

Latrobe Valley Naturalist

January – February 2020

Issue No. 606

Print ISSN 2208-4363 Online ISSN 2208-4371

Office bearers

President: David Stickney Secretary: Rose Mildenhall Treasurer: David Mules Publicity Officer: Alix Williams Magazine editor: Tamara Leitch Conservation Coordinator: Denis Nagle Archivist: Marja Bouman Webmaster: John Sunderland

Contact

The Secretary Latrobe Valley Field Naturalists Club Inc. P.O. Box 1205 Morwell VIC 3840 info@lvfieldnats.org 0428 422 461

Website

www.lvfieldnats.org

General meetings

Held at 7:30 pm on the fourth Friday of each month at the Newborough Uniting Church, Old Sale Road Newborough VIC 3825



A leaf beetle in the genus *Trachymela,* observed at Mathison Park during our excursion with Martin Lagerwey in September 2019 (Photo: Matt Campbell).

Upcoming events

<u>Club Summer Camp</u>: 31 January – 4 February 2020 at Cape Paterson <u>Botany Group</u>: Saturday 8 February – Indoor study of grasses. <u>Bird Group</u>: Tuesday 11 February – Twilight birding (5 pm) at private property in Coalville. RSVP Joelle for details 0459 504 305. <u>February general meeting</u>: Friday 28 February Invertebrates, biodiversity and the Plague Ape – Max Campbell <u>February excursion</u>: Saturday 29 February – Jean Galbraith Flora Reserve & Wirilda Environment Park. Details TBC. <u>Bird Group</u>: Tuesday 3 March – Moe WWTP and Sweetwater Creek NCR at Shady Creek. RSVP Joelle. Meet 8.30am at the Treatment Plant off Old Sale Rd in Moe. <u>Botany Group</u>: Saturday 7 March – Flora survey at Rose's bush block in Jeeralang North. Details TBC. <u>Bird Group</u>: Thursday 12 March – EA Wetland survey. Meet 8.30am at Morwell Bridge gate. Wear long pants and boots.

Issue no. 606

The wonderful world of leaf beetles

The speaker at our September meeting was Martin Lagerwey, an amateur entomologist with a degree in biological sciences. He chose to dedicate his time to studying leaf beetles because he found there was a good opportunity for him to contribute to scientific knowledge of these creatures; the colour of many species fades upon death, resulting in museum specimens being misidentified, or labels on type specimens mixed up, and beetle experts have identified a need for them to be redescribed – colour photographs of specimens can assist greatly with this task.

During his talk, Martin briefly covered all of the subfamilies of the Chrysomelidae (leaf beetle family), then all of the genera of the subfamily Chrysomelinae (broad-bodied leaf beetles), which is the group he mainly focuses on. In Australia, there are currently 10 genera and 760 species within this group (out of a total of 236 genera and 2500 species of leaf beetles in Australia).

For most chrysomeline species, both the adults and larvae eat leaves, and the larvae pupate in leaf litter on the ground; members of some other subfamilies pupate in pieces of dung, some also eat flowers – even buds before they open – or seeds. Several native species have become pests in monoculture timber plantations in Tasmania, New Zealand and Europe due to their ability to reproduce quickly and a lack of predators. The beetles are toxic to most animals (the larvae of some species even have eversible abdominal glands that produce hydrogen cyanide as a defence against ants), however they are predated within their native range by the larvae of parasitic



Paropsis pictipennis, Thomson Dam (Photo: Tamara Leitch)

wasps whose populations fluctuate with environmental conditions. Some leaf beetles have also been imported to Australia as biological control agents for weeds such as *Sida acuta, Hypericum perforatum* and *Lantana camara*, with some success.

