



Marbled Gecko
Christinus marmoratus
Photo: Euan Moore



Thick-tailed Gecko
Underwoodisaurus milii
Photo: Brendan Sydes

“Climate Coping Strategies of Geckos at Mt Korong”

Friday 12th September, Wedderburn Weekend

Our September meeting was part of a weekend excursion to Wedderburn, where, on the Friday evening Professor Michael Kearney from the School of Biosciences at the University of Melbourne was our guest speaker. Since childhood, Michael has loved exploring the bush looking for creatures. He has been fortunate to be able to combine this interest with forging a highly successful academic career, having been recently elected a fellow of the prestigious Australian Academy of Science. Michael’s work examines how organisms are limited by their environment. He has built models which may be used to predict conditions where a species is most likely to thrive. This has relevance for many areas of conservation including threatened species and the spread of pest species.

Michael has been working at nearby Mt Korong since 1994. It is a special place for reptiles and amphibians with 19 species of reptiles and 7 species of amphibian recorded from the area. Amongst the reptiles are two species of gecko, Marbled Gecko, *Christinus marmoratus*, and Thick-tailed or Barking Gecko, *Underwoodisaurus milii* which were the main subjects of Michael’s

research. Readers may be familiar with the Marbled Gecko which often shares our houses around Castlemaine.

The two species inhabit the same general environment of the granite outcrop with open Eucalypt woodland and tall shrubs, mainly *Acacia spp.* This area is drier than around Castlemaine and has higher summer temperatures but is still subject to cool to cold weather in winter. There are seasonal soaks where water reaches the surface, but overall water availability is a limiting factor for many species.

Comparison between two species of gecko		
	Marbled Gecko	Thick-tailed Gecko
Weight	5gm	30gm
Snout-vent length	70mm	100mm
Daytime shelter	Crevices (rock or wood)	Horizontal crevices, burrows
Mating season	Autumn	Spring
Number of eggs	2	2
Clutches per annum	2	1
Egg shells	Hard – retains water	Soft – absorbs/loses water
Population density	150/ha	30-50/ha

The Castlemaine Field Naturalists Club acknowledges the Dja Dja Wurrung community as the Traditional Owners and Custodians of the Country where we meet and study the natural environment. We pay our respects to their Elders, past, present and future.

Michael's research looked at how these two nocturnal species responded to their environment with a particular emphasis on their response to daily and seasonal temperature variation.

Thermal loggers were used to record the body temperatures of 39 Marbled Geckos as well as ambient temperatures within their habitat. Daytime body temperatures ranged from 9°C-34°C, peaking in the middle of the day. Body temperatures were higher in summer than in spring. Marbled Geckos will tolerate body temperatures ranging from 7°-31°C with their lethal maximum being 43°C, however their preferred body temperature is in the 23.6°-26°C range although they may still be active when the temperature is as low as 6°C.

Within their environment the temperature beneath rocks, where they spend most of their times varies on a daily and seasonal basis. There is also temperature variation beneath a single rock at any point in time. In summer the temperature beneath some rocks may be above their lethal limit. Geckos are active at night but must seek shelter for the day.

An important survival strategy for these geckos is their shelter selection. Geckos selected shelter that was warmer in spring and cooler in summer with the temperature in summer shelters being closer to their preferred range. The shelter selection strategy was highly effective at maintaining body temperature below the upper temperature threshold. In summer, temperatures beneath rocks may be too high, sometimes above the lethal limit. In this situation geckos may adopt a standing posture where only their feet are in contact with the rock, allowing air to flow freely around their body. Although not actively social, geckos show some tendency to cluster under rocks where temperatures are closest to optimal.

Fluorescent pigment was used to track geckos at night. This assisted the study of their behaviour while active. Marbled Geckos forage in trees so when active will be located on the trunks and branches of nearby shrubs and trees. In summer individuals were tracked to deep



Michael giving his presentation.

Photo: Lou Citroën

crevices where they sheltered during the day where it was cooler. Thick-tailed Geckos, by contrast, forage on the ground. In summer months they were tracked to holes such as rabbit burrows to shelter where temperatures are lower and closer to their preferred body temperature.

An experiment was set up where an array of different sized stones was placed so that a range of shelter for the geckos was created. This was known as 'Lizard Henge'. This allowed examination of the physical attributes of different shelters such as rock size, surface area, thickness, under rock cavity temperature and substrate temperature. This was later fed into computer models to determine the critical elements of their environment at different times of the year.

The geckos choose their shelter (rock) at night when the rock is probably coolest but need to know how it will warm up during the day. It appears that rock thickness is less important than the size (area) of the rock. In summer there is a preference for rocks that will be shaded during the day. There was a strong correlation between under-rock temperature and rock use in summer but a much weaker correlation in winter.

The model developed from this work predicts what happens under the rock and how the geckos behave. It says:

- Go deep in summer when it is warmer and avoid extreme heat
- Stay shallow in winter and get more warmth from the sun

- Choose shade in summer to avoid the heat.

This is exactly what the geckos do!

Under the current climatic conditions the geckos are active for about 1500 hours per annum. With predicted climate change they will probably be active for nearly 1800 hours per annum but will need greater access to shade. This latter requirement may be problematic if there is less vegetation surviving on the mountain.

