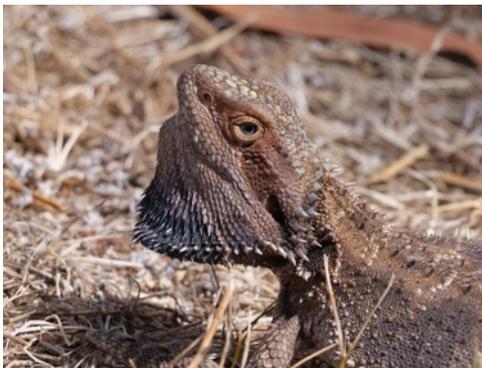


Castlemaine Naturalist

March 2023

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Bearded Dragon in the 'burbs (see observations)
photo by Noel Young

Monitoring Fryerstown Grevillea, a threatened species in our region

February meeting and excursion report.

The Grevillea genus is part of the Proteaceae family of plants which includes local representatives of the genera Grevillea, Banksia, Hakea and Persoonia. We have at least six species of Grevillea in our region of which four (*G. repens*, *G. dryophylla*, *G. micrantha* and *G. obtecta*) are listed as endangered or critically endangered.

Our speaker for the February meeting was Georgie Custance from the [Threatened Species Conservancy \(TSC\)](#), a not-for-profit conservation group that is working towards improving the status of some of our threatened species. Georgie gave us a brief summary of her background which included working on conservation projects at Christmas Island, Mallee Cliffs (NSW), Newhaven (NT) and Artesian Range (Kimberly) before joining the TSC.

TSC work includes on-ground actions, threatened species knowledge collaboration, mentoring and inspiring budding naturalists and fostering community connections in conservation.

TSC projects focus on some of the threatened species that are “left behind” or neglected. These are often the uncharismatic species rather than the pretty, cute or cuddly. Georgie’s TSC projects include running a bird identification and monitoring course with an emphasis on Otway threatened birds, running butterfly surveys of the Otway coast and ranges, searching for and documenting land snails, surveying threatened plants of Gariwerd (the “forgotten flora”), monitoring threatened butterflies such as the Small Ant-blue and accurately determining the extent of Fryerstown Grevillea, *Grevillea obtecta*.

Fryerstown Grevillea has a very limited distribution. It is known to occur at Porcupine Ridge, Fryers Ridge and Drummond North. There are a few records outside these locations however it is possible that they are either misidentifications or the location is incorrect. The entire global range of this species is within our

region. Even within this restricted area, distribution is patchy. It may be abundant over a small area but not found again for some distance.

Fryerstown Grevillea is one of the Holly Grevilleas, a sub-group of the genus where the leaves of some members resemble English Holly, *Ilex aquifolium*. There is a lot of variation in the leaf form ranging from deeply lobed leaves to almost entire leaves with small spines around the edge of the leaf. The plant is prostrate, seldom more than 25cm high. Larger plants can be up to 1.5m diameter however most are smaller.

Susan Hoebee's laboratory at LaTrobe University has examined the genetics and reproduction of Fryerstown Grevillea. Although there is significant variation in leaf form they found that all variants are genetically very similar. Flowering occurs in mid to late spring. This species is an obligate out-crosser meaning that individual plants can't self-fertilize, so require a vector (insect/bird/mammal) to transfer the pollen from one plant to another. The aromatic flowers are in typical, one-sided, spikes that are produced at ground level. *Obtecta* means hidden, referring to the flowers that are hidden beneath the leaves. Camera studies have found that there are multiple pollinators although it appears that small mammals such as antechinus, phascogales and sugar gliders may be the most important pollinators. The seeds are produced in small pods, typical of Grevilleas, that are at ground level and hidden beneath the foliage which means that seeds may not spread far from the parent plant. These reproductive factors have implications for the survival of the species as localised populations may be genetically isolated and recovery following fire or disturbance may be slow.

At present there is not much known about the ecology of this species. All the forests where it is found have been subject to extensive disturbance over the last 160 years. The impacts of disturbance are not known although many of the known sites are close to tracks and roads with the number of individuals decreasing with distance from the track. The proximity to tracks means that track and forest management works may wipe out entire sub-populations. The impact of fire is largely unknown. It is also likely that it is susceptible to *Phytophthora* so try to avoid areas where Grevilleas occur during wet and muddy conditions, keep your boots clean of soil and ideally spray the soles of your boots with a bleach or Phytoclean solution to kill any residual pathogens.

