



WHIRRAKEE

December 2018

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**MONTHLY NEWSLETTER OF THE
BENDIGO FIELD NATURALISTS CLUB**



Bendigo Field Naturalists Club Inc.

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Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single \$40; Family \$50; Concession: Single \$35; Family \$40. *Whirrakee* subscription only is \$40. *For cost of printed Whirrakees, see membership renewal form*

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Golden Square Hall, Old High Street, Golden Square. The meeting starts with members sharing their recent natural history observations. The invited speaker starts at 8:00pm and meetings conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month at 5:30pm. Members of the Committee are the Office Bearers and other committee members listed above. *There are several vacancies for committee members.*

Excursions are conducted regularly and are advertised on the diary page of the *Whirrakee*. The assembly point for excursions is the Golden Square Hall, unless otherwise specified. Several interclub field naturalist campouts are held every year.

The Bendigo Field Naturalists Club is actively involved in local conservation issues. An **indigenous garden** has been established around the Golden Square Hall. Working bees are advertised on the *Whirrakee* diary page.

Bird Observing: Club members conduct regular bird surveys. Please contact Anne Bridley on 0474 467 661 or Glenise Moors 5439 6254 for details. Special bird observations should be reported to Anne Bridley on 0474 467 661. To propose bird excursions please contact Kerrie Norris 5447 8017.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club

Vol. 39, No. 11, December 2018

Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*), which is virtually endemic to the Bendigo region

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Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles. Contributions should be posted or e-mailed to the editor at least two days prior to the last Wednesday of the month. They will be included as soon as possible after they are received, although space restrictions occasionally require shortening of articles or holding them over till the following edition of *Whirrakee*. Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club.

Editor's Note:

This is the last edition of the year – it has a focus on excursion reports, and I hope you will find those interesting, regardless of whether you attended the excursions or not. The next edition will come out in early February, so perhaps you can use that to share some of your summer naturalists activities. I love the idea of serialising the pea species of Bendigo (see page 13), but there may be other topics that can be written about too. The committee is also asking for help and ideas for organising a plan for camp-outs (see Committee notes, page 14), so if you have hesitated until now about getting involved with the club, here is a great opportunity to re-develop this aspect of BFNC tradition. Lastly, don't forget about the earlier starting time for the December meeting (see page 15 for details). The December meeting should be great fun and we have an eminent speaker to top it off! Then, hopefully we can all slow down a bit over the summer and enjoy the festive season.

Front page photograph

Joy Clusker captured a great field-natting moment during the Dalyenong excursion in October. It makes you wonder what small thing the three kneeling members were looking at? For more images of the excursion, see colour photo section, and for the report, see page 4.

Short Notices

In the absence of a formal December excursion there will be lots of these night time wanderings, so why not book in?

NightLife – wandering in the bush after dark

Explore, discover, observe, record and exchange. This has been the theme of a series of regular walks running since last December with a focus on wandering in the bush at night. Participants have had an opportunity to see wild creatures in their natural habitat, and to experience the bush at a time that is utterly different to the usual daylight hours. Walks have been relatively short, with some off-track walking, and while we haven't travelled far, we have encountered many different species. If you would like to come along, register via emailing info@bendigofieldnaturalists.asn.au After you register, you will be added to the e-mail list to receive walk notifications including dates, meeting places and other information. The walks will be held in all conditions except torrential/extreme rain. Times will vary but will usually be from about dusk for a few hours or so.

Naturalist Workshops

Continuing in 2019 the Club will be running a series of Naturalist Workshops specifically designed to develop participants' proficiency across a broad range of field based naturalist skills and knowledge. They will be designed to cater for a wide range of abilities, and will use a participatory/interactive model, where participants learn from one another in a friendly and welcoming environment.

Workshop 34 is planned for February 27, 2019.

More information:

www.bendigofieldnaturalists.asn.au or
info@bendigofieldnaturalists.asn.au

Weekly Naturalist Walks – Nature Knowledge Exchange (Saturday: 9am-12pm)
Meet at the **Golden Square Hall from 8:50am to register, depart 9:10am**. Please carry your own water (and light snack), and wear clothing suitable for the prevailing conditions (hat, full length cover –shirt/pants, sturdy footwear, waterproof jacket). Walks will be short and of easy or occasionally moderate difficulty, suitable for anyone with a basic level of fitness. Members and visitors welcome.

