

The Ballarat Naturalist

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2020 Stella Bedggood Memorial Lecture

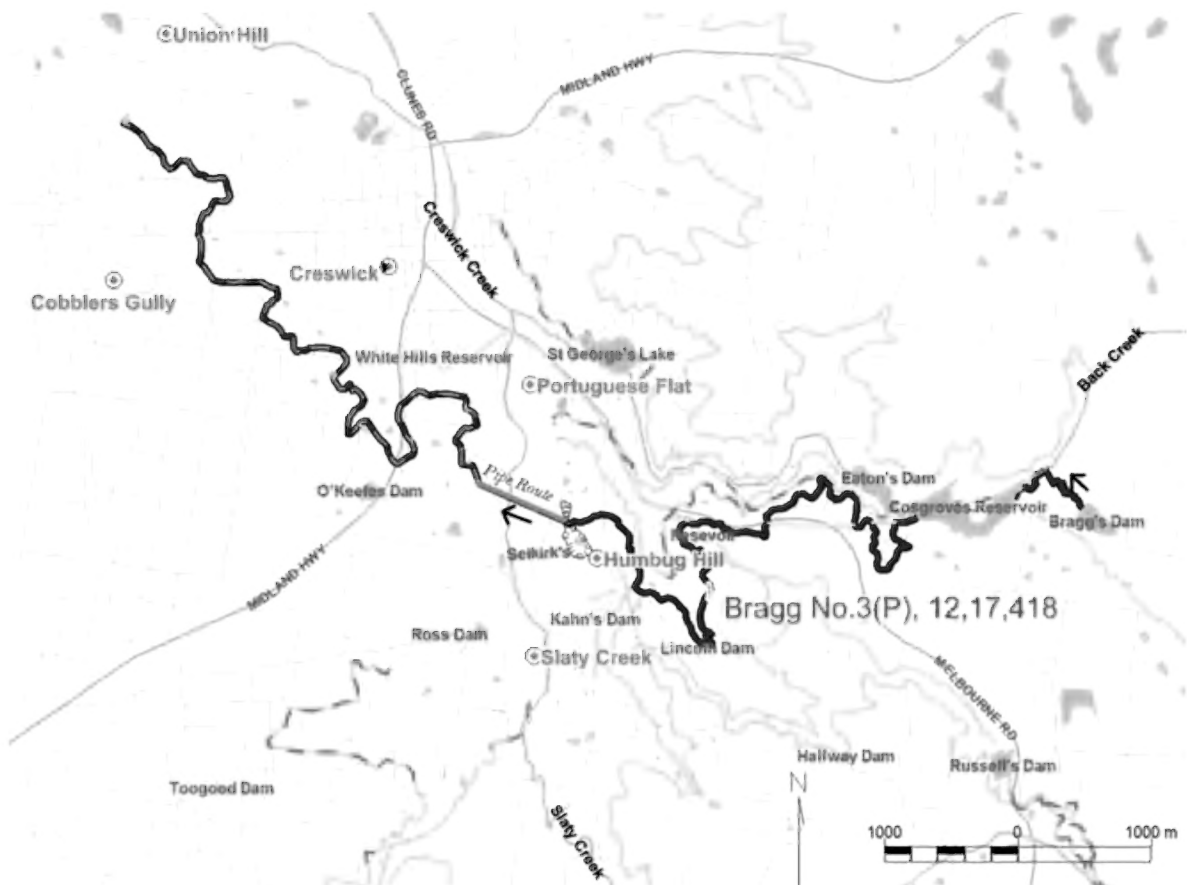
Presented by Professor Susan Lawrence, La Trobe University

Friday 6th November

Susan's presentation was entitled "Rivers of Gold: Creswick Forest and the Supply of Water for Mining" and it told the fascinating story of the environmental degradation caused by the Victorian gold rush.