One of the new discoveries that Michael made was related to hydration management for Thick-tailed Geckos. They are vulnerable to dehydration. They do not drink water from pools but from wet rock surfaces. Higher humidity under rocks and having wet rocks nearby is important for their survival. In the past it had been thought that their tails were a fat store for lean times but Michael's work showed that the tails are used for storing water and that they become flaccid when the animal is dehydrated and robust when the animal has sufficient water.

One of the major threats to all reptiles, as with most other plants and animals is habitat loss. The other major threat, particularly for reptiles is the illegal collection by poachers who not only reduce the population by removing individuals but also damage the reptile habitat by turning over rocks and breaking open logs.

Thank you Michael for a very informative talk.

Euan Moore

Excursion to Mt Korong NCR with Prof Mike Kearney

Saturday 13th September, AM, Wedderburn Weekend

On Saturday 13th September, our morning excursion to Mt Korong was the sequel to a fascinating and informative presentation on the previous night by our guest speaker, Prof Mike Kearney, on the specialised subject of "Climate coping strategies of the geckos of Mt Korong" at the Wedderburn Community House.

Mt Korong stands at around 364m above sea level and consists of granite outcrops with towering tors. The name *Korong* in the Dja Dja Wurrung language alludes to canoe or boat. Indeed, Wedderburn was originally known as Korong, but the name was changed in deference to William Wedderburn of the Goldfields Mounted Police in the late 19th century. The mount is situated within the Loddon Shire.

It was thrilling to see such interest in the Wedderburn weekend, with members coming from as far afield as the Melbourne suburbs of McCleod and Albert Park. We could not have asked for better weather! Thanks to Euan and Jenny for their attention to every detail. The Community House Dining Room provided an excellent venue for evening meals (ably catered for by the nearby Hotel) and speakers.

A posse of no fewer than 19 gathered at the 'Jacka Park' car park at 9am for instructions, directions and the



Tree Skink *Egernia striolata*
Photo: Lou Citroën

customary decontamination of our shoes with Phytoclean.

Arriving at our destination a short 15 minutes' drive later, we were soon on our way, walking up the slopes at a leisurely pace. Whilst no gecko made an appearance, the delightful flora and fauna identified are given in the list at the end of this account.

Mike pointed out a beautiful Tree Skink, *Egernia striolata*, around 16 cm in length, sunning itself on a large boulder, permitting the intruders a brief photographic opportunity before disappearing in a flash.

Amongst the flora, the Tiny Yellow Star, Tall Sundew, and Rock Isotome were some of the stand-outs. Of the few fungi seen, the Morel was the winner. Several species of Acacia provided a blaze of yellow and a flowering Grey Mistletoe on Dean's Wattle was attracting the Honeyeaters. Gilbert's Whistlers were



Morel fungus. *Morchella* sp.
Photo: Euan Moore

continually calling lower down the slopes and a group of Southern Whiteface was a delight to see.

A brilliant tiny *Small Grass-yellow* butterfly was well-spotted by Jenny

and only just captured by camera before darting off. Three beautiful moths were also spotted.

As we reached the base of the granite peaks there were some breathtaking views to be had. Those who went on to scale a side peak of Mt Korong were further treated to 360deg views. On the way to the peak, Mike pointed out "Lizard Henge" that he had described the previous evening, a "hot spot" for the reptiles of his studies. This was a collection of smallish rocks spread over a large flat rock surface. We were advised not to turn over any rocks as this would disturb any creatures, including reptiles, underneath.

We noted quite a few dead or dying shrubs and trees on this walk that Mike pointed out had succumbed to the recent very dry period, but with the recent rains, new growth was apparent and there was a good ground cover including a wonderful display of very small plants such as Stonecrop, *Crassula sieberiana*, and Pink Purslane, *Calandrinia calypttrata*, growing in damp soaks at the edge of the rocks.



Pink Purslane. *Calandrinia calypttrata* Photo: Euan Moore

Everyone was back to the cars by about midday and soon returning to downtown Wedderburn for lunch in the sun.

Lou Citroën

Flora and Fauna lists for Mt Korong NCR

Geraldine Harris, Euan Moore, Cathrine Harboe-Ree (and for all F&F lists for the weekend)

Plants

Australian Stonecrop, *Crassula sieberiana*

Blakely's Red Gum, *Eucalyptus blakelyi*
Chocolate Lily, *Arthropodium strictum*

Deane's Wattle, *Acacia deanei*
Early Nancy, *Wurmbea dioica* subsp. *dioica*

Green Rock Fern, *Cheilanthes austrotenuifolia*
 Grey Mistletoe, *Amyema quandang*
 Pink Purslane, *Calandrinia calypttrata*
 Rock Isotome, *Isotoma axillaris*
 Small Wrinklewort, *Siloxerus multiflorus*
 Tall Raspwort, *Gonocarpus elatus*
 Tall Sundew, *Drosera* sp.
 Tiny Yellow-star, *Pauridia glabella* var. *glabella*
 Wallowa, *Acacia euthycarpa* subsp. *euthycarpa*
 Wallowa. *Acacia euthycarpa* subsp. *oblanceolata* (in Victoria confined to Wedderburn – Wychitella)
 Wedge-leaf Hop-bush, *Dodonaea viscosa* subsp. *cuneata*
 * Heron's-bill, *Erodium* sp.
 * Onion Weed, *Romulea rosea*
 * Red Bartsia, *Parentucellia latifolia*
 * Spreading Night-phlox, *Zaluzianskya divaricata*
 * Yellow Galaxia, *Moraea fugacissima*
 * = Introduced

