

Castlemaine Naturalist

June 2021

Vol. 46.5 #498

Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Scarlet Robin
Photo by Euan Moore

May Meeting Presentation: Understanding Rakali – Australia's 'Otter'

On Friday 14th May, Geoff Williams of the Australian Platypus Conservancy presented a fascinating talk to the club on the Rakali.

The scientific name for the Australian native water rat is *Hydromys chrysogaster* which roughly translates as 'yellow bellied water mouse'. Frequently confused with the introduced common black rat, *Rattus rattus*, it was hunted as a pest and for its fur. In order to restore its public image, its common name was changed to the aboriginal Rakali in the mid-1990s.

The semi-aquatic Rakali shares several attractive characteristics with Otters. Rakali have relatively flat heads with dense large whiskers and strong jaws. The ears are streamlined and can be folded flat against the head. They have dextrous front feet and the hind feet are partially webbed. The thick conical tail is used as a rudder and has the distinguishing white tip which can vary from 50% to 2% of the length of the tail. Sometimes individuals have been recorded as feeding while floating on their back – a behaviour very similar to that of Sea-otters. The Rakali is fairly big by rodent standards - male Rakali and female Platypus are about the same size.



Rakali cleaning its face and whiskers after catching and eating prey. Note the whiskers and webbed hind feet. Lake Wendouree. Photo by Carol Hall

While it is not known if Rakali dig their own burrows, they have been known to use unoccupied Platypus burrows. Rakali 'live fast and die young', surviving about 3 years in the wild. Females are sexually mature at about 4 weeks. The gestation period is

approximately 34 days, producing 3-4 offspring for each of the 2 litters per year. The young will suckle for about 4 weeks and are independent at about 8 weeks.

Fish, large aquatic insects, crustaceans and mussels are common food sources, but Rakali have been known to attack water birds and to consume eggs and carrion. Remarkably, Rakali have devised a safe way for killing cane toads by flipping them over and biting the stomach so avoiding the poison glands on the back. They will also venture onto dry land for other prey and have been known to eat pet food.

Rakali are thought to have a wide home range of several kilometres along the length of creeks and rivers but can also scavenge on land, sometimes in urban areas, and even coastal and estuarine waterways. In the colder winter months, Rakali probably spend more time out of the water in order to warm up.

There is no evidence that Rakali will kill Platypus but they are known to cross paths. With their strong jaws and teeth, Rakali are believed to take nips out of the tails of Platypus, probably to discourage them as competitors for food. On the other hand, Rakali are preyed by foxes and cats. Humans hunted them for their fur to the edge of extinction. They can drown in the deadly opera house yabby traps (as can Platypus and Turtles), which have been banned in Victoria since 2019 (although illegal deployment of these traps continues to some extent).

While the Rakali have a national conservation rank of 'least concern', their habitat is under threat. Careful planning and design of wetlands is required to reverse the trend. Plastic-lined irrigation channels cannot support Rakali habitat. With the threat of climate change, smaller recovery gaps between major environmental events such as droughts, fires and floods, the conservation agenda needs to address these issues.

Sat 15th May Excursion – Campbells Creek, “Rakali and Platypus habitat” with Geoff Williams

Geoff returned the following morning (freezing cold) to lead 13 members and 1 visitor along a stretch of Campbells Creek pointing out to us some of the elements of the creek which are conducive to Rakali habitat – native trees along the banks with overhanging branches that drop leaf litter to support the food chain and with roots stabilising the bank, creek-side shrubs and bushes to give shelter from predators, and overhanging banks providing sites for burrows. Willows and similar introduced riparian trees do not provide suitable habitat for either Platypus or Rakali. Variation in the stream is also important with shallow, fast-flowing areas interspersed with pools up to 1.5m deep providing habitat and food for both species. Geoff congratulated the Campbells Creek Landcare group for their excellent work over the years, creating perfect Rakali and Platypus habitat, borne out by their frequent sightings in this area.



Rakali in Jim Crow Creek. Note the characteristic white-tipped tail.