One of the most surprising aspects of the talk was the extent of water races across the Creswick goldfields, and the staggering amount of water being transported. The map below shows one such race which flows many kilometres from east to west.

This was in a time before large, mechanised earthmoving equipment. Many of the races are still visible today, forming major historical features of the landscape. The same thing was happening throughout Victoria and no doubt elsewhere, as engineers achieved transfer of water across catchments. This meant building flumes and other structures that effectively allowed water to flow uphill.



Another amazing feat of engineering, and one that virtually destroyed much of the stream ecology and hydrology was widespread dredging during the late 1800s. The idea was to remove sludge, the leftover material (alluvium) from puddling and washing of mined soil.

An estimate of the total amount of alluvium extracted by gold mining in Victoria during the period 650 million cubic metres (m³), with a further 200 million m³ from dredging.

This material was waste and it was basically flushed away from the mining sites, only to be deposited further downstream, in many cases ending up in the main river systems of central Victoria such as the Loddon, Campaspe, Goulburn and Murray Rivers.

Ballarat was not immune. The photo below shows a dredge on the Yarrowee River near Bridge St. Sebastopol. Susan showed places where the sludge has been deposited many kms away from its origin.



Susan's presentation brought home the lessons of history, yet again, as human ingenuity and exploration so quickly turn to greed and rampant development for development's sake. Almost always, it is nature and the environment that is the loser and it takes perhaps hundreds of years to repair.

The full lecture is available on YouTube:
https://youtu.be/gj4_m4NT_Sk



Historic Water Race - Creswick Forest



Graphic examples from Tarawingee (left) and Garibaldi (right). The sludge layer is the lighter coloured upper layer more than a meter above the darker native soil of the 1880 level.

Field trip to Clarkesdale Bird Sanctuary in Linton November 3, 2020

10 members of BirdLife Ballarat undertook 20 minute bird surveys at Clarkesdale's five established survey sites during a lovely morning of observation. The group recorded 31 birds + another 8 species including Satin Flycatchers outside of the survey areas/ times.

FNCB members Graeme and Vireya, Margaret Rich, Jenny and Pete Sedgwick joined me, along with Louise, the President of BirdLife Ballarat, who had participated in the bird surveys at the Sanctuary in the morning.

At the first site, in what is known as Oriole block, we saw eight different types of Sun Orchids, a couple of Tiger Orchids, Onion Orchids, a sea of flowering Heath Ti-tree and a very tall Purplish Beard-orchid well-spotted by Graeme and Vireya.



Clockwise from top left: Forest Sun orchid *Thelymitra arenaria*, hybrid Spotted Sun orchid (cross between *T. rubra* and *T. ixioides*), Purplish Beard-orchid, *Calochilus robertsonii*, Twisted Sun orchid *T. flexuosa*, Tiger orchid *Diuris sulphurea*.

We went tortoise-spotting at the second stop in Oriole block, hoping to see a Long-necked Tortoise or two sunning themselves on the bank of Omega Dam (see below). No luck there, but then someone spotted a tiny head moving through the water towards us and sure enough we'd found a tortoise.



A pair of Australasian Grebes were also spotted on the dam, and the air was echoing with the calls of Rufous and Golden Whistlers and both Spotted and Striated Pardalotes. The Omega Dam is benefiting from a “water security for birds and biodiversity” grant from Golden Plains Shire that recently funded the installation of water pipes to it from another large lake in the Sanctuary, allowing us to boost its water level considerably.

At the final stop just south-east of the old Happy Valley Station in the northern section of the area known as “The Bird Paddock”, everyone was delighted to see long-legged Mantis Greencomb Spider-orchids, Rustyhoods, Red Parrot-pea, Milkmaids, Tiger Orchids, Tall Sundews, Coarse Bottle Daisies, Chocolate Lilies, Bulbine Lilies and Austral Bugles under a stand of mature Candlebarks. And everyone had a pat of the Austral Bear’s Ears, marvelling at their softness.