Birds

Australian Magpie
 Black Kite
 Black-eared Cuckoo
 Black-faced Cuckoo-shrike
 Brown Treecreeper
 Diamond Firetail
 Eastern Rosella
 Fairy Martin (nests)
 Galah
 Gilbert's Whistler
 Grey Shrikethrush
 Hooded Robin
 Horsfield's Bronze-cuckoo
 Long-billed Corella
 Mallee Ringneck
 Pallid Cuckoo
 Red-rumped Parrot
 Rufous Whistler
 Singing Honeyeater
 Southern Whiteface
 Spiny-cheeked Honeyeater
 Sulphur-crested Cockatoo
 Wedge-tailed Eagle
 Weebill

Welcome Swallow
 White-browed Babbler
 White-plumed Honeyeater

Butterflies

Australian Painted Lady Butterfly, *Vanessa kershawi*
 Caper White Butterfly, *Belenois aurota*
 Meadow Argus Butterfly, *Junonia villida*
 Small Grass Yellow Butterfly, *Eurema brigitta*
 Australian Plague Locust, *Chortoicetes terminifera*
 Scarlet Percher, *Diplacodes haematodes*

Others

Morel, *Morchella australiana*
 Puffball sp.
 Common Eastern Froglet, *Crinia signifera* (h)
 Tree Skink, *Egernia striolata*

Excursion to Wychitella NCR with Trudy & James Nelsson

Saturday 13th September, PM, Wedderburn Weekend

This was our second excursion from Wedderburn, a town, by now, abuzz with Loddon Valley Grand Finals fever for various sports!

This time after lunch, we were heading north to Wychitella Nature Conservation Reserve (NCR) with Trudy and James Nelsson of the Wedderburn Conservation Management Network (WCMN).

We first gathered on the outskirts of Wedderburn in the quiet of Hard Hills Reserve to meet Trudy and James and learn of their conservation work. They gave us an overview of the astonishing breadth and depth of conservation effort they had set in train around Wedderburn through the creation of the Network in 2003; 22 years ago.

The WCMN mission is to foster a collaborative and inclusive approach to environmental stewardship. The Committee comprises residents and landholders, and it collaborates with representatives of Dja Dja Wurrung, Bush Heritage, Landcare, Victorian Malleefowl Recovery Group (VMRG), Wottenhall Environment Trust, Trust for Nature, Department of Energy,

Environment and Climate Action, Parks Victoria, Loddon Shire Council and the North Central Catchment Management Authority.

Trudy explained that while there are seven who make up the management group, another 30 to 40 volunteers carry out the work, some that are specialists for the various task forces.

The network's admirable goals cover biodiversity conservation, cultural landscape restoration, education in sustainable practices, climate change

mitigation and adaptation, and environmental advocacy.

At the Hard Hills reserve, Trudy and James opened with an outline of one aspect of their conservation efforts; plantings of the endemic Wedderburn Wattle (*Acacia euthycarpa* subsp. *oblanceolata*), an understory bush, having both cultural and environmental significance, which has led to a resurgence of biodiversity across birdlife, reptiles and insects. They also described their seed recovery program for this Wattle.

Another ongoing project is control of the invasive 'Wheel Cactus' (*Opuntia robusta*).

The convoy, led by Trudy and James, then drove to the Wychitella Nature Conservation Reserve where we were able to see an inactive Malleefowl mound. Here we learnt of other aspects of the WCMN work, which include conservation efforts for an isolated population of the endangered Malleefowl. Trudy and James explained the amazing story of mound building and temperature control for egg incubation by the birds and the highly vulnerable exit of newly



Wedderburn Wattle, *Acacia euthycarpa*. Photo: Jenny Rolland

hatched chicks to fend for themselves. Until recently, it was thought that there were just two or three breeding pairs left in the Wedderburn area, but recent work, with the help of LIDAR, suggests that there may be another two pairs and 43 mounds (mostly inactive).

The network's other conservation efforts include an eradication program for feral foxes and cats; the fox being



James & Trudy showing the group an inactive Malleefowl mound.
Photo: Lou Citroën

the bigger problem for taking the Malleefowl eggs. Other predators of the Malleefowl include the native Harriers, Wedge-tailed Eagles and Quolls.

The excursion concluded with a happy group photo before returning 'to base'. You can check out the amazing work done by the *Wedderburn Conservation Management Network* (WCMN) on their website <https://www.wedderburncmn.org/>.