Photo by Jill Williams

Unfortunately we didn't see any Rakali during our mid-morning visit, but Geoff gave us advice on good times and places to see these wonderful creatures living on our door-step. In fact I was rewarded, after a few chilly morning attempts, with wonderful sightings of two Rakali in the Jim Crow creek (see above)! Thanks Geoff for opening our eyes to the world of the Rakali.

Sightings of Rakali and Platypus can be reported via the Australian Platypus Conservancy website; all reliable sightings are then uploaded to the Atlas of Living Australia (ALA) at the end of each seasonal quarter. Sightings can also be reported directly to ALA using iNaturalist.

Email: platypus.apc@westnet.com.au
Webpage link: <https://platypus.asn.au>

Jill Williams

An Octogenarian Walk around Kalimna Park

Denis Hurley

As we started on the Circuit Track, memories came back to me of joining Ern and Lesley Perkins and Richard Piesse to "do quadrats". I remember Ern assigning Lesley and me to count the newly emerging *Ozothamnus obcordatus*, present in their thousands, while he and Richard took the easier plants and always finished first.

It was rewarding to be able to see so many species close to the track because it helped avoid trampling. Rain in small doses has enabled new growth in a wide range of species, particularly in sites made more favourable by the washed accumulation of soil and fire ash.

Nature's retaining walls – fallen logs, logs deliberately placed, rock reefs – have helped stabilise steeper parts of the Park. Sadly, the fire track put in some 4 decades ago has not been so lucky and is deeply gouged. It has not attracted natural revegetation to slow its destruction and demonstrates how fragile our sites and soils are and how easily heavy machinery can damage even our toughest plants.

Hammocks of community spiders (as Rita Mills calls them), dead within their webs and slung on their once-bushy habitat, suggested a broiling or other detrimental experience out there on the



Hammocks of "community spiders" hang in a Hakea bush. Photo by Denis Hurley

hillside. However, Bushy Needlewoods (*Hakea decurrens*) abounded and were able to offer a 'COVID-free highrise hotel' to some survivors.

Tall bluebells (*Wahlenbergia stricta*) and Spreading Wattle (*Acacia genistifolia*) were in flower. There were sprouting signs of Scented Sundew (*Drosera aberrans*), Common Hovea (*Hovea heterophylla*), Primrose Goodenia (*Goodenia blackiana*), Nodding Greenhoods (*Pterostylis nutans*), Purple Coral-pea (*Hardenbergia violacea*), Honey pots (*Acrotiche serrulata*) and Cranberry Heath (*Styphelia humifusa*) as well as some thriving Dianella, Lomandra and Austrostipa.

A White-eared Honeyeater, also heard when a group of CFNCers walked recently with the high school students, reminded us of its presence and a small flock of Varied Sittellas worked the bark of some Red Box (*Eucalyptus polyanthemos*) on a nearby ridge.

A healthy lot of Rough Mint-bush (*Prostanthera denticulata*) carrying seed-pods from last season was dotted throughout the area, as was Rough Wattle (*Acacia aspera*). In the area burned about 2010 both of these bushy species seemed to be more prolific with fewer groundcover species visible.

This area appears to promise a lovely scene in the spring of 2021!

June (1943) Observations

George Broadway

Specimens sent in by readers of "Wildlife" magazine and published in the June 1943 edition. This month the war was actually mentioned. It was in the form of an editorial discussing post-war reconstruction. It expressed opposition to the proposal that the National Parks which had been utilized for wartime purposes should be rehabilitated by planting exotic trees. This would be a false step which would be difficult to rectify.

Readers had sent in a lot of specimens this month for identification. Again I find it surprising that regular readers (which they presumably are) would not have read identifications of the same specimens in previous issues. Anyway, here they are.

Insects

Horsham: Ghost Moth Aug '17

NSW: Old Lady Moth June '17

Mordialloc: Large Striped Locust *Acridium guttulosum*. One of the largest of our grasshoppers found in the coastal areas of most of Eastern Australia. Although not found as frequently as the Black-tipped Locust *Chortoicetes terminifera*, or the smaller Plague Locust, *Austroicetes cruciate*, it is not exactly rare. It is vegetarian and cannot bite but with strong hind legs equipped with spines, it can give a nasty kick.