On Saturday morning we had an excursion with about 20 people to Dearden Tk where there is a large site for this species. We discussed the aims of Georgie's project which are to establish long term monitoring of known populations, to map new populations, to monitor plant health (are the plants healthy, is there recruitment of seedlings), to inform land managers (DEECA, Parks Victoria) and germplasm conservation (seed collection by licenced seed-collectors).

Georgie showed us how to use the ProofSafe phone app to record details about the species and site. This included counting the number of plants present, taking photos of the plants and site and noting characteristics such as leaf variation. Once you have worked through the process a couple of times it should only take about 5 minutes to record a site. Instructions on how to download the ProofSafe app and on how to use it are available from our website.

After our group had finished exploring this Fryerstown Grevillea site and learning to

use the app. we fanned out to see what else we could find in the area. With the current dry conditions there was not a lot in flower however the group came up with an impressive list of the plants found at this site.

I would like to express our thanks to Georgie Custance who travelled up from Apollo Bay to present this talk and guide us through the recording methodology for the Fryerstown Grevillea. It was great to finally have this talk and excursion which was originally scheduled for October last year but postponed due to the floods.

Your committee is looking at the possibility of scheduling some extra activities to explore the extent of the Fryerstown Grevillea and to check some of those outlying locations where it has been reported. Watch for these extra excursions being advertised in this newsletter and on our website.

Euan Moore



Above Left: *G. obtecta* Fryers ridge form showing the smaller more rounded leaves with shorter lobes. [Photo Euan Moore]

Right: *G. obtecta* from Porcupine Ridge showing the larger deeply lobed leaves. Both photos show the low creeping habit of these plants. [Photo Euan Moore]



Above left: *G. obtecta* flower showing how the spikes are held flat on the ground beneath the leaves – see comments about pollination. [Photo Euan Moore]

Right: Georgie addresses the excursion group. [Photo Jenny Rolland]

CFNC excursion plant list: 11 February 2023

Supplied by Cathrine Harboe-Ree

1	<i>Acacia acinacea</i>	Gold-dust Wattle	
2	<i>Acacia dealbata</i>	Silver Wattle	
3	<i>Acacia lanigera</i>	Woolly Wattle	
4	<i>Acacia mitchellii</i>	Mitchell's Wattle	F
5	<i>Acacia paradoxa</i>	Hedge Wattle	
6	<i>Acrotriche serrulata</i>	Honeypots	
7	<i>Arthropodium strictum</i>	Chocolate Lily	
8	<i>Brachyloma daphnoides</i>	Daphne Heath	
9	<i>Brunonia australis</i>	Blue Pincushion	
10	<i>Burchardia umbellata</i>	Milkmaids	
11	<i>Cassinia sifton</i>	Coffee Bush	
12	<i>Correa reflexa</i>	Common Correa	
13	<i>Dianella revoluta</i>	Flax-lily	
14	<i>Dillwynia sp</i>		
15	<i>Drosera auriculata</i>	Tall Sundew (probable)	
16	<i>Eucalyptus goniocalyx</i>	Long-leaved Box	
17	<i>Eucalyptus macrorhyncha</i>	Red Stringybark	
18	<i>Eucalyptus microcarpa</i>	Grey Box	
19	<i>Eucalyptus polyanthemus</i>	Red Box	
20	<i>Exocarpos cupressiformis</i>	Cherry Ballart	
21	<i>Goodenia blackiana</i>	Black's Goodenia	
22	<i>Goodenia paradoxa</i>	Spur Goodenia	
23	<i>Gonocarpus tetragynus</i>	Common Raspwort	
24	<i>Grevillea alpina</i>	Downy Grevillea	
25	<i>Grevillea obtecta</i>	Fryerstown Grevillea	
26	<i>Hardenbergia violacea</i>	Purple Coral-pea	
27	<i>Hovea heterophylla</i>	Common Hovea	
28	<i>Leptorhynchus tenuifolius</i>	Wiry buttons	F
29	<i>Lomandra filiformis</i>	Wattle Mat-rush	
30	<i>Lomandra longifolia subsp exilis</i>	Spiny-headed Mat-rush	
31	<i>Microseris walteri</i>	Yam Daisy	
32	<i>Moss sp</i>		
33	<i>Pelargonium rodneyanum</i>	Magenta Stork's-bill	F
34	<i>Persoonia rigida</i>	Hairy Geebung	
35	<i>Pimelea humilis</i>	Dwarf Rice-flower	
36	<i>Pimelea linifolia</i>	Slender Rice-flower	
37	<i>Poa sieberiana</i>	Grey Tussock-grass	
38	<i>Stylidium graminifolium</i>	Grass Trigger-plant	
39	<i>Styphelia humifusa</i>	Cranberry Heath	
41	<i>Wahlenbergia gracilentia</i>	Annual Bluebell	F
42	<i>Wahlenbergia stricta</i>	Tall Bluebell	F
43	<i>Xerochrysum viscosum</i>	Sticky Everlasting	

Readers' queries to "Wildlife" Magazine in March 1946

George Broadway

INSECTS

Heathmont: Could be one of the Victorian Ghost Moths, but it was a bit battered.

