



Understanding
Our Natural World

Field Nats News No. 293



Newsletter of the Field Naturalists Club of Victoria Inc.

1 Gardenia Street, Blackburn Vic 3130

Telephone 03 9877 9860

P.O. Box 13, Blackburn 3130 www.fncv.org.au

Editor: Joan Broadberry 03 9846 1218

Founding editor: Dr Noel Schleiger

Reg. No. A0033611X

Patron: The Honourable Linda Dessau, AC
Governor of Victoria

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February 2019

From the President

I hope that you all enjoyed a very pleasant Christmas and New Year and are looking forward to participating in our 2019 program. As always there will be many presentations and activities for you to enjoy so I hope to see you at some of them. The Terrestrial Invertebrate Group (TIG) photo excursions over summer are well worth the effort if you can get to them. Good company, picnic lunches and the opportunity to photograph plants and animals makes for a very enjoyable experience. For the inexperience, there are many opportunities to learn about both macro photographic technique and the plants and animals themselves. The Marine Research Group, Fauna Survey Group, Juniors' Group, Geology Group and Fungi Group also have excursions and camps throughout the year.

One aspect of arthropod behaviour that has always fascinated me and frustrated novice naturalists on TIG excursions is the ability of some spiders and insects to disappear into the background. Knowing where to look for and how to find camouflaged organisms is one of the skills that is improved by attending excursions. To photograph small animals you need to be able to see them in the first place. Finding the subjects for photography is simply a matter of sitting and closely observing the area until something moves or doesn't appear quite right upon closer examination. It is a matter of extreme patience assisted by experience. A great deal can be found in a very small area.

Some of the organisms depicted in the following photographs have well-developed camouflage abilities and most were not immediately visible. Camouflage helps ambush predators catch unsuspecting prey and generally helps to avoid becoming prey.

If anyone notices owl pellets during their nature excursions and is able to collect one or two please let me know. Always treat them as potential biohazards and use forceps and sealed plastic containers/bags to collect them and thoroughly wash your hands afterwards. Permits may apply so be mindful of relevant regulations. Record the date, time and location. Include the owl species if known. They will be used for a proposed workshop in 2019. (All photos M. Campbell)

Maxwell Campbell



Photo 1: A grasshopper blending nicely into its environment.

Photo 2: A desert wolf spider adapted to living on sand.

Photo 3: A wolf spider moving over litter.

Photo 4: Nymph of *Ledromorpha* sp, a plant hopper adapted to living on bark

The deadline for FNN 294 will be
10 am on Tuesday February 5th, 2019. FNN will go to the printers
on the 12th with collation on
Tuesday 19th.



Contents

From the President	1
Calendar of Events	2
Members' news	3
Geology Group Report :	4-6,
USA Nat. Parks & Scablands	14.
Extracts from SIG reports to Council: Christmas Party	7-8
Day Group Report: Looking at nature in Slovenia	9-10
Terrestrial Invertebrates	11
Group Reports: Langwarrin; South-West Victoria	12-13
Notices	14



CALENDAR OF EVENTS

All meetings are held at the FNCV Hall, 1 Gardenia St. Blackburn at 8 pm., unless otherwise indicated. On days of extreme weather conditions, excursions may be cancelled. Please check with leader.

February 2019

Sunday 3rd - Terrestrial Invertebrates Group Excursion: *The Dandenongs – Sherbrooke Forest.*

Meet in O'Donohue Picnic Ground, Sherbrooke Lodge Rd, Sherbrooke ready to leave at 10 am. We will walk towards Sherbrooke Falls looking for invertebrates as we go; BYO lunch in the picnic ground (Mel map 75 G3) (Google maps <https://goo.gl/maps/8zab8xigZGC2>) Contact: Reiner Richter fncv@rnir.id.au

Monday 4th - Fungi Group No Meeting

Tuesday 5th - Fauna Survey Group Meeting: *The impacts of urbanisation on Melbourne's frogs.*

Speaker: Dr. Kirsten Parris, Associate Professor in the School of Ecosystem & Forest Sciences, University of Melbourne
Contact: Ray Gibson 0417 861 651; rgibson@melbpc.org.au

Monday 11th - Marine Research Group Meeting: *Diving in Papua New Guinea* Speaker: Robert Gardiner

Contact: Leon Altoff 9530 4180 AH; 0428 669 773; mrg@bluering.org.au

Sunday 17th - Terrestrial Invertebrates Group Excursion: *Braeside Park (South).* Meet at 10 am in Redgum Picnic Area in the south of the reserve, off Governor Rd. (Google maps <https://goo.gl/maps/CZ5VRNkBB2vw>)

Contact: Reiner Richter fncv@rnir.id.au

Monday 18th to Saturday 23rd - Fauna Survey Group Survey: *Hattah-Kulkyne National Park FNCV Members only.*

Prior bookings essential. Contact: John Harris 0409 090 955; wildlifeexperiences@gmail.com

Tuesday 19th—Collate FNN 294 Starting about 10 am. Contact Joan Broadberry 9846 1218

Wednesday 20th - Microscopy Group Meeting: Introduction to the analysis of owl pellets. Speaker Max Campbell.

