

The Ballarat Naturalist

December 2019



2019 Stella Bedgood Memorial Lecture presented by Craig Whiteford, Zoos Victoria

Craig started his engaging talk by presenting some statistics about Zoos Victoria. There are three sites across Melbourne – Royal Park, Healesville and Werribee; at over 290,000 members it is the 3rd largest member-based organisation in the state, behind Ambulance Victoria and RACV; 900 volunteers give 84,000 hours of service to the work of the zoo; 2.75 million in 2018/19. Craig attributes the zoo's continued growth and popularity to having strong vision & direction. The purpose of the zoo is "Fighting Extinction" and, of course, animals are at the centre of planning and operations, giving them purposeful lives. This philosophy means the zoo has transformed itself from a "zoological park", collecting and displaying animals into a conservation organisation. Zoo based conservation is altruistic in its outlook.



It is founded on sound ethical principles of sustainability and compassionate conservation, so zoo animals have very high states of welfare. Zoo operations contribute biodiversity gains through improved community understanding and action sound biological, behavioural and veterinary services.

The zoo has two 25-year Conservation Master Plans, one for Wildlife and one for Community. The wildlife conservation arm is about increasing the numbers of animals in the wild. Coupled with the community conservation arm, the aim is to reduce human induced threats. Plans are bold and willing to try new things.



Zoos Victoria has a wide range of campaigns, programs and projects both in Australia and internationally aimed at halting extinctions and threatening processes such as mining. 27 Threatened Species are targeted in captive breeding programs including mammals, birds and invertebrates Research forms a big part of the zoo's efforts and some good results are being realised. One example is female mate choice where researchers have found that females actively choose certain characteristics of males – and such choices affect breeding success. It is important to allow this behaviour to continue in captive breeding attempts – and in the wild. That is why the zoo has also developed predator awareness training for species like the Helmeted Honeyeater, so they have a better survival rate once realised into their favoured habitat.

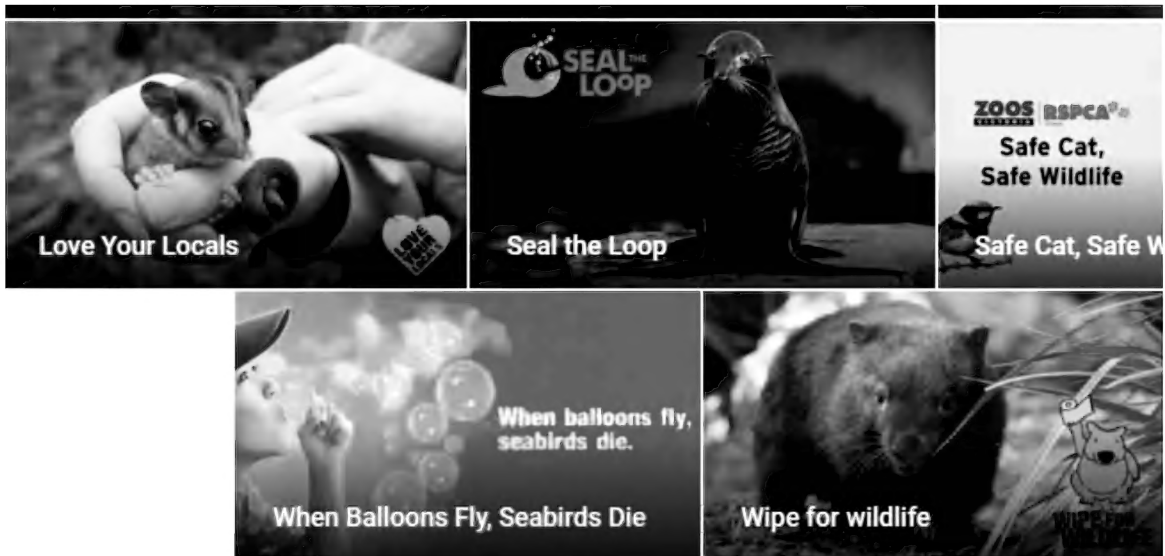
Programs involving dogs have followed on from the very popular and successful Maremma guards protecting Little Penguins near



Warrnambool. Other dogs are being trained to sniff out threatened species during surveys – having a much enhanced ability to find individuals in large areas of often difficult terrain with very small populations. Dogs are successfully locating threatened Baw Baw Frogs

in the high country and they will soon be helping to find Plains Wanderers to assist with more breeding.