To find out more, contact Richard (0423418815), via email richard.goonan@optusnet.com.au or check the club's website for details of upcoming walks www.bendigofieldnaturalists.asn.au

Please check the website for destinations and dates over the summer

The Great Victorian Fish Count is a project of our ReefWatch program. Every year in November and December, hundreds of divers and snorkellers hit the water with a special underwater slate with 35 important fish species and waterproof pencil to record fish on the Great Victorian Fish Count. This valuable data then contributes to over a decade of records collected by the community along Victoria's coastline.

The Great Victorian Fish Count has been running for 14 years, led by the Victorian National Parks Association in partnership with Museums Victoria, Parks Victoria, Coastcare Victoria, RedMap, local dive operators and local community groups. The Great Victorian Fish Count is supported by the Victorian Government.

What: Snorkel activity - introduction to the Great Victorian Fish Count

Where: Portsea Pier, 3755 Point Nepean Rd, Portsea

When: Saturday 15 December 10am or 12noon

Cost: \$10 per person

Registration: bookings@bayplay.com.au or (03) 5984 0888

Note: Beginner snorkellers welcome.

Report on the October excursion

by John Lindner

Date Sunday 14 October

Location Dalyenong Nature Conservation Reserve, located about half way between Bealiba and St. Arnaud. About 80km one way.

Leader/Assistant John Lindner and Tim McCaw

Participants 18 adults and one sweet little boy: Colin Thomas, John Robinson, John and Meg McCallum, Dick Robertson, Joy Clusker, Matt Comer, Peter & Dale Little, Anne Bridley, Simon Hay, Janet Justin, Peter O'Meara, Glenise Moors, Ben Goonan, Alison Hughes, Zekie aged 2.5 years

General program

From Bealiba, we regrouped to do the last 20 km in convoy. We made the following stops through the day:

Stop 1 Just outside of Archdale Ancient wooden bridge, full of character, over the Avoca River (see map on page 6)

Stop 2 Rise on the Dunolly-Archdale Road which passes through the reserve. Heathy Woodland EVC area. One hour walk.

Stop 3 2.0 km return walk to a prominent hill (293 m) located south of the road. Some Box-Ironbark Forest EVC and then Heathy Dry Forest EVC on the hill itself.

Stop 4 Lunch, about 12.30-1.30 near a dam about 2 km further along the road from Stop 1.

Stop 5 Meandering wide, dry watercourse about 2 km north-east Emu Track from the Dunolly-Archdale Road. Grassy Woodland Mosaic EVC. Afternoon tea.

Stop 6 At the junction of Centre Track and the Dunolly-Archdale Road. Patch of Box-Ironbark Forest EVC. From there we travelled home, arriving about 6.00 pm. The extra travelling time of 2 – 2.5 hours made this a long day.

Weather

It was pretty cool at first, but soon fined up to a warm, sunny day with a moderate breeze.

This was ideal for our first warm weather excursion after winter. It was evident that parts of the reserve had received some rain earlier in

the week, as the road was damp and so was the ground in places.

Introduction

Dalyenong was a place which captured my imagination long ago when I first came to Bendigo. Don Franklin (who now lives at Herberton on the Atherton Tableland), John Robinson and I were doing our field work as part of the plan to produce a book on the eucalypts of the Bendigo area. We may have called in at the reserve, but in the final analysis, it did not fall within the relevant 50 km radius of Bendigo for that booklet. In the big drought of 1982, Dalyenong became “famous” among bird watchers for having Black Honeyeaters visit – they had moved south from the desert areas to kinder areas.

In my early days as a trainee field naturalist, my primitive little field book number 5 records that I was there on 25 October 1981, but contextual details are non-existent. It lists a few plants for 2 different areas, and records the nesting of Yellow-tufted Honeyeaters. Field book number 8 records a club camp out we had there over the weekend 29 – 30 October 1983, in which I recorded 62 species of plants, 44 of which were flowering. I do not remember the exact location of the camp, but I do remember that we had lots of little kids along – the field nats of those days were quite fecund, and doing their best to increase the population.

In September 2017, I went with Glenise Moors to a 20 acre block of bush she had inherited from her family, and which she has been managing for many years. It is located between Dalyenong and Stuart Mill, where she spent her childhood. To get there, we drove right through the reserve along the Dunolly-Archdale Road. At the mere sight of the Heathy Woodland on the rises on that road, we could not help ourselves and had to stop to have a wander. The plants and birds were delightful. Even though we were only there for perhaps 30 minutes, we recorded 10 flowering plants out of 19 species and 13 birds, mostly by identifying calls. So I was immediately keen to put this place on the 2018 excursion calendar.