Contact: Philippa Burgess 0409 866 389

Thursday 21st – Botany Group Meeting: *Mates – Mycorrhiza & Endophytes - fungi that plants need.* Speaker:

Dr Sapphire McMullan-Fisher, Fungi4Land & Fun Fungi Ecology. Contact: Ken Griffiths botany@fncv.org.au

Friday 22nd – Juniors' Group Meeting 7.30 pm: *Marine Life.* Speaker: Andrew Christie.

Contact: Patricia Amaya juniors@fncv.org.au

Sunday 24th – Juniors' Group Excursion: *Mornington Peninsula.* Leader: Dr Greg Holland.

Bookings in advance essential. Contact: Patricia Amaya juniors@fncv.org.au

Monday 25th—FNCV Council Meeting. 7.30 sharp. Agenda items & apologies to Wendy 9877 9860; admin@fncv.org.au

Sun 24th to Wed 27th – Marine Research Group Field Work: *Portland area.* Exact locations will be decided while on site.

For further details contact Leon Altoff 9530 4180 AH; 0428 669 773; mrg@bluering.org.au

Tuesday 26th – Day Group Meeting *From our coasts to the Arctic: tracking the journey of our migratory shorebirds.*

Speaker: Ken Gosbell, Birdlife Australia wader study group. Meet at 10.30 am for coffee and a chat. Speaker 11am.

Contact: Joan Broadberry 9846 1218.

Wednesday 27th – Geology Group Meeting: *Fluvial geomorphology with the Mullum Mullum Creek as an example.*

Speaker: Associate Professor Ian Rutherford, University of Melbourne.

Contact: Ruth Hoskin 9878 591; 0425 729 424; rrhoskin@gmail.com



The policy of the FNCV is that non-members pay \$5 per excursion and \$3 per meeting, to contribute towards Club overheads. Junior non-member families, \$4 for excursions and \$2 per meeting.

Members' news, photos & observations

We always have space for members' photos and natural history observations. Please share with us what you have noted in your daily life, travels or garden. Email: fnnews@fncv.org.au by the first Monday in the month.

Welcome Welcome

Warmest greetings to the following new members who were welcomed at our last Council meeting.

John Muchan, Adam Hosken, Thomas Hosken, Heather Hosken and Scarlett Hosken

Vale Brother John Kissane

Christian brother, John Kissane joined the Field Naturalists Club in April 1978. Sadly he passed away in late 2018. On behalf of its members, the Club would like to express our deepest condolences.

John asked that his extensive scientific and naturalist library go to the FNCV.

Victorian Science Talent Search (VSTS)

Each year the FNCV, through the generosity of a donor, contributes to a number of bursaries awarded to primary and secondary school children for their innovative science projects. These include creative writing, posters, wall charts, inventions, models and more. The awards commemorate the memory of Dr Noel Schleiger. For those who may not know, Noel was a geologist, founding editor of this newsletter and contributed to the FNCV in innumerable ways.

Below are a few excerpts from two of the many thankyou letters the Club has received from the students.

"I would like to thank you and the Field Naturalists Club of Victoria for sponsoring me in the Science Talent Search. This is my second time participating... (for) my entry this year I created a video about the Aussie Heart Pacemaker... I got the inspiration to make this video and inquire into this topic because a family friend works as a cardiologist installing pacemakers for people. When I found out the first pacemaker was made by an Australian I knew this was what I wanted to research into." Sincerely Cameron

"The Victorian Science Talent Search has been my favourite event for the past year. Science and geography are my favourite subjects."

Thanks to FNCV treasurer Barbara Burns

Thanks to John Eichler for these images and observations:

"First is a male Satin Bowerbird taken at the Neds Gully carpark in the Cathedral Range State Park on the last Fungi Group excursion last year. After most people had left Val Stajsic and I watched a group of females / juvenile males and one mature male feeding in and around the carpark.

The second is a small spider I found recently in the Long Hollow Heathland Reserve, Beaumaris. I thought it was a juvenile St Andrews Cross Spider but when I posted it on the BowerBird website a regular contributor corrected my identification. It turns out that it is *Gea theridioides*, a wide-spread but uncommon spider. In Victoria it has only been recorded from two other locations (based on records in the Atlas of Living Australia)



The third is a small sedge-like plant, *Cetrolepis polygyna*, found in a very limited area of the foreshore at Black Rock. According to the 2014 edition of the Flora of Melbourne this plant is very rare in the Melbourne region."



Geology Group

November 2018

A visit to some national parks and the Scablands in north-west USA.