Martin went into some detail around the anatomy of the beetles and features that may be used to aid in species identification. Although most species can be identified from good photos, some species look identical and require examination of the prosternal process (chest plate) or male genitalia (apparently these are quite large in relation to the size of the animal) to distinguish them. Some other useful features include whether the edge of the pronotum (plate covering



Dicranosterna immaculata, Morwell NP (Photo: Tamara Leitch)

the thorax) is wavy or smooth, and whether the elytra (wing cases) are covered in warty bumps or have punctures that are arranged in rows or randomly distributed. Some genera have sensory hairs called setae on their shoulders that provide the same function as a cat's whiskers. Some species change colour as they age, or depending on what they are feeding on. The larvae are unique for each species, and even the arrangement of eggs can provide an indication of species (eg. laid flat in a raft, or standing on end). Males can be identified by the first tarsal segment on their front two pairs of legs being broadened into a pad and sticky, enabling them to climb onto the females in order to mate.



Larva of *Paropsisterna hectica*, Mt Buffalo (Photo: Tamara Leitch)

When looking for leaf beetles in the field, Martin places a beating tray (a purpose-built device made from two short tent poles arranged in a cross shape, with the ends attached to the corners of a square cloth, enabling it to collapse for storage) underneath a bush and whacks the bush with a stick to dislodge any insects in the foliage. He also holds the tray horizontally against a tree while peeling off bark to dislodge insects, as many of the beetles hide under bark during the day. Permits are required to do this in Victorian parks.

Particularly good plants to search on are wattles, young eucalypts and even bottlebrushes and teatrees, depending on which beetle species you are targeting. Leaf beetles often feed by hanging onto the edge of a leaf and taking 'moon-shaped' bites out of it, which differs from other kinds of beetles such as weevils that tear the edges, and scarabs that tear zigzag patterns out of the middle.

Martin's passion for this group of beetles was evident by the animated way in which he presented his topic. He has travelled extensively to the remote corners of Victoria, and found many species in very specific locations or associated with specific food plants. If species distributions can really be as limited as they appeared to be, I think it's an exciting prospect to consider what new species could be discovered simply by looking in our own backyards.

Tamara Leitch

Excursion to Mathison Park 28.09.2019

Martin Lagerwey, who had been our guest speaker the previous evening, led our excursion at Churchill's Mathison Park.

He began by passing around to us a series of booklets, showing his excellent photos of these very colourful leaf beetles, which he plans to publish in the near future.

Then, armed with a short stick and a homemade catching cloth that folded up like an umbrella, Martin set off around the lake. He shortly stopped at a eucalypt, grasped a bough, placed the catching cloth underneath and lashed the leaves with his stick. As we crowded around we were surprised to see a very large variety of small insects, bugs, spiders and leaf beetles in the cloth. Cameras came out, and magnifying glasses were produced, as we viewed this amazing collection.



Paropsisterna nigerrima at Mathison Park (Photo: Martin Lagerwey)

We moved on to an Acacia tree where this procedure was replicated,

also with good results. By this time, some members moved off and began to bring back other insects for Martin to identify. Rhonda found a flea beetle under the bark, and a colourful Tussock Moth larva was most admired. Martin showed us a grey stick insect usually found on wattles, and among many other insects he identified a Horned Bug and a Green Shield Bug on a tea-tree.



Omnivorous Tussock Moth *Acyphas semiochrea* (Photo: Tamara Leitch), Horned Bug *Deroploa parva* and Leaf beetle *Peltoschema hamadryas* (Photos: Ken Harris) at Mathison Park.

An interesting fact Martin mentioned was that foxes and owls eat the nocturnal black leaf beetles that live under the bark.



Examining the contents of the catching cloth (Photo: Tamara Leitch).

After lunch at the park, several members joined Martin at Billys Creek in Morwell National Park where many more leaf beetles were found and identified.

Thanks go to Martin for opening our eyes to this amazing insect life in our trees and shrubs.