History of the conservation status of the area

The public land of the north-central area was investigated and appraised in the late 1970s by the Land Conservation Council. Its 1981 final recommendations for the North Central Area divided the Dalyenong woodland block into 2 zones: the west zone of 1450 ha was to be a Flora Reserve and the east zone of 1120 ha was to be for hardwood production.

The box-ironbark forests and woodlands component of the public lands of the north-central area were again reappraised in the late 1990s by the Environment Conservation Council. Its final recommendations of 2001 reunited the two zones as the Dalyenong Nature Conservation Reserve with a total area of 2570 ha (yes, they got the maths right). Our club made submissions on both occasions which lead to these better outcomes for conservation.

Description of environment and habitat at each location

Stop 1 Old bridge over the Avoca River

This beautiful old wooden structure, including the ramps at each end, is about 50 metres long. It arches slightly up to get it over the river, but despite its height, clumps of the last flood debris, mostly Common Reed (*Phragmites*), were still caught in the parts of the under-structure. The nearby modern concrete bridge is parallel to it, and is designed to be over-topped by floodwater. There were Fairy Martins flying around and their bottle-shaped nests made of mud were attached to the under-side of the bridge.

Stop 2 Heathy Woodland EVC on Dunolly-Archdale Road

The low shrubby understory layer, beneath eucalypts, is clearly visible from the road (see photo on page 7). We walked eastward along this strip, and then returned to the cars by the road. The eucalypt overstory comprises mainly stunted Grey Box (*Eucalyptus microcarpa*), but this changes to Red Box (*E. polyanthemus*) and Red Ironbark (*E. tricarpa*) at the eastern end. The abrupt transition between the Grey Box and the other two other species is very marked.

The rather beautiful character of this woodland is that in places, the tree layer is twisted and bent every imaginable way. Branches arch down to the ground and then curve upwards, writhe in all directions and form tangles. Trunks lean at very acute angles. The height of the trees is not great, but their canopy spread may be considerable. You could even call this form “giant bonsai”.

Due to the prolonged dry conditions, many herbaceous flowering stems, which would normally have been tall, were stunted. Some plants had not produced flowers at all (e.g. Blue Squill or Blue Star, *Chamaescilla corymbosa*). Even where there were flowers, they were sparse or notably smaller in size. Some notable flowering plants:

Hedge Wattle	<i>Acacia paradoxa</i>
Prickly Guinea-flower	<i>Hibbertia exutiaces</i>
Yam Daisy	<i>Microseris scapigera</i>
Early Nancy	<i>Wurmbea dioecia</i>
Leopard Orchid	<i>Diuris pardina</i>
Pygmy Sunray	<i>Triptilodiscus pygmaeus</i>
Twining Fringe-lily	<i>Thysanotus patersonii</i>
Creamy Candles	<i>Stackhousia monogyna</i>
Bulbine Lily	<i>Bulbine bulbosa</i>

Stop 3 Heathy Dry Forest EVC on the prominent hill

This hill is located about 1.0 km south of the Dunolly-Archdale Road, but you cannot see it from the road. Only when you start the final climb and are on the summit (293 m above sea level, ASL) do you realize its prominence. The vegetation on the ridge and the summit is notably less dense than the surrounding area (see photo on page 7).

To get there we had to walk through a section of the Box-Ironbark Forest EVC. On the outward walk, we came across a patch of Drooping She-oak (*Allocasuarina stricta*) on the ridge and on the return walk we passed through a patch of Bull-oak or Buloke (*Allocasuarina luehmannii*) in a gully.

Some notable flowering plants:

Peach Heath	<i>Lissanthe strigosa</i>
Flame Heath	<i>Astroloma conostephioides</i>

Continued on page 10...

Dalyenong Excursion – Sunday 14th October (see report on page 6)



Map of
Dalyenong
Nature
Conservation
Reserve.
Archdale Road
starts in the right
bottom corner
(see arrow),
which is where it
crosses the
Avoca River,
and goes in a
north-westerly
direction



Some of the flowering plants seen during the excursion (photos by Joy Clusker)
Top left: *Calytrix tetragona*, Common fringe myrtle, top middle: *Burchardia umbellata* Milkmaids
Top right: *Chamaescilla corymbosa* Blue squill. Bottom left: *Hyalosperma praecox*, bottom
middle: *Xerochrysum viscosum* Sticky everlasting, bottom right: *Velleia paradoxa*



Ecological vegetation classes (EVCs) at Dalyenong



Left: Grassy woodland mosaic
(Joy Clusker)

Left below: Heathy woodland
(John McCallum)

Below: Heathy dry forest
(Joy Clusker)

Bottom left: Box- Ironbark
forest (John McCallum)

Bottom right: Zekie Goonan is
enjoying the outdoors
(photo by Joy Clusker)



Dalyenong excursion continued...