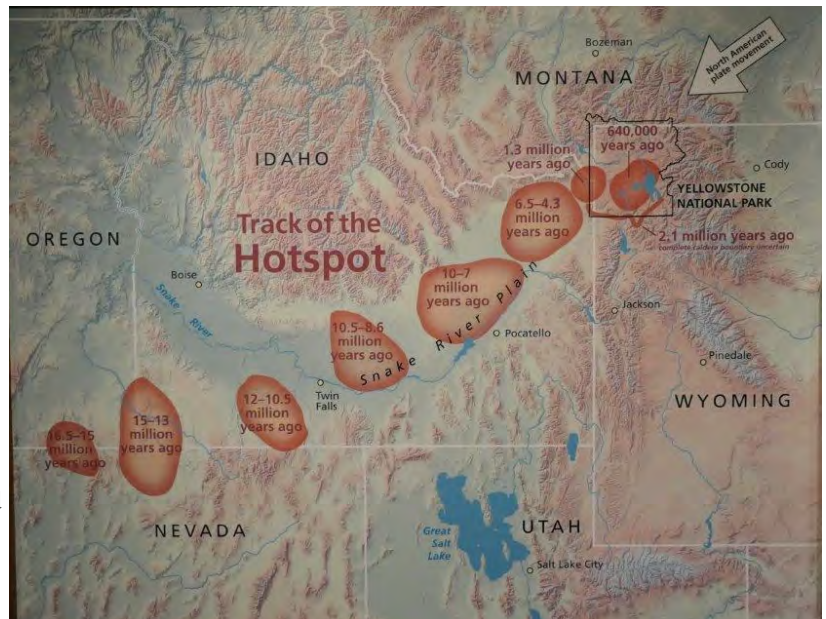
In May-June 2018, eight people from the Nunawading U3A Geology class, some of whom are FNCV members, spent four weeks exploring some of the geological sites of north-west USA. They were led by one of their tutors, Dr. Peter Jackson. Sally Bewsher, our speaker, selected a number of the most interesting areas they visited for the FNCV Geology Group

The road trip commenced in Salt Lake City, Utah. The spectacular Great Salt Lake was observed from the air upon evening arrival and is a remnant of prehistoric Lake Bonneville. Its size varies greatly, depending on seasonal precipitation and evaporation. The lake attracts many migratory species, particularly birds, including Eared Grebes, American Avocets, American White Pelicans, California Gulls, Black-necked Stilts to name a few species seen. The wetlands along the lake's shores provide important feeding, breeding and refuge opportunities. Antelope Island is the largest of numerous islands and is reached by a causeway from where large numbers of Eared Grebes were seen. Precambrian deposits there are some of the oldest rocks in USA and former shorelines of Lake Bonneville were evident on the higher slopes of the island.

The group then travelled north to Wyoming and Idaho. They visited the Gros Ventre landslide on the way to Yellowstone National Park. This huge landslide took place in 1925, creating a dam across the Gros Ventre River, backing up the water and forming a lake. In 1927 part of the dam failed and a massive flood roared 40k downstream.

At the end of May, Yellowstone National Park was still partly under snow. The park is the site of a huge super-volcano which erupted some 640,000 ya and today still lies over a hot spot. As the tectonic plate has moved over the hot spot, eruptions have occurred roughly every 700,000 years. (*Diagram right*) The region is 2,500m above sea level. Present thermal activity includes Mammoth Hot Springs, featuring spectacular travertine terraces formed from calcium carbonate, the Paint Pots area which contains mud pools of various colours, fumaroles and Old Faithful and many other geysers. Other geological features visited were the Yellowstone River Canyon, rock and ash formations, a number of waterfalls and several lakes. Mammals seen in the national park included Bison with young calves, Yellow-bellied Marmots, Brown Bears at a distance, Golden-mantled Ground Squirrels (*photo right*) and Mule Deer.

One of the major goals of the trip was to explore the Scablands in Washington State, and the Columbia River Flood Basalts. (*See map page 5*). At the end of the last ice age, 15,000 -13,000 ya, the huge glacial Lake Missoula was dammed by a lobe of the ice sheet which extended south from what is now Canada. When the 'ice dam' eventually broke, massive amounts of water scoured the volcanic landscape and the overlying loess. The floods banked up behind the Heavenly Hills at Wallula Gap, forming a temporary lake called Lake Lewis. Within days it emptied out into the Pacific Ocean via the Columbia River. The landscape was utterly changed and huge amounts of fine-grained sediments (called rhythmites) were deposited in the slack-water areas before Lake Lewis drained, taking much more debris and sediment out into the ocean. The Missoula Floods took place perhaps 12 to 20 times, with each flood occurring over a very short period, creating this amazing eroded landscape. Each event happened in just a matter of days.