Lou Citroën

Flora and Fauna Lists, Saturday September 13th, PM, Hard Hills Reserve

Plants

Gold Dust Wattle, *Acacia acinacea* (planted)
Olearia *pannosa* (planted)
Rough Wattle, *Acacia aspera* (planted)
Wallowa, *Acacia euthycarpa subsp. oblanceolata* (in Vic., confined to Wedderburn - Wychitella) (planted)

Birds

Australian Magpie

Galah

Noisy Miner

Red Wattlebird

White-winged Chough

Other

Common Eastern Froglet, *Crinia signifera*

Pobblebonk, *Limnodynastes dumerilii*

Flora and Fauna Lists, Saturday September 13th, PM, Wychitella NCR

Plants

Blue Mallee, *Eucalyptus polybractea*
Dusky Fingers, *Caladenia fuscata*
Gold-dust Wattle, *Acacia acinacea*
Small Mosquito Orchid, *Acianthus pusillus*
Spoon Cudweed, *Stuartina muelleri*

Twining Fringe-lily, *Thysanotus patersonii*

Birds

Grey Shrikethrush

Inactive Malleefowl mound

Weebill

Flora and Fauna Lists, Saturday September 13th, PM, Skinner's Flat Reserve

Plants

Black-anther Flax-lily, *Dianella revoluta*
Bushy Parrot-pea, *Dillwynia ramosissima* (with spines)
Grey Everlasting, *Ozothamnus obcordatus*
Spreading Wattle, *Acacia genistifolia*

Birds

Australasian Grebe
Black-fronted Dotterel
Corella sp.
Eastern Rosella
Galah
Great Cormorant
Hoary-headed Grebe
Little Black Cormorant

Magpie Lark

Pied Butcherbird (h)

Pied Cormorant

Red Wattlebird

Welcome Swallow

White-plumed Honeyeater

Willie Wagtail

Yellow-billed Spoonbill

Orchids in the Inglewood, Kooyoora and Goldfields region

After dinner on Saturday evening, CFNC member and orchid expert Russell Stanley spoke to us about what we can only describe as his superhuman efforts to locate and identify orchids in the Inglewood, Kooyoora and Goldfields region. This is a labour of love for Russell, and we

were not surprised on the following day when he revealed that the t-shirt he was wearing featured the quote: "Orchid Hunter [noun]. Drives hundreds of kilometers to the middle of nowhere to photograph one flower"! His knowledge is extraordinary and his dedication to tracking down each

and every rare or rarely sighted specimen is amazing.

Russell spoke to us about the rarer species that grow in this region, such as *Caladenia audasii*, the Mclvor Spider-orchid, of which fewer than eight plants – carefully protected – are

known in the wild. The main part of his talk was to run through the contents of his new field guide to the region's orchids, which he had hoped to have finished by now, however the last few seasons have been poor and so he has had to extend the project. The guide will be a revision and expansion of the guide he published for The Friends of Kooyoora in 2021, "Orchids of the Inglewood & Kooyoora Areas".

One of Russell's challenges – and a challenge for anyone interested on orchids – is that there has been, and continues to be, significant changes to the names of orchid species. These changes are mainly the result of

improved scientific techniques for identifying species, but it is also driven by specialists challenging conventions such as adopting different names in different Australian states for what are arguably the same species.

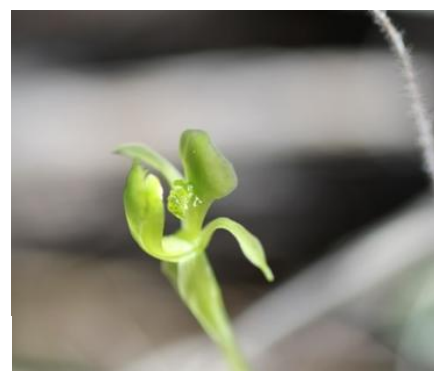
On the Sunday, Russell took us to four sites to look at orchids that were in flower (and one rare one that was only in bud: *Caladenia venusta*, White Caladenia). Russell had warned us that the late, poor season meant that we would not see the full range of orchids that should have been flowering at this time of the year, however we did manage to see eight species, one of which was a hybrid

charmingly named Blue Gremlin, *Cyanicula cerulea* x *Caladenia deformis*. This is a hybrid of two blue orchids, Blue Caladenia *Cyanicula cerulea* and Blue-beard Orchid *Caladenia deformis*. *Cyanicula cerulea* can be identified by the pale rolled-in tip of its labellum and the double row of yellow calli on its labellum. By contrast, the labellum of *Caladenia deformis* has long, thick, blue calli (warts on the lip) that look like a beard, hence its common name. Blue Gremlins superficially resemble *Caladenia deformis*, however one of their distinguishing features is that the calli are thinner and mostly white-tipped.

We were all very grateful to Russell for his efforts in locating the orchid species that were flowering at the time. Apart from the Blue Gremlins, we were all very pleased to see the Wasp Orchids, *Chiloglottis trapeziformis*, that were flowering near Melville Caves. This was a first for many of us, and it was intriguing to see that the colony was plain green, rather than the more typical purple and green.

Cathrine Harboe-Ree

Wasp Orchid, *Chiloglottis trapeziformis*



Left: *Cyanicula cerulea*

Photos: Cathrine Harboe-Ree



The Blue Gremlin
The hybrid of the two neighbours



Right: *Caladenia deformis*

Flora and Fauna Lists, Sunday September 14th, Multiple Locations.