Left: a parade of hats... Simon Hay, Meg McCallum, John Hay, John Linder and John Robinson are all watching Glenise uncovering something interesting. (Joy Clusker)

Below left: on hands and knees, field-natting often involves looking at very small things *in situ*. (Joy Clusker)

Below: Rob & Cynthia Watkins at the special presentation 'Nature Australia wide' on the 16th November (Joy Clusker)



Below: Malcolm Cousland photographed the Rainbow Bee-eater and the turtles at May Swamp on October 22.



Tuan Tuesday (i.e. nest box monitoring) – photos by Karen Thomas



Left: John Lindner and Bernard Canon checking boxes

Below: fresh scats in the corner of box on top of stringy bark....evidence of active phascogale nest



Left: Viv Dell, Kerrie Norris and Bernard Cannon doing nest box gymnastics

Below: Kerrie Norris and Bernard Canon during the skins annual stocktake and maintenance



Dalyenong excursion report continued...

Stop 4 Lunch on Dunolly-Archdale Road near dam

We had lunch on the side of the Dunolly-Archdale Road just near a dam in the forest. Virtually no birds were seen at the dam, perhaps due the fact that the edge of the water was completely open, with no overhanging foliage or other cover for small birds to approach.

Stop 5 Grassy Woodland Mosaic EVC along Emu Track

This beautiful and completely different landscape lies along each side of a shallow watercourse with a very low gradient (see photo on page 7). It has an alluring perspective, as you can see for a considerable distance through the big trees to far distant objects. Although it was quite dry, you could easily see where water had formed small pools, piled up sand or fine sediment in little banks, scoured out the channel and left piles of debris against obstacles.

You could just see the low-lying area on each side of the creek which would get quite boggy in a wet year. This subtly defined area, varying in width as determined by the slope of the land on either side, contained an abundance of small herbaceous plants, most of which had finished flowering. Only a little further up the slope it was too dry for these plants to grow.

The woodland here is quite open, being defined by large Yellow Box (*Eucalyptus melliodora*) trees, especially nearer the creek line itself, and Grey Box (*E. microcarpa*) trees further away from the drainage line. There was at least one large Yellow Gum (*E. leucoxylon*) too.

Some notable flowering plants:

Gold-dust Wattle	<i>Acacia acinacea</i>
Creamy Candles	<i>Stackhousia monogyna</i>
Sticky Everlasting	<i>Bracteantha viscosa</i>
Prickly Guinea-flower	<i>Hibbertia exutiaces</i>
Spur Velleia	<i>Velleia paradoxa</i>
Eutaxia	<i>Eutaxia microphylla</i>
Fireweed	<i>Senecio quadridentatus</i>

Stop 6 Box-Ironbark Forest EVC at the junction of Centre Track and the Dunolly-Archdale Road.

This beautiful area is located at the top of a ridge with very stony soil and is obviously very dry for long periods. There are many very old Red Ironbark (*Eucalyptus tricarpa*) trees, with large diameters, but there are younger trees here and there. They have some quite notable features which seem to belong to such trees – wide spaces between them, trunks that are twisted sideways or bent over gracefully towards the ground, wide canopies, broken branches, visible hollows and slabs of exfoliating bark (see photo on page 7). Stumps from previous harvesting can be seen too. The ground is covered in a thick layer of coral and soil crusting lichens, leaf litter, woody debris and coarse wood. Otherwise the shrub understorey is sparse.

What is an ecological vegetation class (EVC)?

Well may you ask. I do not claim to be anything of an expert or even hugely knowledgeable about vegetation classification. Let's just say, in simple terms, that there is a hierarchy in the classification system. At the broadest scale, at the bottom of the pyramid, is the whole Box-Ironbark ecosystem, which exists in a thin, discontinuous band from the west near Ararat and Stawell to the north-east at Chiltern.