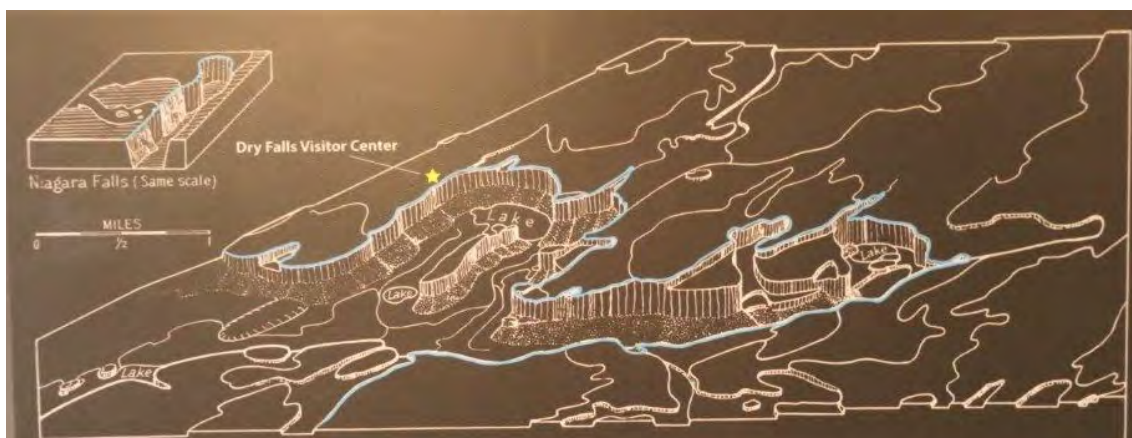
Golden mantled Ground Squirrel Photo: Sally Bewsher



(Continued from page 4)

A distinct landform known as a coulee was formed as the water tore across the landscape, cutting through the many basalt layers, creating rectangular valleys at the weakest or lowest points. (Note that glacial valleys are U shaped and river valleys are V shaped, as opposed to these rectangular valleys which do not contain rivers). Devils Canyon

Coulee is a good example of a rectangular valley formed by the cataclysmic floods. Another is the Grand Coulee, the largest one of all. It contains Dry Falls, once the world's greatest waterfall, but now without water flowing over them. The rim of the falls is five kilometres wide and about 130m high. This is approximately 10 times the size of Niagara Falls. At peak flow the water is believed to have been around 250 m deep coming over the top of the falls. The waterfall was originally located 20 miles downstream, but as a result of successive floods was eroded backwards, forming the Lower Grand Coulee Canyon. The group also visited the spectacular Palouse Falls. These formed when the floods permanently diverted the Palouse River into the Snake River. They now tumble 60m into the plunge pool below. (Photo right)



Hand-drawn diagram by J. Harlen Bretz comparing Niagara Falls to Dry Falls using the same scale. NB. The blue line on each diagram shows the extent of each of the falls.



continued on page 6

(Continued from page 5)

Another distinct landform found in the Scablands are giant ripples, measuring between 1 and 15 metres high. They resemble the ripple marks found in ordinary rivers or on a beach, but on a much larger scale and need to be viewed from a distance to appreciate their magnitude. Geologist J. Harlen Bretz first recognised that these landforms were created by immense floods in the 1920s, but his work was not accepted until many, many years later.

In May 1980, a huge explosive eruption blew the summit and side of Mt St Helens in Washington State sideways. A massive landslide and lahar buried the North Fork Toutle Valley, reducing the elevation of the mountain's summit from 2,950 m to 2,550m and replaced it with a 3k wide horseshoe-shaped crater. The blast is estimated to have travelled at 1,000km/h, devastating forest in the 20km radius blast zone. Much of the forest has now regenerated, but there are many stumps and dead trees which still provide evidence of the devastation. The visitor centre provides a wealth of information and displays.



Comparison of the ashfall from Mt. St. Helens with that of Yellowstone's three calderas

The trip then visited the exquisitely beautiful Crater Lake in south-central Oregon which is famous for its deep blue colour and water clarity. (Photo right). It is the deepest lake in the USA at 594m. About 7,700 years ago the composite volcano Mount Mazama exploded, forming a caldera eight kilometres wide, which now contains the lake. The eruption ejected approximately 80 times the amount of material ejected by the Mt St Helen's volcano. Again, snow clearing was still underway in the east and travel right around the rim road was not possible. However, much of the western side, north west and south west areas were accessible,

giving spectacular views across and into the crater from the largely unfenced lookout points!

The group is indebted to the extensive planning, research and preparation which Dr Peter Jackson put in, to ensure the success of this overseas trip.

(NB. For anyone interested in further information on the Scablands, some of the many YouTube lectures by Nick Zentner from Central Washington University are highly recommended).

Additional photos see p 14

J. Broadberry & S. Bewsher



Crater Lake Photo. Sally Bewsher

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: Meeting Thursday 15th November – Dr Mary Gibson told the story of Earnest Giles who crossed the Aboriginal lands of the desert in the 1870s. Her own expedition naturally involved observations of the flora, feral animals and geology. We learned of lateritic gibber and of *Triodia* (Spinifex). Among the well adapted *Proteaceae* are *Banksia prionotes* and *Grevillea wickhamii*. A dimorphic root system employs a deep tap root for water, and lateral roots with root hairs for minerals. A cluster root form is also found. An audience of 17 very much enjoyed the presentation.