Emily Noble



Female
Rufous Whistler
Pachycephala rufiventris

Mantis Greencomb
Spider-orchid
Caladenia tentaculata



Rusty Greenhood
Pterostylis sp.

After 8 months without excursions due to COVID restrictions it was great to be able to join with club members to observe nearby bushland areas. Although numbers were limited to 10 and we wore masks and social distanced, I am sure that people enjoyed meeting face to face to chat with people and share their knowledge.

The Mt Beckwith excursion began along Mountain Creek Road near the entrance to the park. Box Mistletoe *Amyema miquelii* with ripe fruit was seen on a Yellow Box *Eucalyptus melliodora*. Many Yellow Box were in flower and the drone of bees could be heard.

A short distance away, Drooping Mistletoe *Amyema pendula* was growing on Long-leaf Box *Eucalyptus goniocalyx*. Late in the day Drooping Mistletoe was seen on Blackwood *Acacia melanoxylon* and Black Wattle *Acacia mearnsii*.

After morning tea at The Dam picnic area we had a quick look at some small plants growing around the dam edges.

These included Common Cudweed *Euchiton involucratus*, Jersery Cudweed *Laphangium luteoalbum* and Woolly-heads *Myriocephalu rhizocephalus*.

We headed towards the Cork Oaks planted in a grassy area. Kangaroo Grass *Themeda triandra*, Weeping Grass *Microlaena stipoides*, Common Wallaby-grass *Rytidosperma caespitosum*, and Kneed Wallaby-grass *Rytidosperma geniclatum* (below) were seen. Further along we found Spotted Sun-orchid *Thelymitra ixioides* and Golden Cowslips *Diuris behrii*. Chocolate Lily *Arthropodium strictum* and Milkmaids *Burchardia umbellata* were plentiful.



About thirty years ago Helen Burgess was leading a Club excursion and showed us “Spur Velleia” growing near the entrance to Mt Beckwith. I have looked for it since but have not been successful in finding it. On Sunday we saw many plants east of The Dam picnic area. When checking identity of the plant on Flora of Victoria, I found out it had been reclassified into the *Goodenia* genus as *Goodenia paradoxa* with the common name Spur Goodenia (image from Flora of Victoria below).



Lunch was enjoyed under shady trees at Cork Oaks Picnic Ground. On a short walk we saw Tree Violet *Melicytus dentatus* and a lone Sweet Hounds-tongue *Cynoglossum suaveolens*. Thick Bracken Fern *Pteridium esculentum* grew along a drainage line where we looked at Rough-barked Manna Gum *E. viminalis subsp. cygnetensis*, Cotton Fireweed *Senecio quadridentatus* and Scented Groundsel *Senecio odoratus*.

Sticky Everlasting *Xerochrysum viscosum* covered large areas. We also found some scattered orchids – Mantis Orchid *Caladenia tentaculata*, Common Onion-orchid *Microtis unifolia*, and Slender Onion-orchid *Microtis parviflora*.

The final stop for the day was to bushland south of Clunes Cemetery. Yellow Gums were flowering which attracted honeyeaters and the drone of bees was heard again. Seven bird species were seen in half an hour.

- | | |
|--------------------------|----------------------|
| Musk Lorikeet | White-browed Babbler |
| Brown Treecreeper | Dusky Woodswallow |
| Yellow-tufted Honeyeater | Little Raven |
| Red Wattlebird | |

John Gregurke

Field Report - Enfield Bush Blooms Spring 2020

Orchids...bush treasure of the highest order!

These pics were all taken on one fairly short walk in the Enfield State Park, on the Eastern edge closest to our place.

We had previously located them but had been waiting for a relatively calm day with reasonable light while the window of opportunity existed. They were scattered over about a 1km rough circuit and were all in low numbers - singles, pairs or small groups.