Brunswick: The quick-moving hairy grubs about 1.5 cm long, covered with stiff brown hair were larvae of one of the scavenger beetles of the family *Dermestidae*. They are generally found in old dried-up carcasses in the bush, or in untanned skins. I presume you have untanned skin rugs on your floor or rabbit skins hanging somewhere nearby. Or there may be the carcass of a long dead cat or possum in the ceiling or under the floor.

Hastings: Pixie-cap caterpillar of the gum-tree, *Crypsiphona occultaria*. The yellow line down the side of the green body and the little pointed pixie cap pointed directly forward when the creature is alarmed, provide good camouflage, making it look exactly like one of the leaves on which it feeds. The adult is one of the Looper Moths, greyish with two or three darker line across the wings.

Rupanyup: Cup Moth caterpillar or "Stinging Joey". Often sent in by readers, see 2.18. Also from Alphington.

Sorrento: Botany Bay Diamond Beetle. See 3.17. widely distributed in E Australia. Sometimes called "Elephant Beetles" because of the trunk-like front of the head which bears the jaws at the tip.

Korumburra: Convolvulus Hawk Moth caterpillars, see 4.17. Had pupated in the post, the chrysalis having the characteristic "Jug-handle" at the front to accommodate the unusually long tongue.

Dandenong: Inappropriately named Mountain Grasshopper, *Acripezza reticulata*. This, the female has no flight wings but when alarmed raises the crumpled wing covers, revealing flashes of red and blue. See 8.19

Fairfield and Fitzroy: The common Firewood Beetle, *Phorocantha recurve*. Frequently sent in. See 11.16

Merbein: Fiddler Beetle, brightly coloured, with green or yellow markings on the back suggestive of a fiddle. See. 6.18

Richmond: The foliage of young wattles in the forest of Arden near Marysville has been killed by a plague of looper caterpillars which hang from a spiderlike thread. The devastated area looks firescorched and visitors are smothered by them along the Keppels Falls Track.

Carrum: The mist under the gum tree was caused by the dropping of excess sugar by the millions of scale insects feeding on the tree. They were the Eucalyptus Scale, *Eriococcus coriaceus*. At times they cause the death of young trees because they suck out so much sap.

Areega: (E. of Warracknabeal): Green Hunting Beetle. *Carabidae*

BIRDS

Malvern: Nest of Brown Thornbill, unusual with two entrances one at each side.

BOTANICAL

Castlemaine: Hedge Mustard, *Sisymbrium officinale*. Introduced weed from S.Africa.

Forest Tas.: Plant with prickly leaves and round fruit is the Apple of Sodom, *solanum sodomaeum*, a poisonous member of the nightshade family.

Observations

Noel Young

Eastern Bearded Dragon *Pogona barbata*



Saturday 18th of February, I came across a fine example of this fairly rare species for our region. Initially it flared the beard, flattened its body and opened its mouth to reveal a pale coloured gape, but by the time I got the camera ready, it seemed to calm down. Fortunately for me they tend to freeze and rely on their camouflage, which allowed me to take several shots from different angles before leaving it to go its own way. A rare and rewarding encounter!



Denis Hurley

Flower spider?
clutching prey



I watched 3 Orange Potter Wasps (*Delta bicinctum*) busy acquiring wet clay from a metre and a half deep trench provided by Coliban Water mains replacement workers outside 'Pumpkin Cottage' on Tuesday afternoon 7th of February. They were still busy on the 10th of February, along with some smaller Wasps. No picture as it was too deep and out of bounds to us *Homo sapiens*.

Merrifield st., 9th February 7pm; Two Blue banded Bees, one with pollen sacks working the Pale Vanilla Lily flowers very fast. A treat to see two together without one chasing the other away.



Merrifield st., 3rd February, cute black big-eyed window-winged fly sp. on the shed wall (left) - wingspan about 12 mm.

Helen Lawrence

Moth; I think a *Phrataria bijugata* (I'm hoping the "biju" relates to its jewelled flecks). In Guildford. On a diesel jerrycan.



An avian calamity at Bells Swamp reserve unfolded over February, when it was discovered that many water birds on the now flooded swampland were dead or dying. The most recent information on going to print is quoted below from the [Parks Victoria](#) website.