Finally, Craig highlighted a number of publicity campaigns designed to involve the community in the work of the zoos. The aim is not simply to raise membership or attract funds, but here are wider environmental goals as well. Of interest were “They’re Calling On You”, where people are encouraged to donate their mobile phone to help generate funding for protection of Lowland Gorilla in Africa; “When Balloons Fly” aimed at stopping pollution and injury of seabirds by synthetic rubber balloons and the plastic used to tie them. People are being encouraged to blow bubbles instead when celebrating; “Wipe for Wildlife” which is all about using recycled toilet paper, or more correctly, loo paper made from recycled paper! Another campaign uses citizen science to help protect Mountain Pigmy Possums by tracking Bogong moths, a major food source. This is basic research aimed at getting a better understanding of the ecology of the species. All of these programs and campaigns are available to view and interact with via the Zoo website.



MOBILE PHONES

Donate your old mobile phones to Zoos Victoria. You can post them for free, or if you have over 10, they can be picked up. Drop off at UFS Pharmacies in and around Ballarat as well as selected Vets and other places in Ballarat...



check the Zoo website for details
Visit
zoo.org.au/callingonyou..

Many other programs are aimed at education, particularly in schools, but also for volunteers. In the next 5 years, the zoo will continue to invest in conservation worldwide, and learn from the traditional owners of the land who have unique insights into the conservation and management of flora and fauna. Plans are also in place to deal with the changing climate, through innovative responses to protect animals.

Animal welfare is an important item on the future agenda and make better use of emerging technologies to assist conservation efforts. Involving the public through membership, visitation, volunteering, citizen science and publicity campaigns is also a focus, as is partnering with a wide range of conservation organisations such as Birdlife, Trust For Nature, CMAs, Bush Heritage and many more. Craig noted the enormous number of partners throughout Australia and the world that the Zoo relies on – there are hundreds.

Next time field nats visit one of our great zoos, we will have a much better appreciation of the amount of work and the conservation focus that the zoo now has – to ultimately benefit the animals and the planet, thanks to Craig and his passion.

Final Excursion of 2019! Sunday 8 December

Visiting Creswick's Indigenous Park; La Gerche Trail, followed by a Christmas Tea party.

All members and Junior Field Naturalists Group are most welcome.

1.30 pm. Carpool and depart from Fed Uni carpark, Cnr Gillies & Gregory St.

2.00 pm Meet Prof Kevin Tolhurst at Indigenous Walkabout Park, about 300m along Park Lake Drive (off Bridge St), and north of Creswick Tennis Courts.

3.00 pm Park at Parks Victoria Compound in La Gerche Gully - for 2.2 km walk around the La Gerche Trail - and sign maintenance work.

Late arrivers will have to park in the public/upper Carpark.

4.45 pm Convene at PV Picnic area and seminar room for Christmas tea party.

BYO food, drink, etc.

Junior FNCV Camp at Scarsdale

A small group of FNCV junior members and their families camped in the bush at “Stringybark”, Scarsdale over the Cup Day weekend. Bill Elder took the group to Devil’s Kitchen at Piggoreet to view the nesting Peregrine Falcons which was a highlight of the camp. Keen birdwatchers, the group also visited a very dry Misery Creek area in Enfield State Park., again led by Bill. Emily Noble gave her presentation on wild orchids on Sunday evening and the group enjoyed Emily’s fabulous photos. Much of the weekend was spent exploring Stringybark and discovering eucalypts, orchids, colourful flowering plants, birds, frogs, spiders, lizards and nests—a typical menu for a field naturalist’s campout.

Devil’s Kitchen 2.11.19

Peregrine Falcon
Black Kite
Wedge-tailed Eagle
Long-billed Corella
Sulphur-crested Cockatoo
Galah
White-faced Heron
Superb Blue Wren
New Holland Honeyeater



Setting up on Saturday

Enfield S.P. 3.11.19

Olive-backed Oriole
Crimson Rosella
Eastern Rosella
Rufous Whistler
Pallid Cuckoo
Fantailed Cuckoo
Spotted Pardalote
Striated Pardalote
Restless Flycatcher
Sulphur-crested
Cockatoo
Grey Fantail
Striated Thornbill
Black-faced Cuckoo-
Shrike
White-throated Treecreeper
Long-billed Corella
Pobblebonk Frog



A curious Cocky
checking out the juniors at Enfield

More News for Juniors

Plans are underway to hold a camp especially for Junior Field Nats at the Naracoorte Caves National Park over the Easter weekend, 2020 that's April 10 to April 13. This is being organised by the Field Naturalist's Club of Victoria, based in Melbourne.