The Hare Orchid was particularly tricky to photograph as it was growing right next to an active and aggressive Bulldog ants (*Myrmecia*) nest, and keeping an eye on the closest ones wasn't helping the concentration on focus and staying still and steady.

It makes me reflect on how fortunate we are to be able to explore and learn about our 'patch' over the years and throughout the seasons.



Hare Orchid, *Leptoceras menziesii*



Tiny Fingers, *Caladenia pusilla*



Large Duck-orchid, *Caleana major*



Bronze Caladenia, *Caladenia transitoria*

Peter Sedgwick

Sparrow Ground Excursion 11th Nov

With more incentives to do local walks, I have discovered the beauty of this small reserve this Spring. It has been a blaze of colour with various pea plants and a large number of other species. Each visit I have taken the camera and later uploaded flowering species onto iNaturalist (in the Project “FNCB - Sparrow Ground”).

Unfortunately the excursion afternoon turned out stormy and a bit



wet. However, our intrepid group still spent 1.5 hrs exploring. Many of the flowers were past their best, such as, on the north side of the oval, the many Salmon orchids, *Thelymitra rubra* and Spotted Sun orchids

Thelymitra ixioides. However we found a number of Common Onion orchids *Microtis unifolia* (see above).

Other plants in profusion were Chocolate Lilies, Milkmaids, Trailing Goodenia, Common Rice flowers *Pimelea humilis* and Yellow Rush Lilies have recently started flowering.

On the Richard St side there has been a “garden” filled with Button Everlastings, pink and white Trigger plants, Slender Rice flowers, Common Beard Heath and more. Across Richard St in the “Jumps” area, there is a second very attractive section. Grey Everlastings – actually yellow, are in full flower now. Bright orange clumps of Trailing Shaggy pea are flowering by the road side. All agreed we should plan another excursion there in 2021 around late October.

Val Hocking



Common Rice-flower (*Pimelea humilis*) at Sparrow Ground Reserve

One of the very first post-lockdown excursion Mt. Beckworth, Nov 8th, 2020 (Report on p.7)



Migratory Capers in my Garden

In Alfredton we experienced during late October and early to mid - November this year, a large influx of Caper White Butterflies (*Belanois java teutonia*) into our garden and nearby open spaces. Distinguished by white wings with wingspan of 55mm and with black terminal bands containing white spots from the slightly smaller Cabbage White Butterfly (*Pieris rapae*) wingspan 46mm which has white wings with a black apex to the forewings with one (male) or two (female) central black spots.



I observed that these butterflies seemed to be particularly attracted to my flowering native and introduced Pelargoniums, no doubt seeking the sustaining nectar in their flowers. On a morning stroll around my neighbourhood over nearly 3km I observed close to 50 Caper Whites. As I write up these observations (late November) the numbers of Caper Whites appeared to have already diminished (although not the Cabbage Whites which are still flocking to my Brassicas).

The main host plant group for the Caper White, as the name suggests, is the plant family Capparidaceae (Caper Family). Braby lists some of the larval food plants for this species in Australia as *Capparis canescens* (coastal Qld), *Capparis mitchelli* in arid areas, *Apophyllum anomalum* (western NSW) and also *Capparis lasiantha*, *C. sepiaria*, *C. spinosa*, *C. umbonate* and *C. arborea*.

If you search VicFlora web site you won't find these names as none of these species are found naturally or as naturalised plants in Victoria.

Breeding of Caper Whites does not usually occur in Victoria but occurs to our north where suitable food species occur. However, this is a common migratory species that does occur quite regularly in Victoria in most years (Field). There are large migrations to Victoria and in certain years even as far south as Tasmania.

According to Field, the large migrations into Victoria are likely to result from breeding in Queensland and central Australia where plant densities are high. The onset of warmer north wind days transports the Caper Whites south. Breeding can occur in Victoria on ornamental plantings of *Capparis* such as *Capparis lucida*. There are even a few small commercial farms growing capers in Victoria, the nearest to Ballarat that I am aware of is at Bealiba.