Bells Swamp avian botulism event confirmed

Wednesday 22 February, 2023

Avian botulism has been confirmed as the cause of a mass bird death event at [Bells Swamp Nature Reserve](#), south-west of Bendigo.

More than 700 birds have died during the event, which was first reported on 8 February.

Laboratory test results, in combination with the signs observed in affected birds, are consistent with Clostridium botulinum toxin, which attacks the brain and nervous system of infected animals, causing paralysis.

Parks Victoria has coordinated the response as land manager for Bells Swamp, leading a combined effort with the Department of Energy, Environment and Climate Action and other organisations.

Rangers and volunteers have removed dead birds for disposal and collected sick or injured birds for monitoring and care. These efforts will continue over the coming days.

The reserve will remain closed until further notice, to limit disturbance to the birds and protect the public.

Avian botulism is a serious illness of birds caused by a toxin produced by Clostridium botulinum bacteria, which survives as spores in soils and sediment in wetlands and lakes. Events like this one have been recorded in Victoria since 1938, and usually occur in the summer months.

Humans and pets are primarily at risk only if they eat infected fish, birds or maggots, and botulism toxin is not infectious.

More information on avian botulism is available on the [Agriculture Victoria website](#).

Further updates will be posted as Change of Conditions on the [Bells Swamp Nature Reserve](#) page on this website.

Quotes attributable to Parks Victoria District Manager Suzanne Hughes

“Since the start of this event we have suspected avian botulism as the cause and that’s now been confirmed. Sadly, hundreds of birds have died but at this stage the event appears to be limited to Bells Swamp.”

“We know the community will be concerned about the event, but avian botulism poses very little risk to humans or pets. We ask that people stay away from Bells Swamp until it is reopened to the public.”

“The efforts of volunteers, Parks Victoria rangers and other agency staff to respond to the event have been magnificent and are deeply appreciated.”

Later updated comments:

Parks Victoria is responding to a bird death event at Bells Swamp Nature Conservation Reserve. **Over 750 birds of various species have been found dead as at 2pm Friday 24 February.** Fatalities are decreasing, with only 6 deceased bird found in the last 3 days.

Birds of Sutton Grange February 2023

Nigel Harland

Superb Fairy-wren	White-browed Scrubwren	Australian Magpie
Australian Raven	Laughing Kookaburra	Yellow-tufted Honeyeater
Sulphur-crested Cockatoo	Long-billed Corella	Crimson Rosella
New Holland Honeyeater	Welcome Swallow	Red Wattlebird
Galah	Striated Pardalote	Black-faced Cuckoo-shrike
Southern Boobook	Red-rumped Parrot	

Still good numbers of Red-rumped parrots. Cuckoos have headed back north.

SEANA Camps 2023

The South East Australian Naturalists' Association (SEANA) organises two camps each year where Field Naturalist groups from around SE Australia gather to explore a new region and meet fellow naturalists. The host club organises a range of activities lead by their local experts. Information about these camps' activities, registration forms and accommodation options are posted on our website's "Activities" page. Further information can be obtained from the host club's contact as below.

SEANA Autumn Camp - Port Campbell, April 28-30. Hosted by Timboon Field Naturalist's Club

The TFNC invites you to join them for a variety of activities along their wild part of the southern coast including – beachcombing, the wetland plants of the clifftop ponds, coastal and estuary birds, drawing workshop and clifftop walks. Contact Sally Loveridge sallyloveridge@gmail.com for further information.

SEANA Spring Camp – Yarram, October 20-23. Hosted by the Sale & District FNC and Latrobe Valley FNC who look forward to giving you an appreciation of the highly diverse region around Yarram, which includes the Tarra Bulga National Park, a number of state forests with rich flora, Nooramunga Marine and Coastal Park, Corner Inlet and the northern end of Wilsons Promontory National Park. Early accommodation booking is recommended. Contact Phil Rayment philrayment@dcsi.net.au for further information.

Roadside Cleanup report - Geoff Harris.

Our first Roadside Cleanup for 2023 was held on Monday 13 February. With a good crew and a light rubbish load we were finished by 10.30. We collected about 300 litres of rubbish. I almost feel disappointed when we only get a small load of rubbish and have to tell myself that that is what we want - the less litter the better.



The photo shows the contents of just one of the 10 bags of rubbish collected (even a pint milk bottle which must have been there for many years - it's hard to believe we have been missing it!). On a beautiful day Sticky Everlastings, Magenta Stork's-bills, Lemon Beauty Heads, Magpies, Noisy Miners and Sulphur-crested Cockatoos were sighted. Thanks to Alison, Nigel, Jan, Geraldine, Sue, Jenny & Euan.