Meryl Cracknell

SEANA spring camp at Castlemaine

The SEANA Spring Camp hosted by the Castlemaine Field Naturalists Club (FNC) over the extended weekend of 4-7 October 2019 attracted one of the largest numbers of naturalists in recent times – many host club members plus 116 folk from other clubs took part, and it was good to see 14 members of our Club and a good few from Sale & District FNC. The Campbells Creek Community Centre, on the southern fringe of Castlemaine, proved an excellent base for registration, meetings, excursion departures, and talks and evening meals on Friday and Saturday.

The Castlemaine region includes extensive box-ironbark woodlands, largely regrown after the devastating impacts of gold mining from the second half of the 19th century. Good winter rains resulted in a profusion of wildflowers and flows in the Loddon River, local creeks and dams to support birds and other fauna. Our hosts drew upon all this and the geological points of interest to provide an extensive program of thirty excursions across the weekend and Monday morning. This range had been expanded in the final stages of planning to accommodate the much larger than expected enrolment.

Following the welcomes on Friday evening, the guest speaker was well-known ornithologist Tanya Loos whose talk was entitled "Monitoring Connecting Country's habitat restoration program through bird surveys". Connecting Country is a community-driven landscape restoration project based in Castlemaine which aims to enhance and restore biodiversity across the Mount Alexander region. Supporters and partners include Landcare, Trust for Nature, the North-Central CMA, DELWP and the Castlemaine FNC. Tanya outlined progress on this project over the past three years; she indicated that the extensive survey work being undertaken is providing some evidence of reversal, or at least stabilisation, of some bird species declines as a result of habitat improvement.

We were fortunate to have, as Saturday evening's guest speaker, distinguished scientist Professor Tim Entwisle, the Director of the Royal Botanic Gardens Victoria since 2013, having previously held senior roles in the Kew Gardens and Royal Botanic Gardens Sydney. His engagingly presented and erudite talk was entitled "Joseph Banks and his Cabinet". We are nearing the 250 year anniversary of the first sighting of the east coast of Australia from Cook's *Endeavour*, and Tim traced the significance of Banks' collection made during that voyage.

Here are brief outlines of just four of the field trips, to give an indication of the breadth of the camp program:

Kalimna Park wildflowers, led by Rosemary and Peter Turner

Kalimna Reserve extends along the high ridge to the east of the Castlemaine township and may be accessed from Lyttleton Street. The most common eucalypts here are Grey Box and Red Box. Prominent among the shrubs in flower were Rough Mint-bush *Prostanthera denticulata* and Downy Grevillea *Grevillea alpina,* both growing in profusion. Fairy Wax-flower *Philotheca verrucosa* and carpets of Waxlip Orchids *Glossodia major,* along with many Leopard Orchids *Diuris pardina,* made for a spectacular show.



Rough Mint-bush (Photo: Phil Rayment)

Castlemaine geology, led by local geologist Clive Willman

On this excursion, entirely within the town area, Clive first took us back approximately 550 million years to when the land of this region would have been under Panthalassa or pan-Pacific Ocean that ultimately surrounded the supercontinent Pangaea. The folded layers of the sandstones and the mudstones above them could be clearly seen in a roadway cutting on Etty Street, on Norwood Hill near Castlemaine Secondary College.

We then inspected the famous anticlinal fold which was exposed when Lyttleton Street was constructed in 1874. This site is notable because the accompanying syncline is remarkably close, being just 6 m to the east. The final parts of the excursion provided some in situ examples of the use of local stone in the town's early buildings, fences and gutters. Clive also touched on the discovery of graptolite fossils from the Cambrian period (around 500 mya) in the Castlemaine area.

Wewak Track, led by Bernard Slattery and Jeremy Holland



Fryerstown Grevillea (Photo: Phil Rayment)

This site is located in the southern part of the Castlemaine Diggings National Heritage Park, Australia's first such park, declared in 2002. Of particular interest during our loop walk was the prostrate Fryerstown Grevillea *G. obtecta,* restricted to dry sclerophyll forest between Fryerstown and Daylesford.