It would be interesting to know if the large influx this year results from the drought breaking rains earlier this year to our north and subsequent recovery of their food plants

Further Reading:

Michael F. Braby 2004 *The Complete Field Guide to Butterflies of Australia*, CSIRO

Ross P Field 2013 *Butterflies: Identification and life history*, Museums Victoria

Garry Sankowsky 2020 *A Field Guide to Butterflies of Australia*, Reed New Holland

Andy Arnold

Elbow orchids in Enfield State Forest—Nov 25th, 2020



Photos: Emily Noble

Field Report



Rufous Whistler *Pachycephala rufiventris*
at Clarksdale Bird Sanctuary

The Rufous Whistler mainly eats insects, and sometimes seeds, fruit or leaves. It usually forages at higher levels than other whistlers and is seldom seen on the ground.

Rufous Whistlers breed in monogamous pairs with both sexes incubating eggs and caring for the young. The female builds a fragile, cup-shaped nest from twigs, vines, grass and other materials, bound and attached to a tree fork with spider web. Two broods may be produced in one season.

The Rufous Whistler is one of Australia's finest songsters and its far-carrying, rich, musical song can be heard across Australia. The song is characterised by repeated whip-cracks, interspersed with a variety of whistles and trills, of various volumes, tempos and rhythms.



Photos:
Carol Hall

Field Report



For one rare day only, the reclaimed grassland woodland on our property at Grenville was spectacular. While we sweated on the first day of heat in November, dozens of clusters of gobsmackingly gorgeous, multi-headed Forest Sun-orchids, *Thelmytra arenaria*, and (right) patches of Tiger Orchids, *Diruis sulphurea*, glowed in profusion. There was the odd stunning Spotted Sun Orchid, *Thelmytra ixioides*, and some Pale Sun



Orchids, *Thelmytra pauciflora*, amongst Common Rice Flowers, Pale Everlastings, Milkmaids, Chocolate Lily and Triggerplants. Bulbine Lilies were waning, while Onion Orchids and the first of the Pincushions burst into being amongst the various native grasses (*Stipa*, *Themeda*, *Microleana*, *Austrodanthonia*). Such numbers, in sync, is a rarity. Perhaps the coincidental timing occurred due to the unusually wet winter/spring. Plenty of varied insects and spiders are turning out to add to the interest.



Who can resist a Satin Green Forester Moth?

Various Metallic Wood-boring Beetles (*Castiarina* sp., in the family Buprestidae, are turning up.



Jenny Sedgwick

Big News on the Excursion front!

Our regular venue is not allowing groups to gather just yet, and we have reluctantly cancelled the December meeting. Instead, we offer three excursions in the coming weeks starting on **Sunday Dec 6th** with a **Grasslands ramble at Victoria Park**. This is an afternoon trip followed by the traditional break-up picnic tea at the southern end of the Park. Start at 3.30 pm. More details via email.

Next is a trip to **Clarksdale Bird Sanctuary** with a focus on **Nesting Birds**. Emily reports that there is plenty of activity to see, but a lot depends on the weather. This is scheduled for **Tuesday 8th Dec**. Time to be advised.

The final excursion is to **Creswick Regional Park in search of the Elbow Orchid**. This is on **Tuesday 15th Dec** from 10.00 am. BYO lunch at “corroboree” site near Slaty Creek. Details soon.

There are currently no number limits for these excursions.

Please note that these events are all outdoors, so be prepared with clothing and footwear suitable for the conditions. Bring water, sun-screen, hand lens, snacks, camera, binoculars, hand sanitiser, etc. Some COVID 19 restrictions still apply, so please bring a mask and keep 1.5 m distance between people. Of course, if you are not well or suffering any flu-like symptoms, please stay at home.

*We hope to be able to provide regular meetings
& speakers very soon in 2021!*

Committee

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Meetings (live) are cancelled until further notice due to COVID-19.

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