Ken Griffiths

Day Group: October 23rd: *Living on the edge, In situ orchid management in north-east Melbourne.* Our speaker Gary French focused on four species of endangered native orchids. *Caladenia rosella*, *Pterostylis smaragdina*, *Caladenia oenochila* and *Caladenia amoena*. A great insight into the enormous effort needed for conservation. A full report appears in FNN 292 p 9-10.



November 26th: *Looking at nature in Central Europe.* A tour through the rural and wild areas of Slovenia. Andrew McCutcheon's stunning images and commentary gave a fascinating introduction to the rich natural history of this little known European country. A wonderful presentation enjoyed by all. A full report appears on pages 9–10.

Joan Broadberry

Geology Group: The Geology SIG hosted Bill Reid for our meeting on **Wednesday October 24th**. Bill is the Exploration Manager for Castlemaine Goldfields Pty Ltd who operate the Ballarat gold mine project. Over 3 million ounces of gold were mined from the 2000 reef mines of Ballarat before the last mine closed in 1918. Few of the original mines stopped working because of lack of gold. The usual causes were the high cost of controlling water levels in mines especially when the surrounding mines closed, as well as investment competition, the price of gold and the development of other gold fields such as Kalgoorlie. The lack of manpower during World War 1 had a major influence.



Mining records from that era are an important resource used by today's geologists in mapping Ballarat's gold reserves. Bill was an ideal person to describe how these have been used to plan future expansion of the mine. And the Ballarat goldfields are far from exhausted. The current Ballarat mine now has 42 kms of workings under Ballarat East northward from their surface workings near Sovereign Hill and is at a depth of 750 metres, well below the majority of the historic mines. The mine is still very profitable.

Bill's talk covered a wide range of topics including: the Ordovician (458 million years ago); background to the gold bearing Ballarat reef quartz which is heavily folded and faulted; a description of mining terms some of which are peculiar to Ballarat such as 'leather jackets', and indicators, complete with descriptive photos of the features. He also compared the differences in mining techniques between the 19th Century mines and the present day e.g. one pump now is used to dewater all of the mine whereas each historic mine would struggle to manage the water with their individual pumps. Bill commented that it is very unusual to have a mine directly under a city which is not dominated by its mining as is Broken Hill or Mt Isa or other Australian mining towns. He has found that Ballarat people are very positive and encouraging about the mine in Ballarat.

It was particularly interesting to see how the historic mining records, supplemented with recent drilling results, are incorporated into 3D modelling of the old adits as well as showing likely gold reserves. Bill was an excellent and entertaining speaker who gave a most enjoyable talk to an audience of 34 members and visitors.

Ruth Hoskin

Terrestrial Invertebrates Group: A successful meeting on **21st November** was well attended. The presenter, Gillis Horner, spoke on the "Distribution and peak flowering times of native plant families". There were also two good field trips to Langwarrin and Bunyip. A report on Langwarrinis to be found on page 11.



Reiner Richter

Juniors' Group: October 26th evening meeting: The Juniors were very lucky to have Lisa Maloney from Whitehorse City Council talking about Aboriginal knowledge of the weather. The attendance consisted of four member families; five children and five adults. We were grateful for Max Campbell's presence.



About Lisa: she obtained a degree in environmental science and more recently has been working with Whitehorse City Council for a number of years. She became interested in the effects of weather and climate change in the environment, and this led to her to discover how different Aboriginal communities understand the weather and its effects in their daily life. For Aboriginal communities this knowledge was the difference between life and death.

(Continued on page 8)

(Continued from page 7)

One of the facts she mentioned was that the Kulin people as well as other aboriginal communities have a profound understanding of the seasons and the environment. For the Kulin nation each season is marked by the movement of the stars in the night sky and changes in the weather which match the life cycles of plants and animals. For more information:

<https://museums victoria.com.au/forest/climate/tadpole.html>

<http://www.bom.gov.au/vic/> (bottom of the page look for Aboriginal weather knowledge).

November 3rd - 6th Cup weekend camp:

What an amazing camp for those taking part. We went to Mali Dunes. In total 13 people attended the camp including one non-member. We were lucky to have Barbara Burns and Max Campbell with us.

Our activities started before we arrived at the camp site. On our way we stopped to see the amazing Pink Lake at Dimboola and visited Clive Crouch and his property in Nhill. We saw the endangered Golden Sun Moth on his property and a few animals that are kept in an enclosure. This visit was one of the highlights of our camp.

Another highlight was sightings of juvenile and mature Mallee Fowl and the children and some adults were very excited to spot Wolf Spiders at night. We also witnessed a Mouse (Trap Door) Spider in action. We all enjoyed the spectacular wild flowers on the Little Desert National Park walk. We finally saw a brown snake crossing the road. The children were fascinated with the talks given by Max Campbell and Aviva Campbell.