Muckleford Forest, led by orchid expert David Elliott

This excursion focused on the Pipeline Track in Muckleford Forest, located between Castlemaine and Newstead, north of the Pyrenees Highway and south of the Castlemaine-Maldon Road. The Castlemaine FNC plant list compiled by the late Ern Perkins includes 213 species. The site visited was

particularly rewarding for orchids, in line with David's interests. We found veritable carpets of Wax-lips, the Bearded Greenhood *Pterostylis plumosa,* Musky Caladenia *Caladenia gracilis,* Hooded Caladenia *C. cucullata,* Purple Beard-orchid *Calochilus robertsonii* and, of interest to me, the Swan Greenhood *P. cycnocephala* which has multiple small, closely-packed flowers on a stem up to 15 cm in length. We also spotted many Finger orchids of the *Caladenia* genus.

All in all, Castlemaine FNC secretary Peter Turner and his team are to be commended for organising a very rewarding SEANA camp.

Philip Rayment

CLUB SPRING CAMP 2019 – Part 1

Our spring camp this year was to an area we had not visited before as a club, so was very popular with 33 people coming along. Our base at the Waterfront Holiday Park on the banks of Gunbower Creek at Cohuna was perfect for field naturalists as we were surrounded by water, trees and birds.

Terrick Terrick National Park – Saturday: Botany

This park consists of isolated granite outcrops surrounded by extensive areas of Northern Plains Grasslands. It has one of the largest, most intact tracts of indigenous northern plains vegetation in Victoria, which supports an abundance of wildlife.

Our first stop was at the Mitiamo Cemetery. The main tree cover was White Cypress-pine *Callitris glaucophylla* and it was remarkable that there were so many. Parks Victoria's Park Notes state that it is Victoria's most significant stand and many of the trees are over 100 years old. There were eucalypts scattered throughout, but only one species: Yellow Box *Eucalyptus melliodora.* The ground looked dry with sparse plant cover but it was surprising how many different plants we found, so many of them new to us. There were two *Ptilotis* species: Feather-heads *Ptilotus macrocephalus* and Pussy Tails *P. spathulatus.* As their common names suggest, both have fluffy heads for flower spikes.



Another fluffy-headed flowering plant that was common throughout the park was the introduced Hare's-foot Clover *Trifolium arvense var. arvense*, which had pink flowers and trifoliate leaves – such a pretty weed.

A grey-leaved New Holland Daisy *Vittadinia cuneata* with small purple flowers was common. The distinctive feature of this genus is a large calyx below the petals. Yellow daisies were *Xerochrysum bracteatum*, *Leptorhynchus squamatus* and *Chrysocephalum semipapposum*. A really pretty bluebell had distinctive golden backs to its petals making it unusually easy to identify (for bluebells) as *Wahlenbergia luteola*. There were scattered shrubs and small trees such as a pittosporum with a







weeping habit, covered in small yellow bells, *Pittosporum angustifolium*. It was harder to find flowers on the hakea, but the few flowers and fruits and the hooks on the ends of the leaves confirmed it as Hooked Needlewood *Hakea tephrosperma*.



Flannel Cudweed (Photo: Tamara Leitch)

Dwarf Bluebush *Maireana humillima* was a low growing saltbush with flat circles for flowers. A mat-rush we found was clearly different to ours at home with narrow leaves ending in two sharp points on the top; it was identified as *Lomandra effusa*. A tiny ground-hugging plant found in drier areas that fascinated me was Flannel Cudweed *Actinobile uliginosum*. It resembles little woolly balls clustered together, but each ball is a yellow flower in the centre of a tight ring of enclosing leaves.

En route to the nearby picnic ground we stopped briefly at a rocky rise

where the ground was carpeted with yellow flowering daisies, Common Everlasting *Chrysocephalum apiculatum*.