Alphington: The large winged insect was one of the larger ants. When an ant colony has reached full size, the autumn brood produces winged adults which take to the air in thousands, mate while in the air, the males then die, the females alight, bite off the wings and establish a new colony, using the wings as food in the initial stages.

Sunshine: The caterpillar you sent would harm no-one, it is the larva of the Drinker Moth *Pinara* (Dec '16). A caterpillar causing boils or sores would suggest one of the "Woolly Bear" caterpillars or the Cup moth larva.

Rosanna: Adult Gum Sawfly, the parent of the ugly "Spitfire" grubs which form masses on Eucalypts, *Perga dorsalis* (July '16)

Stawell: Green Vegetable Bug *Nezara viridula*. (Dec '16) Introduced pest which attacks mainly tomatoes and beans.

Bendigo: Chrysalis of the Wanderer Butterfly (Dec '16)

Carlton: Young Casemoths (Oct '16) Unless very numerous and destroying foliage there is no need to do anything.

Quambatook: Little Black native bees responsible for the wild honey sometimes found in hollow trees.

No Address: Insects found in the kitchen cabinet were adult weevils. Search for weevil-infested biscuits, flour, cereal. Throw out or treat in a hot oven for half an hour. Store such food in airtight containers.

Box Hill: Ichneumon Fly, *Pissopimpla*. The "sting" on the tail is harmless to anything but caterpillars in which the insect lays its eggs, the larvae then consuming the caterpillar from the inside. (Oct '16)

Essendon: Convolvulus Hawk Moth (Apr '17)

Kyneton: Small Soldier-flies. Harmless but prey upon smaller insects which are harmful

Balwyn: The little cocoons like rice grains were around the shell of a caterpillar which the little insect larvae had eaten from the inside. They were very small Braconid Wasps whose mission in life is to lay eggs in as many caterpillars as possible.

Balgowlah NSW: Steel-blue *Cicadella* (May '21)

Tongala: Your beetle was *Paropsis*, a leaf-eating beetle like a large-sized Ladybird with little feet which move like a mechanical toy

Main Ridge S.S: Although it looked like a blowfly it was actually a friendly fly which feeds on harmful insects and does not spread disease. It is *Rutilia*, common name "Forest Fly. (I believe it also called "Robber Fly") Also Montrose

Wehla S.S: Larva of "Drinker Moth" *Pinara*. Another specimen frequently submitted Dec '16

Woorndoo: Long-faced Grasshopper *Acrida turrita*. One of the most dapper members of the grasshopper family. Eats grass but is never in sufficient numbers to be a pest. See May '18

Woomelang: Your beetle is the dark variety of *Anthrenus*, known as the Larder Beetle, Museum Beetle etc. A smaller one is the dreaded Carpet Beetle

Hawthorn: The little sand tubes found in water were homes of caddis fly larvae. They live most of their lives in water and emerge as gauzy winged adults for just long enough to undertake a swarming flight, mate and produce their eggs before dying. They form an important food source for many freshwater fishes. Instead of sand some use items of rubbish, while other use a short section of hollow reed.

Jung: The Cowboy Bug *Ptilocnemus*. So-called because of the woolly hind legs which look like the woolly chaps worn by the cowboys of the Wild West stories. It is one of the Assassin bugs but is useful because of its feeding habits. These feed on other insects, this species being particularly partial to ants, which it is said to drug before eating them.

Toorak: The "brown things" in the ants nest are commonly known as ants eggs although common sense would suggest the impossibility of this because each of

these is the size of a full grown ant. They are the pupae of the ants, the resting stage between larva and adult, and they are cared for by the colony until they are mature ants.

Spiders and Scorpions

Dandenong: Orchard Spider.