1 - Kooyoora State Park

Plants

Blakely's Red Gum, *Eucalyptus blakelyi*
Broad-leaf Early Nancy, *Wurmbea latifolia* subsp. *vanessae*
Bulbine Lily, *Bulbine bulbosa*
Common Early Nancy, *Wurmbea dioica*
Green Rock-Fern, *Cheilanthes austrotenuifolia*
Grey Box, *Eucalyptus microcarpa*
Scented Sundew, *Drosera aberrans*

Small Wrinklewort, *Siloxerus multiflorus*
Sticky Everlasting, *Xerochrysum viscosum*
Tall Sundew, *Drosera* sp.
Tiny Star, *Pauridia glabella* var. *glabella*
Varnish Wattle, *Acacia verniciflua*
Wallowa Acacia, *euthycarpa* subsp. *euthycarpa*
White Cypress-Pine, *Callitris glaucophylla*
Yellow Pennywort, *Hydrocotyle foveolata*

Orchids

Dusky Fingers, *Caladenia fuscata*
Blue-beard Orchid, *Caladenia deformis*
Golden Moths, *Diuris chryseopsis*
Swan Greenhood, *Pterostylis cycnocephala*
Dwarf Greenhood, *Pterostylis nana*

Other

Scarlet Percher Dragonfly, *Diplacodes haematodes*

2 - Orchid Dam

Plants

Buloke, *Allocasuarina luehmannii*
Climbing Sundew, *Drosera macrantha* subsp. *planchonii*
Common Early Nancy, *Wurmbea dioica*
Common Fringe-myrtle, *Calytrix tetragona*
Cranberry Heath, *Styphelia humifusa*
Daphne Heath, *Brachyloma daphnoides*
Drooping Cassinia, *Cassinia sifton*
Flame Heath, *Stenanthera conostephioides*
Golden Wattle, *Acacia pycnantha*
Grey Box, *Eucalyptus microcarpa*
Guinea Flower, *Hibbertia* sp.
Magenta Stork's-bill, *Pelargonium rodneyanum*
Murnong, *Microseris walteri*
Scented Sundew, *Drosera aberrans*
Slender Buttercup, *Ranunculus robertsonii*

Sticky Everlasting, *Xerochrysum viscosum*
Tiny Star, *Pauridia glabella* var. *glabella*
Wallowa, *Acacia euthycarpa* subsp. *euthycarpa*

Orchids

Blue Caladenia, *Cyanicula cerulea*
Blue Gremlin, *Caladenia deformis* x *Cyanicula cerulea* (hybrid)
Blue-beard Orchid, *Caladenia deformis*
Dusky Fingers, *Caladenia fuscata*
Dwarf Greenhood, *Pterostylis nana*

3 - Melville Caves road

Plants

Tiny Star, *Pauridia glabella* var. *glabella*
Tall Rice-flower, *Pimelea linifolia* subsp. *linifolia*
Varnish Wattle, *Acacia verniciflua*
Orchids
Golden Moth, *Diuris chryseopsis*

Thelymitra sp. (leaf)
White Caladenia, *Caladenia venusta* (in bud)

4 - Melville Caves

Plants

Green Rock-fern, *Cheilanthes austrotenuifolia*
Twining Fringe-lily, *Thysanotus patersonii*
Scarlet Sundew, *Drosera glanduligera*
Groundsel, *Senecio* sp. (purple under leaf)

Orchids

Dwarf Greenhood, *Pterostylis nana*
Wasp Orchid, *Chiloglottis trapeziformis*

Other

Common Grass-blue Butterfly, *Zizina otis* ssp. *labradus*

List compiled by Geraldine Harris.

Candy Spider Orchid

By Russell Stanley

I was fortunate recently to see and photograph the white spider orchid (affectionately known by some as the Tarrengower Spider) growing in the hills around Maldon. Recognition was almost instant having seen and photographed this species many times at Lake Fyans near Pomonal and Rocklands west of the Grampians. The smallish size, the thick brown glandular ends to the sepals and petals, the pale pink calli of the labellum and the slight pink blush of the sepals, petals and labellum all indicated its identity *Caladenia versicolor* – the Candy Spider Orchid.

The species is both rare and endangered with declining wild populations at the sites mentioned above. Around 2013 a single, brightly coloured plant was also discovered at Kooyoora near Kingower & Rheola.

The Candy Spider Orchid is highly variable in colour (as indicated by its name *versicolor*) ranging from white to cream, bright pink or even yellowish. Posture can also vary significantly from stiff horizontally held petals and sepals to a limp, drooping appearance. The best identifying features are its small size and dark brown thickly glandular sepal and petal tails.



Candy Spider Orchid
(*Caladenia versicolor*)

Photos
by Russell Stanley.



Wednesday Wildflower Wander –10th September

Castlemaine Botanical Gardens Flora and Fauna Reserve. Leader: Peter Turner

With the very dry autumn, Kalimna Park flowering was still low, so we relocated our first Wildflower Wander for the season to the Castlemaine Botanical Gardens, up the hill to the Flora and Fauna Reserve. Here we were treated to some beautiful early flowering orchids, wattles and other wildflowers, with the promise of more orchids to come with the leaves of several species of Sun Orchids appearing. A very pleasant wander!



Diuris curvifolia / pardina.