Morning tea and lunch were eaten at the picnic area and, in between, people had lots to see with walks, birds and plants aplenty. Mount Terrick Terrick was a short, but fairly steep, climb up granite

rocks where great views of the surrounding plains and rises could be seen, but holding onto the trig point was a good idea to prevent the strong wind blowing you over. In this area the cypresspines gave way to eucalypts and wattles: *Acacia deanei* was a small tree with greyish pinnate leaves like Silver Wattle and the eucalypts included Grey Box *Eucalyptus macrocarpa*. Pretty clumps of mauve-flowering Rock Isotome *Isotoma axillaris* were nestled in the rocks. The Rock Correa *Correa glabra var. glabra* had long pale red bells. A really distinctive mistletoe with grey leaves and flowers of upright brackets of pink tubes, Grey Mistletoe *Amyema quandang var. guandang*, was seen quite a lot.



Grey Mistletoe (Photo: Wendy Savage)

After lunch we drove to the Waterholes, an open area with scattered low granite rocks that contained deep pools of water. Paterson's Curse *Echium plantagineum* was everywhere – very pretty flowers and the bees love it. An interesting little prostrate herb with a yellow cup flower like a buttercup was *Sida corrugata*; it had five petals like a buttercup but was in a different family – Malvaceae instead of Ranunculaceae.



Rock Isotome (Photo: Wendy Savage)

Our last stop for the day was Mt Hope. This was an outcrop of immense blocks of granite and was climbed by Major Mitchell – its name derives from Mitchell's hope that he might see the ocean from its peak. Burke and Wills also camped there. No obvious tracks led to the summit, but those of us who made our way up there had great views of the area, including Kow Swamp.

Wendy Savage

Terrick Terrick National Park – Saturday: Birds

The first day at our spring camp was spent exploring a section of Terrick Terrick National Park, starting at Mitiamo Cemetery and convoying to the park from there. The day started well with sightings in the first few minutes of Red-capped Robin and Diamond Firetail, which are typically found in the drier parts of Australia. The predominant species we heard were Rufous Whistlers, which appeared to come from a number of directions, but some members also identified a female Golden Whistler.



We convoyed to Mt Terrick Terrick picnic area where we spent most of the day. We were fortunate to be joined by Tom Wheeler from Deniliquin who is a regular visitor to the park and was able to point out the best birding spots. Several people had seen large flocks of White-winged Trillers while driving into the park so it was no surprise to find a large flock close to the carpark. They are fairly widespread in drier eucalypt woodlands, but I have not seen such large flocks before.

White-winged Triller (David Stickney)

The parrots here were interesting. The most common species were

the Red-rumped Parrots which have bright-coloured plumage. The Crimson Rosellas here are a yellow form which has quite a small distribution and is one of six subspecies. The other parrot we saw was the Mallee form of the Australian Ringneck, which is one of four subspecies.

Several members told me their most sought-after bird was a Crimson Chat and they were rewarded with excellent views of both the male and female. The male has a brilliant crimson crown and underparts. My target species was the Gilbert's Whistler. I was very grateful to Tom who showed me some scrub habitat that the whistler preferred and, sure enough, we heard its call. It is normally silent for most of the year but has a rich, powerful call which it uses during the breeding season. With a little patience the male came out of the scrub and I was able to get a photograph. So, we had a trifecta of whistlers for the day.



Yellow Rosella (Photo: David Stickney)



Gilbert's Whistler (Photo: David Stickney)

Our next and final site for the day was a relatively brief stop at Mt Hope. The day belonged to the birds of prey. We saw six species at Mt Hope and an unprecedented 10 species for the day (11 in 24 hours if we include the hobby that flew over the campsite on the previous evening). We were greeted by a Peregrine Falcon as we drove into the carpark at Mt Hope. It continued to circle around during our stay, And, as Matt climbed to the top of the granite outcrop, he was swooped on a number of occasions. We believe there was an eyrie on a shelf on the granite face. If that was not enough excitement, a Little Eagle made a brief appearance

at the top of the hill. Brown Falcons were also observed, as well as the ever-present Black Kites and Whistling Kites. Alix spotted three Wedge-tailed Eagles in the distance from Mt Hope. The other

birds of prey we saw were a male Collared Sparrowhawk carrying its prey in Terrick Terrick, a Kestrel seen by most of us driving between sites, and a Spotted Harrier seen by Tom as he entered Terrick Terrick. To cap off the day, several members saw a White-bellied Sea-eagle on the drive back to the caravan park.