Mentioned frequently (Dec '16)

Geelong: Small scorpion, not big enough to be dangerous but could give a painful sting. Also Burwood

Murrumbeena: Orb or Cartwheel Web Spinner. *Epeira productus*. Often mentioned. May '17

Geelong: Tan Crab Spider. One of the "Huntsman" group. Light in colour it lives under bark and hunts its prey by fleetness of foot



Orchard or Bird-dropping spider with egg sacs

Miscellaneous

Lang Lang: Fruit of the Squirting Cucumber, which is listed as a noxious weed in some parts of Australia. It is particularly efficient in the distribution of its seeds; as the fruit ripens it generates considerable pressure of fluid inside it, and the seeds are contained in the fluid. When the pressure reaches breaking strain, the fluid is shot from the stalk and the fluid and seeds are shot for a considerable distance.

“Photographic Field Guide to Australian Frogs” by Mark Sanders

Frogs can be subtly different and often lack consistent features for identification. This new book published with CSIRO aims to guide adult frog identification by providing detailed *comparative* photos of key identification characters. A 'dichotomous key' is also provided to quickly identify genus or groups of similar looking frogs, illustrated using in-life examples. Where call is vital for identification, parameters are provided such as dominant frequency, pulse rate, pulses per note and number of notes per call.



PHOTOGRAPHIC FIELD GUIDE TO AUSTRALIAN FROGS

MARK G. SANDERS

The book will be available in early June - <https://www.publish.csiro.au/book/7951/>

In the bush counting bushes!

Cathrine Harboe-Ree

Under the guidance of local ecologist Elaine Bayes, who successfully applied for a grant to continue Eltham Copper Butterfly monitoring this year, a number of Field Nats members are spending a few hours each week in the bush counting *Bursaria* bushes. We are doing detailed mapping of potentially good habitat areas for ECBs, with the intent of returning to these areas in summer to see if there are ECBs present. The areas we are mapping are south of Castlemaine, starting along Dingo Park Road where adult ECBs have been found in the past, but where current habitat information is very patchy. In Kalimna Park, this mapping has been found to be a very useful tool for indicating likely locations for the butterflies. The sites being mapped this winter are important, because they are in asset protection zones and therefore subject to burning.



Mapping Sweet Bursaria (*Bursaria spinosa*) bushes will help locate rare Eltham Copper Butterflies.

Photo: <https://castlemaine flora.org.au/>

Elaine says that this mapping is particularly important given that last year the ECB numbers at Kalimna Park and in particular Castlemaine Botanic Gardens were exceptionally low. For example, the Gardens count has gone from 50-100 ECB in the 1990's and 2010-12 to only 8 in the last two summers.

The mapping process uses a mobile phone tool called Avenza Maps, in which we grade the density of *Bursaria* bushes in each 50m x 50m square of a grid constructed over the wider area.

At the moment four of us are mapping the Dingo Park Road area – Jenny Rolland, Euan Moore, Cathrine Harboe-Ree and Brian Cutler. With more people we could increase the rate at which we cover the area. If you would like to participate, you just need to be able to identify a *Bursaria* bush (and if you can't, we can help there) and be prepared to walk carefully across at times fairly rough bushland for a few hours at a time. A valuable, enjoyable and interesting walk in the bush!

To express interest in participating, please call:

Jenny Rolland – 0400 565 092 or
Cathrine Harboe-Ree – 0438 366 674.



Map showing an area being searched for *Bursaria* bushes divided into a 50m x 50m grid. After walkers move through each square, a red pin is dropped into the square on the map and labelled with the density of *Bursaria* graded A-D.

WELCOME TO NEW MEMBERS

The following have recently joined the CFNC:

Lucas Blair, Michael Chew and David Elliott.

We wish them a happy and stimulating association with the club.

CBG Oak tree – Tree of the Year!

Cathrine Harboe-Ree

The magnificent English Oak in the Castlemaine Botanical Gardens that was planted in 1863 to celebrate the marriage of the Prince and Princess of Wales has been named the “2021 Victorian Tree of the Year.”

The tree was one of nine shortlisted from the National Trust Significant Tree Register. The winner is chosen by votes, with 'our' tree gaining 625 votes out of a total of 1,590.