November 10th Excursion:

We visited Sherbrooke Forest with Diana Gunta who is a fantastic leader. Ten people attended. We learned a lot about Mountain Ash trees and why it is important to protect them. We also discovered many plants that we had often seen before but did not know much about. Diana enjoys taking children and adults into local forests.

Patricia Amaya



Creating a web of life with wool to show how the ecosystem of the forest is interlinked, from the trees to fungi to moss to insects

FNCV Christmas Party

On Saturday 8th December 2018 about 30 FNCV members and friends joined together to celebrate another year of learning, discovery and friendship. Our wonderful administrative assistant Wendy Gare with her husband Colin and son Martin arrived early to set up the tables and decorate the hall. As has become a tradition, images from the various SIGS and club functions were projected during the evening. Thanks to Gary Presland for co-ordinating this. Two tables were groaning with donated prizes. Max Campbell ran the raffle draw. Almost everyone was a winner with \$201 being raised for club funds. Beautiful salads and deserts were generously supplied by those attending, Max and Ray Gibson manned the BBQ and everyone pitched in to help with clearing up.

Thanks to Barbara Burns for the photos.





Day Group

This newsletter is printed on recycled paper.

Looking at Nature in Central Europe, a tour through the rural and wild areas of Austria, Bavaria, Slovenia and neighbouring countries exploring beautiful natural and cultural scenery and looking for flora and fauna.

Part II – Slovenia

Speaker Andrew McCutcheon.

Earlier this year in June, Andrew McCutcheon spoke to the Day Group about his travels in Europe. Unfortunately I could not attend this session, so I was delighted when he agreed to continue his presentation at our November meeting. He chose to focus on the 3 ½ weeks he and his partner Faye spent touring by car in Slovenia in the early summer (June) of 2017.

Slovenia is one of Europe's smallest countries with a population of approximately 2m people. It has a diverse landscape with 60% of the country still covered by forest. 12.6% of Slovenia's territory is covered by protected natural areas, and 36% of the territory is protected under Natura 2000, a network of nature protection areas in the territory of the European Union. Slovenia considers itself a 'green' country which manages its resources carefully to ensure that nature's treasures are preserved for future generations, that local population development is planned responsibly, and all economic development is sustainable without compromising the country's rich biodiversity.

Andrew's talk encompassed several locations. Triglav National park, Slovenia's only national park is set amongst the spectacular peaks of the Julian Alps. It is centered on Mount Triglav 2864m, the highest peak in Slovenia. The national park consists of spectacular mountains, vertical rock faces, deeply-carved valleys, hard-to-access gorges, stunning glacial lakes, dense forest, rolling



carpets of alpine flowers and mountain patches of green grass – all combined with a lavish profusion of biodiversity.

Andrew and Faye stayed in Stara Fuzina, a small village near Lake Bohinj a glacial lake ringed by steep forested slopes and high, glaciated mountains. Walks and bike rides on nearby forest trails, up a deeply cut karst valley and around the lake produced some wonderful natural history discoveries. These included the edible Roman Snail, wildflower meadows containing orchids and a huge diversity of flowers including the unique Great Masterwort and European Columbine. Many birds were seen including a Common Buzzard being chased by a pair of courageous White Wagtails, Barn Swallow and Dipper - the Dipper being the only passerine fully adapted to feeding under water. It catches its prey by swimming using its wings and walking underwater in fast running streams. *Photo page 11.*

Notranjska Regional Park is a karst landscape situated around Lake Cerknica, the largest seasonal lake in Europe with an area of 30 square kilometres. It is a haven of biological diversity and cyclically disappears and re-emergences, normally draining in summer when part of it can be traditionally farmed. Birds photographed here included the elusive Blackcap, Great Spotted Woodpecker, Eurasian Jay, Red-backed Shrike and migratory Mistle Thrush. Unfortunately because many Southern European birds are subject to hunting they have become very shy and hard to approach for taking good photographs. Andrew also found a number of non-venomous Grass Snakes, *Natrix sp.*, and an exquisite Hummingbird Moth displaying spectacular flight manoeuvres and hovering absolutely still over meadow flowers as it feeds.

(Continued on page 10)

(Continued from page 9)

Kolpa Landscape Park set along the River Kolpa in the far south-east of Slovenia borders the Republic of Croatia. Andrew and Faye stayed in a vineyard cottage high above a valley and beside an extensive forested area, supposedly inhabited by Brown Bears. The beautiful clear waters of the Kolpa River contain a high diversity of aquatic life such as numerous species of fish and invertebrates including two exquisite damselflies – Beautiful and Banded Demoiselles. An Old World Swallowtail, one of Europe's largest and most beautiful butterflies came down for a drink on the river stones beside where they were sitting. A number of Yellow-bellied Toads, with vibrant orange-yellow markings which is a warning to predators that they are highly toxic, were found in puddles on a track in the nearby forested Lahinja Landscape Park.