It was a great day for the birdwatchers and our thanks go to Tom who had driven from Deniliquin and spent all day with the group. I would also like to thank David who reconnoitered the area, Phil who prepared the program and Wendy for organising our accommodation and dinners. It was a most enjoyable spring camp.

David Stickney

Gunbower Island – Sunday morning

Gunbower Island is situated near Cohuna, 240 km north of Melbourne, and covers an area of about 24,000 ha, making it the largest inland island in Australia. The island is a long, shallow basin lying between the banks of the Murray River and Gunbower Creek, and is comprised of State forest (10,500 ha), Gunbower National Park (9,330 ha, proclaimed only in 2010) and River Murray Reserve (4,770 ha). Gunbower Creek is an anabranch of the Murray River; water from the Murray floods into Gunbower Creek at Torrumbarry Weir, near the town of Gunbower, and then back into the Murray River near Koondrook.

Gunbower Island is listed under the Ramsar convention as a wetland of international significance. The island is home to over 210 plant species, 140 animal species, 170 bird species and three species of freshwater turtles, and consists of a variety of vegetation groups including Black Box woodland, tall

River Red Gum forest, and semi and permanent wetlands, hence its diversity of inhabitants.

This is the country of the Barapa Barapa people. The name Gunbower is derived from their local aboriginal word *kanbowro*, meaning twisting or torturing, like the neck of a swan, referring to the twisting network of rivers and dry creek beds across the floodplain.

Major Thomas Mitchell explored the area in 1836. By 1840



Gunbower Creek at Koondrook (Photo: Tamara Leitch)

squatters took up grazing leases on Gunbower Island, followed by settlement blocks in the 1860s, and it was further opened up in 1894. Agriculture in its many forms – cattle grazing, dairy and market gardening – has now almost ceased on the island. A dairy buffalo farm 'Shannkirst' still operates there, but at one stage there were 13,000 sheep, 500 cattle and 50 horses. Some history since 1845!

Agriculture, however, is still a very important industry in the surrounding district. The latest figures tell me that, within the shire, 50% of the agricultural production comes from dairy and another 17% from livestock. Gunbower Creek and the Murray River, along with water from the Goulburn River Trough – an intricate system of weirs, locks and fish passages – form a very important part in the supply of irrigation water. The main demand for water is from August to May, so there is some discussion about the impact on the environment due to the seasonal flooding cycle being the reverse of its natural cycle to accommodate for irrigation.

Forestry activities on Gunbower Island have all but ceased, however some selective logging still takes

place and firewood collection is strictly regulated. In the 1800s and early 1900s the area supplied timber to other parts of Australia, mainly Melbourne and Adelaide. At first shipped out by paddle steamer and later by rail, red gum was well sought after for railway sleepers and blocks used for flooring, and in those years timber was seen as an inexhaustible and renewable resource. Harvesting sleepers was a skilled job – men needed the strength of a weightlifter and the finesse of an artist! During the great depression in the 1930s and following the war of 1940-45, forestry activities were taken to a new level. Near Spences Bridge a major camp was established, still known as 'Tree Tops Camp.' During the war, people with a German or Italian background were "interned" here, put to work in timber harvesting, ringbarking the largest 'bull' trees in the process to allow for the regeneration of new saplings. Red gum wood also proved to be valuable for charcoal production, and old boilers from the goldfields were brought in for this purpose; the last licence was issued in 1976.



