rotheram also lives nearby in the coastal town of Wynyard and I decided it would be nice to visit her and hand-deliver her newsletter which is usually posted out. Margaret often sends me a message thanking me for the newsletter - a gesture which is greatly appreciated, so it was easy to reciprocate.

As it turned out, Margaret was busy with a son whom she had not seen for some time and who was visiting, so they would not be at home. I ended up dropping the newsletter in her letterbox. Margaret followed that up with a thank you letter and a copy of the book shown right. It's a field guide of short walks to local coastal geological features such as Fossil Bluff which are renowned world-wide. At 90ish, Margaret is still a keen observer of nature and her involvement with U3A means she can keep abreast of nature-related events and points of interest.



My sister and I spent almost an hour wandering along the beach at Fossil Bluff on this visit, and as the book explains, there is clear evidence of fossils in the cliff. It is well worth a visit. Of interest is a geological anomaly that is a mystery to science. Known as a 'disconformity' the base of the Bluff consists of 23 million-year-old sandstones (full of over 300 different marine fossils) lying directly over a deposit of glacial material laid down 300 million years ago. To date, no one knows what happened during the intervening 270 million years—a complete mystery!

It just goes to show that once you're a field naturalist, it's hard to not be a field naturalist. There's always something out there to tweak your interest, occupy your mind, and share with others.

Thanks Margaret!

*Bill Elder*

## Excursions and Meetings coming up

**June Friday 3rd** Club meeting 7.30 pm via Zoom.

Members will receive a link a few days prior.

Our own fungi expert Les Hanrahan is presenting on Fungi.

**Sunday 5th** Excursion. Les Hanrahan will lead an excursion focussed on fungi in Wombat forest. Firstly, to Cairns road, Korweinguboorra, and after lunch to Slaters road Mollonghip. Lunch will be at the Moorabool reservoir picnic ground. We will stop for a toilet break here earlier on the way to Korweinguboorra. Some members may like to join us on the corner of the Spargo-Blakeville road and the Ballan-Daylesford road near the de-licensed Mineral Springs hotel about 10:15am. We will leave from the usual spot in Gillies street.

Members are advised to wear suitable warm clothing including clean boots and could bring a small mirror, a magnifying glass, fungi field guides or folders, camera and insect repellent to discourage leeches. (Les have not had any problems with leech bites at these spots but it is wise to be careful.)

**July Friday 1st** Club meeting 7.30 pm via Zoom. Members will receive a link a few days prior. Presenter Chris Timewell from Bird-life Australia will tell us about projects being undertaken by the Woodland Bird Team.

**Sunday 7th** Excursion to Skipton led by club Secretary Emily Noble.

### **Committee**

President	Margaret Rich
Secretary	Emily Noble
Treasurer	Kathy Elder
Committee	Andy Arnold Bernadette Cheesman Bill Elder Val Hocking Graeme Lunt John Petheram

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**Meetings** - may continue to be held via Zoom.

Members will be kept informed of arrangements each month.

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