Dipper
Mostnica Stream, Slovenia
Photo: Andrew McCutcheon

Kozjansko Regional Park Located at the junction of the Alps and the Pannonian plain in eastern Slovenia on the border with Croatia, is a hilly landscape where nature and people have created a unique mosaic of flowering meadows, tall-tree orchards, vineyards and homesteads; all connected by winding country roads and paths leading to them. In this micro-region, a cultural landscape strewn with castles, monasteries and churches intertwined with steep wooded slopes, is valued for its high degree of biodiversity. Their time staying in a tiny vineyard cottage in at Sromlje coincided with a cherry festival at which cakes made from recipes using cherries were the tastiest they have ever experienced. Natural history finds included a Great Tit, and a spectacular ground beetle, *Carabus gigas*, Europe's largest which preys on snails, including the well known Roman Snails.



Humming-bird Hawk-moth *Macroglossum stellatarum*
Knezja Lipa, Slovenia
Photo by Andrew McCutcheon

The Goričko Landscape Park in the northernmost corner of Slovenia is wedged between the Austrian and Hungarian borders. As well as protecting natural habitat for endangered and rare European flora and fauna, the park offers a picturesque and cultural landscape of self-sufficient farming with a diverse range of field crops grown including pumpkins, buckwheat, spelt, rye, sunflower, wheat, corn and barley. In Gorička, man's primal relationship to the soil and harmonic co-existence with nature is for all to see – it is a paradise for hikers and cyclists. Its meadows contain a wealth of insects and butterflies, including several Fritillary

species and the Lessor Purple Emperor which feeds on dog droppings! More fabulous images were of the Stag Beetle, *Lucanus cervis*, Pond Bat, *Myotis sp.* and a White Stork nesting on a man-made structure in the centre of a village. A photograph was taken of a road-kill Pine Martin, a large Mustalid which hunts squirrels

In all the areas they visited Andrew included photos of Slovenia's picturesque villages and beautiful countryside.

Brief written reports on any speaker cannot do justice to their actual talk. This has never been truer than when viewing Andrew's stunning images and listening to his commentary on Slovenia. Each image was absolutely sharp and carefully selected to encompass a wide range of fascinating flora and fauna, most identified to species level. Andrew has the patience, sharp eyes and skill with the camera to discover and record amazing natural history subjects. Both his presentations have been greatly appreciated by the Day Group.



White Stork Nest
Grad, Slovenia

Joan Broadberry & Andrew McCutcheon



Terrestrial Invertebrates Group

Langwarrin

11 Nov 2018

Delightful weather greeted us this morning as we started along the slashed break covered with spreading clusters of the purple flags *Patersonia occidentalis* just opening up for the day. Despite all the flowers we saw very few insects on the purple flags, just a few honey bees. The bright beacon near the fence, of a couple of head-high Prickly Tea-trees *Leptosperma continentales* covered with flowers, rewarded us with five jewel beetle species: *Castiarina australasiae*, *Castiarina erythroptera*, *Castiarina octomaculata*, *Castiarina punctatosulcata* and *Castiarina wilsoni*.

Other insects, including different beetles, were also present. There were numerous spiders to distract us, both on plants and in holes in the ground, including three species of jumping spider on one *Lomandra longifolia*. Not to be outdone by the jewel beetles, was the metallic green jewel bug *Scutiphora pedicellata*. These were found on wedding bush *Ricinocarpos pinifolius*, along with a very slender, wasp-like longhorn beetle *Enchoptera apicalis* (see below) that I first saw at Langwarrin a few years earlier.



Castiarina punctatosulcata

Image: Reiner Richter

Heading the opposite direction along the break in the afternoon revealed many blue sun-orchids (*Thelymitra* sp) that had opened due to the pleasant conditions. Some of them can be difficult to identify. We also spent some time photographing the purple donkey orchids *Diuris punctata*. Those that lasted the distance also saw the charismatic flying duck orchid, *Caleana major*, and more invertebrates, including the green scarab beetles in the genus *Diphucephala*, (below). These can be abundant at times on various plants, including tea-trees and wattles.

Reiner Richter



Enchoptera apicalis

Image: Reiner Richter



Diphucephala sp.

Image: Reiner Richter

TIG South-West Victoria : 7th Dec – 11th Dec, 2018

Day 1 – Long Swamp

Our plans to explore part of Long Swamp (in Discovery Bay Coastal Park) were delayed but in a good way because one profusely-flowering, small prickly tea-tree was full of insects, including numerous and varied species of wasps and beetles that were however very active so difficult to photograph. Once we entered the ephemeral swamp, which still had shallow water for us to splash around in, we got to see some rare Ancient Greenling Damselflies (*Hemiphysalia mirabilis*) and a swamp greenhood orchid (*Pterostylis tenuissima*).