Accommodation options - bungalow/dormitory style (4 people per room, a couple will fit 5 or 6) OR under canvas.

If choosing bungalow, the cost is \$85 per room per night, and you need to decide quickly and contact the Melbourne convenor Patricia Amaya *by Dec 15*.

If tenting, most sites are powered, book online **asap**, then advise Patricia—her email is fncv.junior@gmail.com

Activities will include the obligatory guided tour of the caves (own expense), plus Easter Bilby hunt, scavenger hunt, microscopes will be available, drawing and/or photo competition and of course, a camp fire concert.

Bill Elder will be attending and encourages Ballarat juniors and their families to consider coming along.

There is a deadline, so don't delay!

Carlisle Heath Excursion

Five Ballarat field nats travelled to Carlisle River to meet fifteen Geelong field nats at the Carlisle River Recreation Reserve. After meeting our leader, Barry Lingham, introductions were made and morning tea was enjoyed.

We visited several areas of heathland and some areas of heathy woodland with scattered eucalypts. Before lunch we went south to Westwick Rd. In the afternoon we travelled towards Gellibrand, stopping at many places of interest. The heathland is dense and shrubs up to 2 metres high so most observation was done from walking tracks

Some interesting plants were Button-grass *Gymnoschoenus sphaerocephalus*, Woolly-Style Heath, *Epacris lanuginosa*, Swamp Honey-myrtle *Melaleuca squamea*, Wiry Bauera *Bauera rubioides*, and Otway Bush-pea *Pultenea prolifera*. Many wattles and teatrees were flowering.

FNCB will invite Geelong FNC to attend one of our excursions in 2020.

John Gregurke

An appeal from Trust For Nature

Some of Victoria's natural places are protected in national parks and state reserves. But many crucial places are on private land and at risk from changing land use.

Conserving precious habitat on private land is one of the most important actions we can take to prevent species extinction and protect our natural heritage for future generations.

We're proud to work with Victorians who value conservation. And we're so grateful to everyone who takes action to protect our natural places.

This Christmas, we're hoping to raise significant funds to support more covenants in looking after precious wildlife and natural places on their properties. Can you "chip in?"

A significant amount of Victoria's most important remaining habitat is on private land. From tall forests to grasslands, wetlands to coastal scrub, these are the places we need to protect so future generations can also experience the natural wonders we know and love. That's why a key goal in our strategic plan is to add a further 50,000 hectares to Victoria's protected network as soon as possible.

With the help of generous supporters, we've already put in place 1,459 covenants that protect over 67,000 hectares of ecologically significant private land.

It's important that everyone who wants to place a covenant on their land can, without money being a barrier. That's why Trust for Nature covers these costs for landholders – with the help of people like you.

A small number of volunteers have been assisting the ongoing vegetation monitoring at Woorookarung Regional Park over the last month or so. FNCB has established 17 photo points throughout the park and every 3 years the site is surveyed for plants and their relative abundance. This is done to gather empirical evidence of the changes in flora to support the photographic evidence of those changes.

Many thanks to the Field Nats who have taken part in this task, undertaken over three of four separate sessions, under the leadership of John Petheram.



VALE Peter Billing

This month brought the sad news that Peter Billing had passed away, quite suddenly. Peter was a devoted member of FNCSB and also the Anglican Church in Lydiard St South in Ballarat. Over 100 friends attended his funeral service, including a dozen FNCSB members.

He had a BSC in Biological Science from Monash Uni and worked in a range of positions, in Canberra and in Victoria. But his health made it very hard for him to retain long-term positions.

The following comments from fellow field nats sums up Peter's character and popularity.

"I spoke to him after the October meeting. He sent me my first Christmas card every year since I was elected to Parliament and was always ready for a cheerful conversation. He will be missed.

Geoff Howard"

"A gentle soul with a kind heart who felt he belonged here. Peter was always welcome at meetings or excursions and he has always keen to listen, take notes and ask questions. An inspiration to all Field Nats. *Bill Elder*"

"A very polite and friendly man it's been an honour to have known him and call him my friend. *Wayne McGuire*."

"Peter was a member of the Field Naturalists Club of Ballarat for over 20 years, and always attended Club events if he could possibly get there.

He studied science at university and had strong interests in biology. His questions to speakers helped to enliven our meetings.