Dunes at Reedy Lagoon (Photo: Tamara Leitch)

We had lunch at Reedy Lagoon, where the foundations of tobacco kilns were still visible. A plantation of mainly pine trees was planted with the purpose of testing species suitable for forestry in the area. There were some interesting species, but not very successful for timber production from what I could tell. A *Pinus* species seen re-sprouting from epicormic buds was very uncommon indeed – from my understanding only one or two species have this ability.

The dunes at this location consisted of sand, blown up out of

the dry riverbeds formed in the last glacial period 16,000 years ago, and created an interesting natural feature with very good birdlife but very depleted natural vegetation except for the wet creek beds. Disused cattle yards are still very recognisable at Reedy Lagoon and at the start of the Forest Walk near Koondrook.

After the camp wound up on Tuesday, I camped for two more nights along Gunbower Creek, where there are plenty of very nice and free campsites. I moved my camper a little so as not to disturb Striated Pardalotes flying in and out of a tree hollow. While overlooking Reedy Lagoon I witnessed a

Lace Monitor very nearly catching a bird – it was the enormous kerfuffle that alerted me! On the Forest Walk near Koondrook I had my morning cuppa in the shade of the 'Eagle Tree', standing as a proud, grand old lady amongst much younger offspring, demanding respect. A low earthen dam around the ancient River Red Gum, created by volunteers in 2009 to lovingly water the tree during an extended drought, was vaguely recognisable. She is estimated at 800 – 1000 years old, as the sign explained. It is certainly worthwhile going back



Reedy Lagoon (Photo: Tamara Leitch)

to Gunbower Island to discover more. Some areas were closed due to seasonal flooding, but visitor facilities in the area were world class – where else would you find rangers visiting your campsite and telling you to be careful as tomorrow is going to be hot?

Thank you, David and Phil, for introducing us to this part of the state, and to the Cohuna Visitor Centre for providing a lot of helpful information.

Jack Weerts

Birdlife Australia has recently published a pamphlet titled **'Bird-friendly rodent control: making better choices for our wildlife'**. It provides tips on non-lethal deterrence and control of rats and mice, and recommends that, if anticoagulant rodenticides are deemed necessary, to use products containing first generation compounds (containing warfarin, coumatetralyl), rather than second generation compounds (brodifacoum, bromadiolone, difenacoum, difethialone, flocoumafen), as they degrade much faster and are less likely to cause secondary poisoning of scavenging birds, mammals and reptiles. An electronic copy of the pamphlet is available here:

https://birdlife.org.au/documents/BirdLife_Bird_friendly_rodent_control_final.pdf

Guest speaker for February

Maxwell Campbell

Max is a biologist, educator and current president of the Field Naturalists Club of Victoria. He has a special interest in macro photography and video microscopy, and will use these techniques to highlight the importance of invertebrates to biodiversity, which is grossly underestimated in comparison to that of vertebrates which comprise only a minute fraction of all animal life.



Guest speaker for March Linden Gillbank

Linden is an historian of Australian botany and a University of Melbourne Honorary Fellow. Her talk will feature the work of Ferdinand Mueller, government botanist for the Colony of Victoria in the 1850s, and his expeditions to the Australian Alps to collect, name and describe new species.



Latrobe Valley Naturalist is the official publication of the Latrobe Valley Field Naturalist Club Inc. The Club subscription includes the "Naturalist".

Brief contributions and short articles on any aspect of natural history are invited from members of all clubs. Articles, including those covering Club speakers and excursions, would typically be around one A4 side in length, should not exceed 1,000 words, and may be edited for reasons of space and clarity. Photos should be sent as an attachment and be a maximum of 1 megabyte in size.

Responsibility for the accuracy of information and opinions expressed in this magazine rests with the author of the article.