The next category within this is the ecological vegetation class (EVC), each one of which comprises one or more floristic communities (groups of plant species) which exist under a given set of ecological processes (eg. nutrient recycling, food webs and feeding hierarchies, population fluctuations) and which function in similar types of landscapes. The names of the communities reflect their geographical separation on the ground. Hence the 4 EVCs that we were immersed in at Dalyenong:

- Heathy Woodland (Western Goldfields)
- Heathy Dry Forest (Northern Goldfields)
- Box-Ironbark Forest (Western Goldfields)
- Grassy Woodland Mosaic

EVCs can occur as extensive areas of vegetation cover or as very small areas. Within each EVC are a number of floristic communities (associations or groupings of plants that co-exist in a given area). Each of these is responding to the geology, soils, landforms and rainfall. Within the floristic communities are a smaller subset again called floristic sub-communities. These represent changes within the floristic community due to variations in local environmental factors (eg. position on a slope, fertility of the soil, moisture levels, degree of rockiness).

Acknowledgements

Tim McCaw came with me on two field trips by way of preparation for this club excursion. Tim also helped me on the day, and made useful comments and corrections to this account.

Richard Goonan was able to extract from the web the EVC and track maps of the reserve – they were in colour, so were very useful, indeed essential.

The members who came in October were inquisitive and adventurous, despite the fact that in the very dry conditions there were few flowering plants and few birds. But they appreciated the woodlands for their great beauty and variety. Next time we reckon we should camp there for the weekend and really get stuck into the place, perhaps with a bit more attention paid to the four EVCs.

References

- Land Conservation Council
North Central Area Report, July 1978
- Land Conservation Council, Victoria
Final Recommendations for the North Central Area,
February 1981
- Environment Conservation Council
Box Ironbark Forests and Woodlands Investigation
Resources and Issues Report, December 1997
- Environment Conservation Council
Box Ironbark Forests and Woodlands Investigation
Final Report, June 2001
- Description and conservation status of the vegetation
of the Box-Ironbark Ecosystem in Victoria
Annette Muir, Sally Edwards, Jane Dickins
Flora and fauna technical report number 136
Department of Conservation and Natural Resources,
May 1995

Birds at Dalyenong – Sunday 14th October 2018

by Anne Bridley

Where the Archdale - Dunolly Rd crossed the Avoca river we stopped to look at the Fairy Martins and their mud bottle nests under the new concrete bridge.

Birds weren't particularly abundant in the heathy forest. There were a few more near the dam and a patch of activity along the alluvial terraces among the Grey and Yellow Box. Here Brown Treecreepers took advantage of the abundant fallen timber, a cockatoo flew out of a hollow in a very large Grey Box, a White-bellied Cuckoo-shrike was seen and a Rufous Songlark called. There were Buff-rumped Thornbills calling to each other at the hill we climbed, a Wedge-tailed Eagle scared up Sulphur-crested Cockatoos, Galahs and Musk Lorikeets, and White-browed Wood-swallows hawked overhead most of the day. Near the dam there were babblers' nests in Buloke.

Birds observed at Dalyenong by the group - Magpie, Rufous Whistler, Weebill, Brown-headed Honeyeater, White-throated Tree-creeper, Jacky Winter, Sulphur-crested Cockatoo, Black-faced Cuckoo-shrike, a male White-winged Triller, Striated Pardalote, Brown Treecreeper, Crimson Rosella, Musk Lorikeet, Red Wattlebird, White-plumed Honeyeater, Galah, White-browed Wood-swallow, Grey Shrike-thrush, White-winged Chough, Yellow-tufted Honeyeater, White-browed Babbler, Willie Wagtail, Black-chinned Honeyeater, Fuscous Honeyeater, Rufous Songlark, Long-billed Corella, Buff-rumped Thornbill, Spotted Pardalote, Wedge-tailed Eagle, Red-capped Robin, White-bellied Cuckoo-shrike.

Night-vision camera captures wildlife venturing closer to humans in Hobart

For an excellent example of citizen science, see this article about cameras set up in Hobart's suburb to see who visits at night.

<https://www.abc.net.au/news/2018-11-17/native-wildlife-braving-humans-to-find-water-after-2000-drought/10504398>

November excursion report

by John Lindner

Theme Peas of the Bendigo area

Date Sunday 18 November 2018,
8.30 am to 3.00 pm

Leader Tim McCaw, with assistant John
Lindner

Participants Ray Wallace, John Robinson,
Colin Thomas, Anne Bridley, Malcolm
Cousland, Simon Hay, Matthew Comer, Ben
Goonan and son Zekie, Joy Clusker
Visitors: Tim Young and James Stewart

Itinerary

On a round trip of about 50 km, we visited 3 sites on the boundary of the Bendigo urban area. We did a short walk at each location to find the specimens which Tim had located over several preparatory field trips.