CBG English Oak – “Tree of the Year”

Photo: Cathrine Harboe-Ree

Details of the nine finalists can be found at:

<https://www.nationaltrust.org.au/treeoftheyear/>

Roadside Clean-up Report - Monday 17 May

Good weather and an excellent turn-up made for a quick and easy job - we were finished before 10:30 am. The volume of rubbish collected was consistent at about 400 litres. Bluebells and Magenta Storkbills were observed in flower to cheer us on. Thanks to Jenny, Euan, Marli, Jackie, Peter, Geraldine, Jeremy and Sue.

Geoff Harris

Vale Bill van Smeerdijk

We were saddened to learn this week that Bill van Smeerdijk has died at the age of 89. Our thoughts go out to Robyn and her family. Bill and Robyn were active members of CFNC for many years until they decided to move from the Woodend area a few years ago.

They regularly attended Club meetings and excursions and we particularly enjoyed their participation in camping trips. On one memorable occasion they were part of a group of 8 members who spent a week at Grindells Hut in the Northern Flinders Ranges. Other occasions included a trip to Newhaven (off the Tanami Track) and a forced 3-day stay at Tibooburra because all the roads were closed due to rain.

A Memorial Service will be held in Woodend in the coming weeks.

Hans and Anne van Gemert

Birds of Sutton Grange, May 2021 - Nigel Harland

Superb Fairywren	Long-billed Corella	Red Wattlebird
Red-browed Finch	Crimson Rosella	Galah
White-browed Scrubwren	Welcome Swallow	Striated Pardalote
Australian Magpie	Common Bronzewing	Boobook Owl
Australian Raven	Wedge-tailed Eagle	Eastern Spinebill
Laughing Kookaburra	New Holland Honeyeater	Sulphur-crested Cockatoo
Yellow-tufted Honeyeater	Honeyeater	

Three Wedgies again, possibly the same three as last month.
Nice to see the Spinebills sticking around.

Observations

Jill Williams - Found fluttering around my veranda lights.



Oxycanus antipoda (a Swift Moth) Shepherds Flat May 2021

Noel Young - European Wasp

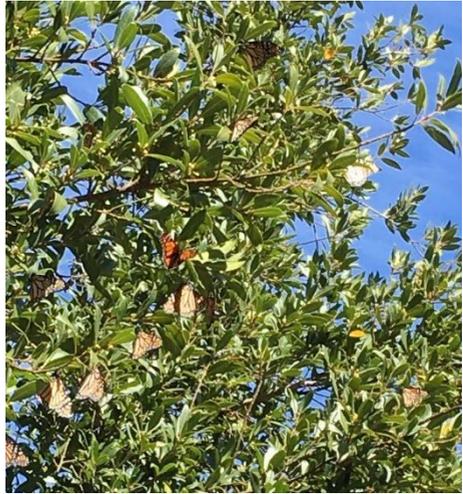
On May 13, I photographed this wasp on my back deck, and had a second encounter on May 22 when in the bush at Golden Point; one zipped in to check out my lunch box. A bit of a worry, but in both cases there was only one individual. Has anyone else seen them lately?

Ed.: Yes, an active colony at a hole in the bank of a gully off Dingo Park Rd (May 27)



Peter and Rosemary Turner -

A small tree in the Queen Mary Gardens in St Arnaud covered with many Monarchs!



Ed.: Read more about this interesting sighting, not often observed in Victoria: [Wanderer Butterfly - The Australian Museum](http://www.australianmuseum.net.au/wanderer-butterfly). These butterflies were not seen in the gardens a fortnight later suggesting they were migrating to an over-wintering site.

Peter and Rosemary Turner

– Pink Heath, Humbolt Track, Taradale



Michael Chew

Hakea decurrens is in full flower at present in Kalimna Park.

Photo: Michael Chew/iNaturalist



Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Guest speaker Friday June 11, 7.30pm
by Zoom (see details for joining on the back page)

Julie Radford, Ecologist, Bush Heritage
“Seeds of Resilience” – planting for the future!