Peter maintained a very strong bond with members, making a point of sending Christmas Cards to long-time Naturalists each year.

It was sad to see Peter's health and physical strength declining over the years, though he kept coming to join us on Friday nights until October this year.

Our deep sympathies go to his family and friends.

John Petheram"

Peter John Billing

18th February 1948 – 2nd November 2019



November Excursion The Geomorphology and Geology of Conglomerate Gully near Riddells Creek

Conglomerate Gully falls within the eastern end of the Macedon Range just west of Riddell township in the mapped area defined as EsS5 in the Land Conservation Melbourne Study Area District 1 Review Report (June 1985) Geomorphology map. This Flora and Fauna Reserve area which was donated to the public and the Mt Charlie area (which we did not visit) have the topographic features described as very steep ridges and aureoles with the parent material being mainly metamorphic rocks.

A **metamorphic aureole** is the zone around an igneous mass within metamorphic changes, where mainly thermal effects have occurred. The Gully stream has eroded and formed a steep sided gorge through the conglomerate formations and today is a tributary of Riddells Creek. The soils in this area tend to be very shallow and relatively infertile and we observed that in the gorge area there was noticeable dieback in some of the trees.

The geology map contained in the Land Conservation Melbourne Study Area Report Volume 2 (December 1973) shows this area (**at that time**) mapped as Du – Upper Devonian Non-marine sandstone, conglomerate, red sandstone, mudstone. The conglomerate outcrops were mapped **originally** as **Kerrie Conglomerate** in the Geology and Petrology of the Macedon District by O.P. Singleton in the Regional Guide to Victorian Geology Chapter 11 (1973). It rests unconformably upon the Ordovician and is believed to have been derived from the Riddell Grits (Silurian?). Singleton gives it as “unknown age” but more recent work regards it as being from the **Lower Devonian** [Vandenberg (1978)]. Vandenberg in his paper on the Tasman Fold Belt System in Victoria has a diagram of lithofacies (facies particularly characterised by rock type) showing Kerrie Conglomerate as Lower Devonian in the Bendigo Zone, near the eastern boundary with the Melbourne Zone (boundary is defined by the Heathcote Fault). In a later paper Vandenberg et al (2000) refers more generally to the **Kerrie Group**. It is likely to have occurred before the **Middle Devonian Folding** (Tabberabberan Orogeny) and the **Central Victorian Cauldron Subsidences** including the nearby **Macedon Igneous Complex** (dacite) which occurred in the Upper Devonian.

Those who attended the excursion will remember the diagrams of the latter from the information display at the entrance to the Reserve. Vandenberg (2003) remapped the rocks of the Kerrie Group as part of the Lancefield 1:50,000 geological map. His map shows two mapped units with an overall thickness of 900m.

The basal member of the Kerrie Group is now known as the **Goat Rocks Conglomerate (Srg)**. (Goat Rocks was the original name of the property before it was reserved).



Large boulder of Goat Rocks Conglomerate 1

Conglomerate Gully is recorded as the type locality for the Goat Rocks Conglomerate. Massive pebble to boulder conglomerates characterises this formation with a closed framework of sandstone, quartzite, chert, and gritstone clasts which create the structures we observed on our walk through the gorge where erosion has exposed this very spectacular landscape.

The Kirribilli Sandstone is the other member of the Kerrie Group and interfingers with the Goat Rocks Conglomerate on a large scale which may account for some of the rocks in the gorge which we observed were not conglomerates.

Andy Arnold.



Riddells Creek Excursion 3 November 2019
Leader: Andy Arnold

A small group of six field naturalists travelled to Riddells Creek for the November excursion. We were greeted on arrival in Riddells Creek by a group of about 30 geese, half of which were young goslings. The geese have bred up on an urban lake and graze on the wide nature strips at the edge of the main road through town.

We visited Conglomerate Gully Flora and Fauna Reserve managed by Parks Victoria. The 85 ha reserve was declared in 1990 after being donated to the state by a local family.

Conglomerate Gully has large exposure of conglomerate rocks along a creek valley. An interpretation sign at the entrance explained the geology and history of the reserve. Heathy Dry Forest and Grassy Dry Forest vegetation types are found in the reserve with Broad-leaved Peppermint *Eucalyptus dives* and Messmate *Eucalyptus obliqua* forming the canopy



View of Gorge of Conglomerate Gully

An Echidna was seen across the gully. Birds seen included Grey Fantail, Grey Shrike-thrush, Crimson Rosella, Superb Fairy-wren, Black-Faced Cuckoo-shrike and Sacred Kingfisher.