Stop 1 Crusoe Heights Reserve Road

The reserve is located in the Bendigo Regional Park adjacent to Crusoe Heights Reserve, off Morrison Street, Kangaroo Flat. On the edge of a dry creek, we saw

- *Matted Bush-pea* (*Pultenaea pedunculata*), a prostrate plant found commonly on clay, sandy clay or stony surfaces.

- Gorse Bitter-pea (*Daviesia ulicifolia*) was found in various places by the track. The local form is the wide-leaved type with a sharp point (*subspecies ruscifolia*), whereas at Dalyenong Nature Conservation Reserve on 14 October, we had found the other form (*subspecies ulicifolia*), whose leaves are extremely narrow but still bear the sharp point.

Near the crest of a hill, in an area bounded by vehicle tracks on three sides, we found several pea species. Of the first,

- Twiggy Bush-pea (*Pultenaea largiflorens*), there were excellent examples of three distinct growth forms, all located quite close together.

- * Very small, narrow, pale-coloured leaves, the only form seen flowering.

- * Spoon-shaped, dark green leaves, very densely clustered on the stems.

- * Long, wide, pale-coloured leaves.

Towards the top of the hill, we found examples of two more species:

- Pale Wedge-pea (*Gompholobium huegelii*) – unique narrow, trifoliate leaves, slightly bluish-green and

- Bushy Parrot-pea (*Dillwynia ramosissima*) – glabrous leaves in irregular tufts.

On the crest of a rocky ridge, situated amidst a very species-rich heathland (two eucalypts and 14 other species of shrubs or grasses, which included Pale Wedge-pea and Gorse Bitter-pea), we found

- Showy or Silky Parrot-pea (*Dillwynia sericea*), a shrub with its dark green leaves closely pressed to the stems, and with both tiny bumps and hairs on the surface.

Stop 2 Kairn Road, One Tree Hill Forest

Kairn Road is located about one kilometre south-east of Kennington Reservoir on the Strathfieldsaye Road. It goes into the forest beside Victory Christian College, and we went down as far as the remains of an old mud brick building, from where people once ran a small farm. The walk aimed to see the pea species with purple or mauve flowers:

- Purple Coral-pea or False Sarsparilla (*Hardenbergia violacea*), a climber either on a shrub or in grass along the ground.

- Twining Glycine (*Glycine clandestina*), a very cryptic plant with groups of 3 leaflets, amongst grass at the base of rocks.

- Austral Indigo (*Indigofera australis*), a medium-sized shrub with pinnate leaves, soft and bluish-green. One large specimen, protected by rocks from wallaby grazing, bore a thick woody stem and was about one metre in height.

- Common Hovea (*Hovea heterophylla*), a small subshrub with diverse leaf shape (termed 'dimorphic'). There are usually wider and shorter leaves at the lower end of the stem, which become narrower and more elongated further along.

Stop 3 Maggs Lane, Wellsford State Forest

Maggs Lane is located in the Junortoun area about 2 kilometres north of the McIvor Highway. Reaching this spot is a bit complex, but you get there via Popes Road and Wellsford Roads. We saw our final 3 species for the day:

- Narrow-leaf Bitter-pea (*Daviesia leptophylla*) – the phyllodes (rather than true leaves)

are quite narrow and borne erect on stems which are slightly ridged or striated.

- Grey Parrot-pea (*Dillwynia cinerascens*) - the leaves are distinctly thin and glabrous, smooth and bearing small hooks at the tips (recurved).
- Common Eutaxia (*Eutaxia microphylla* variety *microphylla*) – a very variable shrub, (prostrate to 1.0 metre tall) bearing very tiny leaves in opposite pairs (decussate).

Future issues of *Whirrakee*

Throughout the day, Tim fed us interesting little tidbits about the Fabaceae, a huge family both in global terms and within Australia:

- There are three major subfamilies.
- The fruits are pods containing seeds, and the drying pods often twist spirally, in species such as *Daviesia*, to eject seeds away from the parent plant.
- They fix free nitrogen using special bacteria in nodules on the roots.
- The flowers have 5 petals which are arranged in different ways according to the species.
- Many species produce a number of chemical defence compounds to deter herbivorous mammals and insects. Some can be very toxic to a number of animals and insects, and even to humans.