In the afternoon we stopped at sites from Moleside Creek to the small Inkpot lake (both in Lower Glenelg National Park). Despite vast patches of native *Senecio* and *Ixodia achillaeoides* (a type of everlasting daisy) we saw relatively few invertebrates. John Eichler had his “finding eyes” on full to locate a small, yet to be identified leaf-beetle species that were numerous on (unusually) hop-bush, several triangle spiders (*Arkys walckenaeri*) and a peacock jumping-spider (*Maratus plumosus*). For the rest of the trip I tried to beat John to the first triangle spider at any site but was only partially successful.



Arkys walckenaeri

Day 2 - Cobboboonee National Park

We made some opportunistic stops along the many roads crisscrossing this large, relatively flat park with lowland damp forest and swampy heathland. John Eichler found an attractive *Artioposthia howitti* flatworm, identification confirmed by Dr Leigh Winsor who also acknowledged a 200km westward range extension from the Otways. At the same site we also saw an attractive *Chloritobadistes victoriae* snail with an orange body.



Chloritobadistes victoriae

Driving between sites we spotted a Koala on the road, which then climbed a little up a nearby tree allowing us to take many photos of this fluffy-eared icon.

After lunch we eventually made it to the Heathland Nature Trail, which loops off the Great South West Walk. Swordgrass brown butterflies (*Tisiphone abeona* ssp. *albifascia*) periodically danced around us as it took us over two hours to walk merely the 1km, photographing numerous insects along the way. We also noticed a lot of *Septobasidium clelandii* from today – not photographed very often – seemed very abundant in the region. This fungus is found on tea-trees where it is parasitic on a gall-forming bug.

Day 3 - McFarlanes Swamp

The morning was spent searching McFarlanes Swamp for the rare lady beetle *Micraspis flavovittata*. The forecast was for 21°C and, although sunny, we eventually only found one larva before lunch. It wasn't until the early afternoon, when presumably it was warm enough, that we saw about 10 adults (and several more larvae). It is hoped that in the future someone



Searching in McFarlanes Swamp



Micraspis flavovittata

will be able to do the research necessary to get it listed as Critically Endangered, including searching the only other known colony about 500m away in Long Swamp to see if it still there and perhaps the east and west ends of Long Swamp.

Day 4 - Piccaninnie Ponds & Annya State Forest

Not being restricted to the state with our name, us Victorian Naturalists drifted across the border to spend the morning at this reserve that features a large upwelling of fresh water through the limestone. I was able to get a reasonable photo of a blue-spotted hawker (*Adversaeschna brevistyla*) that I will use for my upcoming dragonfly book (hopefully to be ready within a few months). Although a common species I still didn't have ideal photos of a mature male.

Although originally planning to spend the afternoon in Lower Glenelg National Park, with little in flower there we visited Annya State Forest (north of Heywood) instead. This has a swamp near the campground that includes the western most known range of the swamp bluet damselfly (*Austrocoenagrion lyelli*), of which we saw quite a few, including rarely photographed females. On blackwood wattles (*Acacia melanoxylon*) there were also several southern ladybirds (*Cleobora mellyi*), which are not as common in Victoria as Tasmania.

Day 5 - Mt Richmond National Park

On this heathy woodland hillside, having not seen many during the trip, we finally saw some more jewel beetles (although just common ones) and then an interesting large weevil with ridged elytra (a beetle's hardened wing covers) and orange antennae. After spending some time it turned out to be just the first of several *Psapharus ruficornis* found on eucalypts along the track.

Austrocoenagrion lyelli (female)



photos & text, Reiner Richter

Psapharus ruficornis



Ichneumonidae



Assistance requested

Robert Anstruther Goodsir (1823-1895), a Scottish Polar explorer, writer and traveller, arrived in Victoria c.1853 and returned to Scotland late in 1881. A Scottish researcher has asked me to help find details of his time here, and I'm wondering if any members have come across the name in their research. He was a lifelong naturalist, but not a member of FNCV. I have traced him, using land records, to the Balmoral/Hamilton district in 1864 and to Bairnsdale from 1876-1881. He is not listed in the Howitt papers, and does not appear in the *Proceedings* of the Royal Society. *Trove* references have already been noted. Any assistance will be greatly appreciated.

Helen Harris OAM, hdh1@ozemail.com.au 04239 833 324

INDEX to FNN 2018

From 2019 the yearly FNN index will be in digital form and will be emailed to all members with the February newsletter. Those who would prefer a printed copy should contact the office.

Once again the newsletter team would like to express their thanks to Pat Grey for her dedication and hard work in compiling the index.

Continued from Geology report p4-6



Killdeer photographed at Mammoth Springs.
Photo: Sally Bewsher



Bison with calves, resting in Yellowstone National Park.
Photo: Sally Bewsher

**Thanks to the editorial
and layout team who put
together FNN 293**

Joan Broadberry
Wendy Gare
Sally Bewsher

bookshop@fncv.org.au

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Hazel Brentnall
Andy Brentnall
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Anne Warren

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**Dr Mark R Cabouret
Level 4
No. 2 Collins Street
MELBOURNE VICTORIA 3000**