More images from Congolmerate Gully, Riddells Creek



Very large boulder covered in lichens



Bush Shelter near lookout

As we entered the reserve Chocolate Lily *Arthropodium strictum*, Purplish Beard-orchid *Calochilus robertsonii* and Tiger Orchid *Diuris sulphurea* made a colourful display. Black Wattle *Acacia mearnsii* was also flowering. We identified many smaller plants including Sheep's Burr, Bidgee-widgee, Rock Fern, Common Bird-orchid, Love Creeper, Rough Bedstraw and Dwarf Sunray. Hoary Sunray *Leucochrysum albicans ssp albicans* with yellow flowers were scattered through the grassy areas. Along the main gully were Hazel Pomaderris and Shiny Cassinia.

After late lunch in Riddells Creek we went to an area of bushland on the western edge of town. This particular area had been surveyed in 1950's as house blocks but has never been developed. Names given to the surveyed roads include Royal Parade, Princess Street and Prince Alfred Street but they remain as bush tracks.

Some interesting plants we added to the plant list in the afternoon were the local trigger-plant, Hairy Trigger-plant *Stylidium armeria subsp pilosifolium*, which has smaller flowers and hairy leaves compared to the trigger-plants around Ballarat. Cherry Ballart had edible ripe fruit which is actually the swollen stem of the flower with a hard seed at the tip. Narrow-leaf Bitter-pea had a few late flowers and triangular seed pods. A Musk Daisy-bush had Common Apple-berry and Love Creeper twining through its branches.

Thanks to Andy for researching and leading such an interesting excursion to these places outside our local area.

John Gregurke



Love Creeper *Comesperma volubile*

“The Rat Nats”

Junior Field Naturalists’ Group Page Off with the Birds...



Max, Leon and Bill enjoying
the good birding weather

This month we had a chance to view some bush birds and the day was perfect, weather-wise. We had three young ones, including Max and his Mum who were first time ‘Rat Nats’. We checked out a poster of common garden birds and saw that quite a few of them could be found at Stringybark, so we set out to try and find them. There were plenty of calls which led us to see a couple of sacred kingfishers up close. Later we also saw a fledgling which was a good sighting. Our first stop was a Tawny Frogmouth on the nest—the first time Max had seen one in the wild.

We also saw White-plumed Honeyeater, Australian Magpie, White-winged Chough (on a nest), Restless Flycatcher, Crimson Rosella, Superb Blue Wren, Olive-backed Oriole, Grey Fantail, Grey Shrike-thrush, and Spotted Pardalote. We heard plenty of Rufous Whistlers calling but the highlight of the day was finding a Black-faced Cuckoo-shrike on a nest (p.15). This was the first record of this species nesting on the property.

Even better was the discovery of two Tawny Frogmouth chicks (see page 15 opposite) which Bill found when viewing photos of the day. A zoom-in on the computer revealed two little balls of fluff next to mum - something we didn’t pick up when viewing with binoculars from the ground!



Black-faced Cuckoo-shrike (*Coracina novaehollandiae*) on the nest



Tawny Frogmouth (*Podargus strigoides*) mother and chicks

CALENDAR 2019/2020

December

Fri 6 Plugging a Gap: Restoring Wetlands in south-west Victoria.

Greg Kerr, Nature Glenelg Trust

Sun 8 (pm) La Gerche Trail & Creswick Christmas Break-up

John Petheram, FNCB (Junior Group to join in this event)

February 2020

Fri 7 Animal responses to fire

Julian Di Stefano, Uni of Melbourne

Sun 9 Mt. Widderin geology & Skipton Common

John Petheram, Emily Noble FNCB

March

Fri 6 AGM & Members' Images "Not what it seems"

Sun 8 Western Treatment Plant Birds, Werribee

John Gregurke, FNCB

Committee

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	Bill Elder
	Les Hanrahan
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	Margaret Rich
	Elspeth Swan

Correspondence: PO Box 328W, Ballarat West, 3350

Email: Secretary:- Emily Noble

Editor: Bill Elder

Website: <http://fieldnatballarat.wordpress.com>

Club email: ballaratfnc@gmail.com

Meetings are held at Federation University Gillies St Campus on the first Friday of the month at 7.30pm.

Excursions: Leave from the carpark of Federation University Gillies St Campus at 9.30 am, unless otherwise advised.

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