The grassy woodland habitat of the Bush Heritage Nardoo Hills Reserve in Central Victoria is important for many flora and fauna species, but especially the threatened temperate woodland bird community. Over the last 10 years, it was noticed that the hotter, drier conditions due to climate change were resulting in eucalypt dieback in some areas of the reserve. Julie will tell us about the experimental revegetation project that has been implemented to build climate resilience into the woodlands of the reserve. Climate modelling is being used to predict future environmental conditions and seeds collected from different provenances in more northerly regions that support eucalypts adapted to a hotter, harsher environment. With the help of volunteers, large numbers of seedlings grown from these seeds are being planted in the reserve. Julie will also describe the different strategies introduced to improve the success of the plantings.

Excursion Saturday June 12 – NB all day field trip
Nardoo Hills, Bush Heritage Reserve - Orchid search

For our June excursion, we will be privileged to visit the Nardoo Hills Bush Heritage Reserve with Julie Radford. As we wander the hills, we will help Julie search for rare orchids, in particular the Robust Greenhood (it won't be in flower but rosettes are easy to find).

Meet: 8.15am at the Octopus, Duke St, opposite the Castle Motel, Castlemaine OR 9.45am in the car park at Jacka Park, corner Chapel St and Calder Highway, Wedderburn (toilet block here).

Note: the track into Nardoo Hills is a little rough, but a sedan can make it.

Bring: water, snacks, **lunch** and wear stout walking shoes (we will be walking over uneven ground).

Please comply with Government COVID-safe requirements on the day.

The Field Trip will be cancelled in extreme weather conditions.

From your Committee

Membership renewal reminder

Members are reminded that membership renewals are now overdue. This June issue of the Newsletter will be the last for non-renewals.

“Follow” our blog on the website – keep up to date!

“Follow” our blog on the website to automatically receive notifications of new posts by email, e.g. forthcoming talks and excursions, changes to the program.

Castlemaine Field Naturalists Club

COMING EVENTS

Monthly meetings will continue to be held on-line via ZOOM until further notice, commencing at 7.30pm. If you have registered for our previous webinar meetings you will be sent the link for registering with Zoom. If you have not joined before and wish to attend, please email Peter Turner at munrods1@iinet.net.au

Our guest speaker will follow the usual 'observations' session when members can share recent interesting sightings with an option to show a photo or two. If you have photos to be shown please email JPEG file(s) to Euan Moore at calamanthus5@bigpond.com by Noon on the day of the meeting.

Excursions will be held this year (subject to COVID restrictions) on the Saturday after the monthly meeting. Meet at the Octopus (opposite the motel in Duke St) for departure at 1.30pm unless otherwise advised.

Fri Jun 11 Meeting: Speaker – Julie Radford (Bush Heritage) 'Seeds of Resilience'

Sat Jun 12 Excursion: Nardoo Hills, 'Rare orchid search' with Julie Radford (All day excursion - 8.15am departure from the Octopus, details page 11)

Fri Jul 9 Meeting: Speaker - Greg Kerr (Nature Glenelg Trust) 'Shinglebacks'

Sat Jul 10 Excursion: Mt Alexander, 'Fungi search' with Joy Clusker

Fri Aug 13 Meeting: Speaker – Rod Orr (Bendigo FNC) 'Flora of Fryers Ridge'

Sat Aug 14 Excursion: 'Fryers Ridge Wildflowers' with Rod Orr

Mon Aug 16 Roadside clean-up: leader Geoff Harris

Castlemaine Naturalist - email newsletter material to: newsletter.cfnc@gmail.com

* Deadline for the July edition: **25th June**

Club website (Webmaster: Ron Wescott) - <http://castlemainefnc.wordpress.com/>

Subscriptions for 2021 (Membership forms on CFNC website)

Ordinary membership: Single \$35, Family \$50

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

2021 Committee

President:	Peter Turner	5470 6891
Vice-President:	Euan Moore	0407 519 091
Secretary:	Jenny Rolland	0400 565 092
Treasurer:	Geoff Harris	0418 392 183
Newsletter Editors:	Noel Young 5472 1345, Jenny Rolland 0400 565 092	
Committee:	George Broadway	5472 2513
	Cathrine Harboe-Ree	0438 366 674
	Jill Williams	0437 751 824
	Dianne Thomson	

**Castlemaine Field Naturalists Club Inc. PO Box 324, Castlemaine, 3450.
Inc #A0003010B**