COMING EVENTS

Excursion: Saturday March 11th, 1.30pm,
Tullaroop Reservoir
Leaders: Rosemary and Peter Turner



Photo by Noel Young

Meet: at the Octopus (Duke St, opposite the Castle Motel) at 1.30pm sharp or at the Tullaroop Reservoir picnic ground at the dam wall at 2pm.

Watch out for raptors as you drive across the Moolort Plains to the reservoir!

After gathering at the picnic ground, we will take a short drive to where we will park and then walk along the shore of the lake and in nearby bushland. We will have the chance to view a range of water and bush birds as well as some interesting plants and the remains of the early Rodborough Vale pastoral settlement. Afterwards we will drive back to the picnic ground for afternoon tea. There is a toilet block at the picnic ground.

Bring binoculars, sunhat, block-out, water and snacks, chairs and wear stout walking shoes.

The Field Trip will be cancelled in extreme weather conditions or if there is a high fire risk.

COMING EVENTS

**AGM and Monthly General Meeting: Friday 10th March, 7.30 pm,
Uniting Church Fellowship Room, Lyttleton St**

Annual General Meeting:

The 2023 AGM will be held before the usual monthly meeting observations and talk. The AGM agenda will include the Annual Report and the Treasurer's Report for 2022, and the election of office bearers and committee members for 2023. All positions on the committee will be open, so you are strongly encouraged to consider joining the committee. Members with a range of skills and interests are very welcome.

For more information, please contact the President or one of the committee members. Nomination forms are available from the Secretary and completed forms should reach the Secretary (castlemainefnc@hotmail.com) before the meeting.

Our guest Speaker will be John Lewis

“The Southern Australian Marine Flora – Diversity and Change”

CFNC member John Lewis, a marine biologist, will describe the fascinating marine flora of southern Australia. The public perception of our marine flora is often tainted by the odour of rotting seaweed cast up on to beaches with little awareness of the beauty and diversity of plants living below the waves. The southern Australian algal flora is one of the richest in the world. The macroflora, those organisms visible to the naked eye, is composed of three major groups of algae (reds / *Rhodophyta*, browns / *Ochrophyta*, greens / *Chlorophyta*), together with the seagrasses (vascular plants). In numerical terms, in southern Australia the red algae are most numerous with more than 300 genera and 800 species, followed by the brown algae (~90 genera, 200 species) then the greens (~40 genera, 120+ species).

In this talk, John will take us on a journey across the seashore and down through the upper depths of the ocean to give you a taste of this spectacular marine flora. He will also bring to you more detail on one family of red algae that he has a particular interest in (the *Halymeniaceae*), which will lead into a discussion on the spread of some seaweeds around the world and current threats to our algal diversity and marine ecosystems.

Our guest speaker will follow the usual '**observations**' session when members and visitors can share recent interesting sightings with an option to show a photo or two. If you have photos for the meeting, please email JPEG file(s) to Euan Moore (calamanthus5@bigpond.com) by noon on Friday 10th March.

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

Castlemaine Field Naturalists Club

PROGRAM

General meetings (second Friday of each month, except January) are held in the Uniting Church Hall, Lyttleton St. at 7.30pm.

If you have observations to report at the meeting and photo(s) to illustrate your report, please email them to Euan Moore (calamanthus5@bigpond.com) by noon on the day of the meeting.

Field Trips (Saturday following the general meeting) leave from the car park opposite the Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise.

Fri Mar 10 AGM and General Meeting 7.30pm. Speaker: John Lewis
"The Southern Australian Marine Flora – Diversity and Change"

Sat Mar 11 Excursion 1.30pm: Leaders: Rosemary and Peter Turner, Tullaroop Reservoir (see details page 10)

Fri Apr 14 Meeting 7.30pm. Speaker: Ben Kurek "Huntsman Spiders"

Sat Apr 15 Excursion 10.30am. Leader: Cathrine Harboe-Ree, Smith's Reef. Combined field trip with the Australian Native Orchid Society.

Fri May 12 Meeting 7.30pm. Speaker: Lisa Cox "Coliban Water's biodiversity program"

Sat May 13 Excursion 1.30pm. Leader: Kylie McLennan (Coliban Water), McCay Reservoir.

Visitors are welcome at club activities

Club website (Web master: Ron Wescott) - www.castlemaine-field-naturalists.org.au

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

*Deadline for the April edition is 31st March.

Subscriptions for 2023

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

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

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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