Photo: Peter Turner

Scientific Name	Common Name
<i>Acacia acinacea</i>	Gold-dust Wattle
<i>Acacia aspera</i>	Rough Wattle
<i>Acacia genistifolia</i>	Spreading Wattle
<i>Acacia pycnantha</i>	Golden Wattle
<i>Caladenia fuscata</i>	Pink Fingers
<i>Daviesia ulicifolia</i> subsp. <i>ruscifolia</i>	Gorse Bitter-pea
<i>Diuris curvifolia</i> *	Leopard Orchid
<i>Diuris chryseopsis</i>	Golden Moths
<i>Hakea decurrens</i>	Bushy Needlewood
<i>Hovea heterophylla</i>	Common Hovea
<i>Philotheca verrucosa</i>	Fairy Wax-flower
<i>Wurmbea dioica</i>	Early Nancy

* Previously known as *Diuris pardina* in this area

Wednesday Wildflower Wander –24th September

The Monk. Leader: Cathrine Harboe-Ree

Scientific name	Common name
Orchids	
<i>Caladenia clavescens</i> (bud)	Castlemaine Spider-orchid
<i>Caladenia fuscata</i>	Dusky Fingers
<i>Caladenia (Glossodia) major</i>	Wax-lip Caladenia
<i>Diuris pardina</i>	Leopard Orchid
<i>Pterostylis nana</i>	Dwarf Greenhood
<i>Thelymitra pauciflora?</i> (bud)	Slender Sun-orchid
Other flora	
<i>Acacia acinacea</i>	Gold-dust Wattle,
<i>Arthropodium strictum</i> (bud)	Chocolate Lily
<i>Acacia pycnantha</i>	Golden Wattle
<i>Craspedia variabilis</i>	Billy Buttons
<i>Daviesia ulicifolia</i>	Gorse Bitter Pea
<i>Drosera auriculata</i>	Tall Sundew
<i>Grevillea alpina</i>	Downy or Mountain Grevillea
<i>Microseris walteri</i>	Yam Daisy
<i>Millotia muelleri</i>	Common Bow-flower
<i>Ozothamnus obcordatus</i> (bud)	Grey Everlasting
<i>Ranunculus pachycarpus</i>	Buttercup
<i>Rhytidosporum procumbens</i>	White Marianth
<i>Stackhousia monogyna</i> (bud)	Creamy Candles
<i>Tetralathea ciliata</i> (bud)	Pink Bells
<i>Wurmbea dioica</i>	Early Nancy
<i>Xerochrysum viscosum</i> (bud)	Sticky Everlasting

Seven hardy souls explored The Monk on a grey afternoon. This is a late season with fewer than usual species flowering, but our haul of 22 species flowering or in bud was very satisfying. By far the most numerous were the *Caladenia fuscata* (Dusky Fingers) and *Wurmbea dioica* (Early Nancy), which were everywhere. The smallest flower was *Millotia muelleri* (Common Bow-flower), which is a tiny species in the daisy family, just 2 or 3 centimetres high - that's the whole plant; the flower itself is just a few millimetres.

The star of the day - or the two stars of the day - were two *Caladenia clavescens* (Castlemaine Spider-orchids) in their prime (see photo next page). This was the last species of the day and a "wow" way to finish, as one member of our group said.



Wurmbea dioica

Photo: Jenny Rolland



Caladenia clavescens

Photo: Cathrine Harboe-Ree



Ranunculus pachycarpus

Photo: Jenny Rolland



Caladenia fuscata

Photo: Jenny Rolland



Craspedia variabilis

Photo: Jenny Rolland

Challenge Bird Count 2025

The Castlemaine Field Naturalists Club is continuing its involvement in the annual Challenge Bird Count in late 2025, not to be confused with the 'Aussie Bird Count Oct 20th – 26th', and this is an invitation to join the search – irrespective of whether you consider yourself as an expert, beginner or somewhere in between. All skill levels are welcomed and encouraged to join this fun event.

I hear you ask, what's involved?

We are looking for teams of at least 2 people, and ideally 3 or more, to spend part of a day looking for a range of birds within any habitats occurring in a 25km radius of central Castlemaine. I'll then compile the sightings for all the Castlemaine teams, and lodge it with the organisers from BirdLife Australia. A detailed description of the survey instructions and 'rules' is provided on the new dedicated page on the CFNC website (<https://castlemainefieldnaturalists.org.au/challenge-bird-count-2023/>). This page also has a summary of recent past results, with more details from early years to be added in the coming months.

While the traditional timing is to undertake this on either the Saturday or Sunday of the first weekend in December (6-7 Dec 2025), it is fine to schedule your searches for any one day – or part thereof - within a week on either side of this weekend.

If you have a team already, or would be interested in joining with others to form a team, I'd love to hear from you (c_timewell@hotmail.com). I can provide more details, and also help coordinate locations for the bird searches for each team to avoid double-ups and also get a good coverage.

As well as being a good excuse to go birdwatching, and possibly see some new or interesting species, it also provides a quick snapshot of the health of the bird community in the local area – and contribute to knowledge at a state and national level.

In 2024, there were 19 teams participating – mostly from Victoria, but also Queensland, NSW, Christmas Island and the Cocos Islands – which collectively detected 61,592 birds. Almost half of the birds (26,052 individuals) were seen by the East Gippsland group, whose area covers a number of important waterbird habitats. The Cocos Island searches detected species that I've never heard of before, such as Eurasian Wigeon, Tibetan Sand-plover and Pallas's Grasshopper Warbler to name a few.