Contributions should be addressed to:

Ms Tamara Leitch The Editor LVFNC Inc. PO Box 839 TRARALGON VIC 3844 Phone: 0438 372 186

Email: tleitch@wideband.net.au

Deadline for articles to be considered for inclusion in the next issue (March/April): 2 March 2020

Latrobe Valley Field Naturalist Club Incorporation No. A0005323T ISSN 1030-5084 ABN 86 752 280 972

The Naturalist is generously printed by the office of Russell Northe MLA, Member for Morwell

INDEX TO LATROBE VALLEY NATURALIST 2019 - Nos. 600-605

BIRDS

Report on the 2018 Birdlife Australia Bird Challenge Count	J Duncan	600 Jan-Feb
Birding outing at Port Albert 12.03.19	J Duncan	603 Jul-Aug
Birds of Papua New Guinea – David Stickney	K Harris	605 Nov-Dec

BOTANY

Flora between Perth and Geraldton – Phil Rayment	R Mildenhall	600 Jan-Feb
Orchid Excursion to Traralgon South 22.09.18	R Fitch	601 Mar-Apr
Light at the end of the tunnel: Ecology & management of Sweet Pittosporum	T Leitch	601 Mar-Apr
Plants colonise the land – Professor Dianne Edwards	R Mildenhall	603 Jul-Aug
Mosses and liverworts at Tarra Bulga 05.05.18	K Harris	604 Sep-Oct
Putting Victoria's fungal diversity on the map – Sapphire McMullan-Fisher	J Duncan	604 Sep-Oct
Tarra-Bulga fungi excursion 25.05.19	W Savage, J Champert	605 Nov-Dec

OTHER WILDLIFE & CONSERVATION

Fascination of Orchid Pollination – Mitch Smith	D Nagle	600 Jan-Feb
Reptiles of West Gippsland – Craig Boase	M Campbell	604 Sep-Oct
Fauna surveys in the Morwell-Yallourn district 2005-2019 – Peter Homan	D Nagle	605 Nov-Dec
Arboreal mammal surveys for conservation management – Louise Durkin	G Bremner	605 Nov-Dec
Spotlighting for Greater Gliders at Mirboo North	W Davies	605 Nov-Dec

GENERAL EXCURSIONS

Tyers Park 28.07.18	J Parker, B Stevens	600 Jan-Feb
Peach Flat Community Wetland 25.08.18	J Duncan	600 Jan-Feb
Club spring camp at Warrandyte – Boomers Reserve & Jumping Creek Reserve	M Bouman	601 Mar-Apr
Club spring camp at Warrandyte – Whipstick Gully & Pound Bend	W Savage	601 Mar-Apr
Club spring camp at Warrandyte – Maranoa Gardens	A Williams	601 Mar-Apr
Club spring camp at Warrandyte – Hochkins Ridge Flora Reserve	M Rowe	601 Mar-Apr
Club spring camp at Warrandyte – Schwerkolt Cottage Reserve	M Watkins	601 Mar-Apr
Baths Road Reserve 24.11.18	P Rayment	602 May-Jun
Club summer camp at Mt Buller – Summit Walk	B Stevens	602 May-Jun
Club summer camp at Mt Buller – Mt Stirling	L Norden	603 Jul-Aug
Club summer camp at Mt Buller – Howqua Hills Heritage Trail	M Watkins	603 Jul-Aug
Club summer camp at Mt Buller – Reptiles	M Campbell	604 Sep-Oct
Ashfords Road & Stony Creek, Yinnar 27.04.19	M Rowe	604 Sep-Oct
MISCELLANEOUS		
President's Report 2018-19	D Stickney	602 May-Jun
ANN Get-together in the Grampians & Anglesea	P Rayment	601 Mar-Apr
Ken Harris: 50 years of nature study	D Stickney	602 May-Jun
Vale Ken Smith	D Stickney	604 Sep-Oct
SEANA Autumn gathering at Port Fairy	P Rayment	604 Sep-Oct