It is proposed that in 2 or 3 future editions of *Whirrakee* that a full description of the species in the Fabaceae family ('peas') in the Bendigo area will be attempted. This includes 13 + indigenous species. It will include descriptions, photos and perhaps diagrams. As well as species descriptions, there will be discussions of their ecology, adaptations and other related information.

Acknowledgement and thanks

Tim McCaw did a hell of a lot of field work to locate the 13 species so that we could go more or less directly to each one. Tim also worked very hard on his "script" to be used on the day. He made numerous corrections and improvements to this report. His unseen efforts are a testimony to what goes in to making a very successful field trip.

Bird Survey – Coliban Water Epsom Plant 16 November 2018 by Anne Bridley

Numbers of waterbirds were lower than usual, and there were fewer species of other birds along the Bendigo Creek than I would have expected. May Swamp was too high for small waders, but did have a group of Avocets and a Freckled Duck. A pair of Black-fronted Dotterels were flying back and forward on the stony edge of Lagoon #6. Thanks to Lisa Cox from Coliban Water for accompanying us.

Waterbirds: Black Swan 3, Freckled Duck 1, Wood Duck 5, Black Duck 17, Shoveler 6, Grey Teal 10, Chestnut Teal about 25, Hardhead 12, Blue-billed Duck 9, Musk Duck 5, Australasian Grebe 2, Hoary-headed Grebe 8+, White Ibis 39, Pelican 2, Little Pied Cormorant 3, Great Cormorant 3, Swampheh 1, Dusky Moorhen 1, Black-tailed Native-hen 3, Coot 3, Red-necked Avocet 30+, Black-fronted Dotterel 3.

Other species - Black-shouldered Kite 1, Square-tailed Kite 1, Black Kite 1, Masked Lapwing, Spotted Dove, Common Bronzewing, Peaceful Dove, Kookaburra, Sacred Kingfisher, Rainbow Bee-eater, Musk Lorieet, Eastern Rosella, Red-rumped Parrot, Superb Fairy-wren, Red Wattlebird, Noisy Miner, White-plumed Honeyeater, Striated Pardalote, White-browed Scrubwren, Willie Wagtail, Australian Raven, Welcome Swallow, Reed-Warbler, Little Grassbird, Blackbird, Red-browed Finch.

November Committee Notes Secretary Richard Goonan

After some research and consideration by the Committee and Supper Coordinators, a new hot water dispenser (urn) has been purchased for use at meeting to provide hot water in the hall for cuppas. The new unit was used at the November meetings and performed very well. As the club increases its range of equipment and other assets the Committee is considering the need for a new position of responsibility

that will keep track of these items. Members interested in helping are encouraged to contact the committee.

Campouts have been a fond part of the club's past. The Committee is interested to know if any members are willing to assist in developing a plan for running some campouts in 2019.

Thank you to all the members who have already renewed their membership. For anyone yet to finalise this, please make sure you complete this asap.

To ensure Club data and files are maintained consistently Committee asks all members who may hold any files on their personal computers related to club business and activities (current or historical) to contact the Secretary and arrange their transfer. Alternatively, please bring them to a meeting on a memory stick or optical disk.

November Observations

Collated by Richard Goonan

2/11/2018 – Ben Goonan, Kennington Reservoir: Freckled Duck (1). Individual female bird observed in the afternoon. Hard-head (6) also observed.

9/11/2018 – Ben Goonan, Lake Weeroona: Peregrine Falcon, observed circling relatively high above lake with something in its talons.

12/11/2018 – Richard Goonan, Lake Tom Thumb: Olive Legless Lizard (1) found in a small open grassy area that would not initially appear to be outstanding habitat. It appears that the exotic annual grasses present provide a suitable grass sward that replicates the appropriate structure and food resources for the species to inhabit. Further surveys are planned for surrounding areas.

16/11/2018 – Dale Gibbons, Eiles Rd, Maiden Gully: Square Tailed Kite (*Lophoictinia isura*). Hunting. Circling just above the tree canopy, some years since they have been here locally.

24/11/2018 – Ben Goonan, Kennington: Yellow-tailed Black Cockatoos (21). Two groups of three flew over followed by a larger

group of fifteen, all heading west towards town.