The Castlemaine teams saw 1,572 individual birds from 110 species in 2024, which is almost the exact same result as in 2023 (1,575 individual birds from 108 species). The organisers calculated that the 110 species we detected represented 49.11% of the total bird species that we could reasonably expect to find in the Castlemaine area. The best performing team by this metric was in the Cocos Islands, where they detected 53 of a possible 70 species (75.51%).

The full details of the findings in the Castlemaine region from 2024 was provided back in the March newsletter.

Chris Timewell (c_timewell@hotmail.com)



Your chance to make a difference

It's been a hard year for Country since the last Great Southern Bioblitz in October 2024. With relentless months of drought conditions and no Autumn break, the isolated days of drenching rain in mid-June were too late for many species. Walking familiar paths showed severely depleted vegetation, with rushes and dianellas, ground covers and herbaceous plants chewed to the ground by herbivores. The absence particularly of insect numbers has been truly disturbing. Thankfully September has finally brought some rains, with growth and some return of animals and insects. Fingers crossed for the Bioblitz as well!

The Bioblitz is not just the dalliance of genteel humans enjoying nature and exercise. It is a coordinated effort to gather critical information needed by scientists to better understand the complex intertwined ecosystems of

plants, creatures and other life forms, and the roles each of them play in sustaining the habitats in which we all live.

You too have a chance to play your part during the four days and nights of the Bioblitz. Join us to help showcase all the amazing forms of wildlife living in our own Castlemaine region and help build the scientific databases that increase knowledge and understanding of our bushlands. These annual Bioblitz surveys collect vast amounts of data on species and their distribution that would otherwise be unavailable.

To join the fun take photographs or make sound recordings of flora, fauna, fungi etc from Friday October 24th until the end of Monday October 27th 2025. You then have until November 10th to upload them to iNaturalist from your phone app or computer. iNaturalist is a global

databank for observations of biodiversity made by scientists, naturalists and citizen scientists. Skilled naturalists, scientists and other citizen scientists will then help identify your observations.

Don't forget your home gardens can be important habitat. Have some fun with "Moths at Home". At dusk turn on an outside light where it shines on a blank wall. Periodically through the evening go outside and inspect the wall and record whatever is present. Keep going until bedtime. Different moths will come out at different times. Take close-up photos if possible – use a bright torch to provide additional lighting or use a telephoto and flash on the camera. The telephoto lets you stand further back so the subject is not obscured by the shadow from the lens.

Mez Woodward

Visit the Club website for tips on using iNaturalist and information on previous Bioblitzes.

<https://castlemaine fieldnaturalists.org.au/great-southern-bioblitz/>

Two observations from BioBlitz 2024 below.



Left: *Philobota arabella*

Photo: *Jill Williams*

Right: *Gastrophora henricaria*
Fallen Bark Looper

Photo: *Patrick Kavanagh*



From the Committee, October 2025

Kerrie Jennings will be representing CFNC at a workshop being held by Mount Alexander Shire Council as part of the development of a Rural Land Use Strategy for managing and developing rural land. This project will identify potential areas for rural activities, conservation and living as well as provide guidelines for managing and developing these lands.

Similarly, Euan Moore will be representing us on the Reference Group for North Central CMA's Protecting Eltham Copper Butterfly Project. The project aims to increase the quality of populated habitat and extent of potential habitat for this nationally endangered species. The project will increase knowledge of current populations through baseline and indicator fauna surveys at each of the known populations in the management area, undertake flora surveys to increase knowledge of potential habitat extent, and address habitat fragmentation through targeted revegetation of Sweet Bursaria (*Bursaria spinosa*).

Speaking of butterflies, our new brochure, which features all known butterflies from this region, is on track for completion by the end of the year. The project has been led by Lou Citroën, and the draft brochure looks fantastic!

We can also report that the Victorian Government has finally introduced legislation to Parliament to create new National Parks in Victoria, creating over 65,000 hectares of national park in Victoria's Central West. The new legislation is expected to deliver the Mount Buangor, Pyrenees and Wombat-Lerderderg National Parks, the Cobaw and Hepburn Conservation Parks and expand the Bendigo Regional Park. We have been lobbying for this for some time, so it is a relief to see it happening.

Coming Events for October

Monthly General Meeting, Friday 10th October, 7.30pm

Uniting Church Fellowship Room, Lyttleton St.

Speaker: Cathrine Harboe-Ree "A field naturalist in Siberia"

Drawing on a biography she is translating, club member Cathrine Harboe-Ree will talk about the extraordinary efforts the Norwegian field naturalist and polar explorer Johan Koren made to study fauna in north-eastern Siberia in the years 1909-1919. Koren survived shipwrecks and other maritime disasters, winters as cold as minus 65 Celsius, frostbite and isolation. He collected for museums, research institutions and private collectors. The main institutional recipients were Harvard University and the Smithsonian. Koren had a special interest in birds and is credited with finding the previously unknown breeding grounds of a number of migratory birds. He also discovered several new mammal species, some of which were named after him.

Observations: Members and visitors are invited to share their recent interesting observations at the meeting. Please email any photos as uncropped JPEG file(s) and supporting notes to Jill Williams (jilliwill33@gmail.com) by noon on the day of the meeting.

Excursion, Saturday 11th October, 1.30pm

Leader: Cathrine Harboe-Ree. "Creating a wetland environment", Chewton.