24/11/2018 – Malcolm Cousland, Flora Hill Bushland Reserve: Yellow-tailed Black Cockatoos (3) this afternoon flying out of a pine tree in Flora Hill Bushland Reserve. Also 3 were seen last Sunday morning (18th) flying over the Golden Square Hall before the BFNC excursion.

26/11/2018 – Ben Goonan, Rocky Rises Road: Red-capped Robin (1), Eastern Brown Snake (1), both observed in recently burnt area.

27/11/2018 – Richard Goonan, Victoria Hill, Ironbark: Koel heard calling from near the Goldmines Hotel.

27/11/2018 – Richard Goonan, Victoria Hill, Ironbark: Christmas Beetle (1). Once common, these beetles are now reported to have declined substantially. Any local records would be valuable in tracing the species change in abundance. Did you see them around in the past? How many? How often? Do you still find them, occasionally? Regularly? Not at all?

Additional observation

Keith Graham, Arnold West, 2/11/18 (per Anne Bridley) 2 Wedge-tailed Eagles nests, each with 1 chick. Keith hadn't seen an eagle's nest locally until about 20 years ago. He thinks their numbers have increased. There are 6-8 nests in his area.

A good news story about re-introductions

Quolls are considered extinct in the wild on mainland Australia. Of 20 quolls introduced at Booderee National Park (NSW), only four survived, the others were killed by cars, snakes and foxes. The four surviving animals were moved to a more remote section of the park... The arrival of six juvenile quolls outside the pouch recently has giving researchers hope that the population may survive. See:

www.smh.com.au/environment/conservation/juvenile-quolls-at-booderee-spotted-outside-the-pouch-for-the-first-time-20181109-p50f5s.html

Diary

All Club meetings are held at the Golden Square Hall, Old High St Golden Square, unless otherwise indicated.

Wednesday 12th December 6.30pm

Please note the earlier starting time.

The committee will provide BBQ chickens and a dessert dish. Members are encouraged (but not required) to bring a plate to share (mains or dessert); BYO light refreshments.

Our speaker is John McCallum who will talk about his and Megan's trip to India this year. All are warmly welcome.

There is no meeting in January. The next general meeting is on

Wednesday, 13th February 7.30pm

Excursions

Weekly Naturalist Walks – Nature Knowledge Exchange

Saturday: 9am-12pm

Members and visitors welcome.

Meet at the **Golden Square Hall from 8:50am to register, depart 9:10am.**

Please see page 3 for more details and check the club's website for destinations and dates.

Nestbox Monitoring Activity

Contact Karen if you want to be put on notification list 0417377223

NightLife – wandering in the bush after dark

See page 3 for more information and e-mail info@bendigofieldnaturalists.asn.au to RSVP.

Naturalist Workshop

The next workshop will be held on the 27th of February. Put it in your diaries now.

Family Nature Club

Check out their website. **Registration:** Bendigonatureclub@gmail.com or 5443-1326 bendigofamilynatureclub.blogspot.com.au

Nature photography in the Goldfields

Where: Newstead Railway Arts Hub, 8a Tivey Street, Newstead

When: Starts Saturday 1st December 2018, 10am – 4pm

Opening: 2nd December 11am, refreshment provided, everyone welcome

Open 10am – 4pm on the first four weekends in December: 1st and 2nd, 8th and 9th, 15th and 16th, 22nd and 23rd.

Contact: Bronwyn Silver for more details: 0448751111

Editor's note: *See the 28th November post on the 'Natural Newstead' blog for Geoff Park's musings on the nature of nature photography.*

SEANA Autumn meeting 2019

The SEANA Autumn meeting for 2019 is to be held at Port Fairy on Saturday 23rd March 2019.

The 1st circular, registration form and accommodation options at Port Fairy can be obtained from the secretary, Richard Goonan.

This gathering is being held in place of the usual 'camp' as we have been unable to find a club willing to host our traditional style of event. But we hope that members will like the idea of gathering at a Victorian location with plenty to offer naturalists.

Phil Rayment (SEANA President)

(N.B. completed registration forms and payment are due by 1st of February)

Wildlife Rescue & Information Network Inc.

W.R.I.N. is an organisation dedicated to the care of orphaned, sick or injured native animals. It is fully endorsed by the Dept of Sustainability and Environment. Please call our Emergency Number for Help for Fauna in Need. Phone: 0419 356433. WRIN meetings held on the 1st Saturday of February, April, June, August, October and December at 1pm the Golden Square Hall.

Submission deadline for the February *Whirrakee* is Monday the 28th January.