The Mount Alexander region is generally quite dry, but Chewton residents Mikael and Helle Hirsch have transformed a dry, weedy paddock of about two acres into a biodiverse wetland in a remarkably short period of time. Drawing on the expertise of local ecologist Karl Just and others, and making use of a natural spring supplemented with bore water, their landscaper has created four deep, connected ponds, made small hills, brought in rocks, created paths and a bridge over Wattle Creek. Since then, the Hirsch's have done extensive planting, released native fish and rabbit-proofed the area, amongst other things. The wetland is already attracting frogs, butterflies and birds, and there are plans to keep developing the site to support greater biodiversity.

Meet: at the northern end of the Car Park north of the Railway Goods Shed, Kennedy St, Castlemaine for a prompt **1.30pm** departure (car-pooling as much as possible) or go straight to the property at 562 Pyrenees Highway, follow the driveway past the wetland right up to the house where there is plenty of parking, for a **1.45pm** start.

Bring: Water, snacks, **clean** sturdy shoes, chairs and afternoon tea.

Wednesday Wildflower Wanders

We continue with our fortnightly Wednesday Wildflower Wanders this month with two more special sites to explore.

8 October - Sinclairs Lane/Muckleford with Judy and Philip Hopley

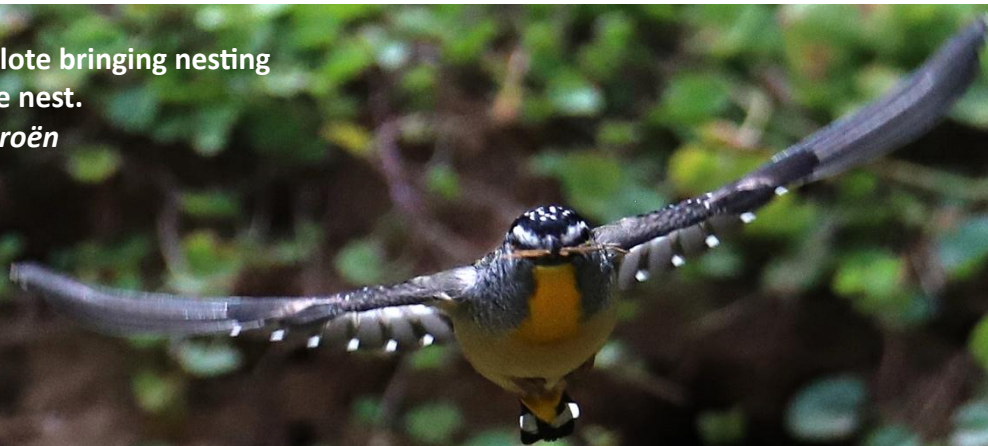
22 October - Walmer State Forest with Geraldine Harris

Meet in the Car Park north of the Railway Goods Shed in Kennedy St, to leave at **4pm**, returning by about 5.30 pm.

Bring: **Clean**, sturdy shoes and a walking pole if you usually use one.

Spotted Pardalote bringing nesting material to the nest.

Photo: Lou Citroën



Program

Monthly meetings are held in the Uniting Church Hall (or in November the Chapel), Lyttleton St. Castlemaine commencing at 7.30pm.

Members and visitors are invited to share their interesting observations at these meetings. Please email any photos to illustrate your report as uncropped JPEG file(s) to Jill Williams (jilliwill33@gmail.com) by noon on the day of the meeting.

Excursions are held on the Saturday following the monthly meeting and leave from the northern end of the car park north of the Railway Goods Shed, Kennedy St. at 1.30pm unless stated otherwise.

See “Coming Events” page for more details about October events.

Wed 8th October 4.00pm

Wednesday Wildflower Wander

Sinclairs Lane/Muckleford with Judy and Philip Hopley

Fri 10th October 7.30pm

Meeting (UCH): “A field naturalist in Siberia”

Speaker: Cathrine Harboe-Ree

Sat 11th October 1.30pm

Excursion: “Creating a wetland environment”, Chewton

Leader: Cathrine Harboe-Ree

Wed 22nd October 4.00pm

Wednesday Wildflower Wander

Walmer State Forest with Geraldine Harris

Fri 24th October to Mon 27th October

Great Southern Bioblitz (see details on page 10)

Fri 14th November 7.30pm

Meeting (UC Chapel): “eBird Data Explorations”

Speaker: Richard Alcorn (Geelong Field Naturalists Club)

Combined meeting with Birdlife Castlemaine District

Sat 15th November 9.30am

Excursion: “Bird and wildflower walk in Maldon Historic Reserve”

Leader: Euan Moore

Combined walk with Birdlife Castlemaine District

Visitors are welcome at club activities

Castlemaine Field Naturalists Club Inc. #A0003010B

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Membership – fees due 1st April

Includes the monthly newsletter, Castlemaine Naturalist.

(Membership forms on CFNC website)

Single \$35, Family \$50

Pensioner or student:

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Nov edition deadline: **31st October**

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Secretary: Cathrine Harboe-Ree

Treasurer: Geoff Harris

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Kerrie Jennings Jill Williams

Jenny Rolland Noel Young

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The Nodding Greenhood Pterostylis nutans is the club emblem. Design by Rita Mills

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