



NEWSLETTER: DECEMBER 2021

Woods Bushland Reserve – Exploring the Web of Life Zoom presentation by Rog Standen, September 2021.



Birds, fungi, mammals, reptiles and heaps of plants (examples of some flowering plants shown right) are the more obvious living things that can be seen at Woods Bushland Reserve (WBR), but it was the invertebrates that were the main subject of this talk at our September meeting.

Irregular monthly excursions with a UV light and an old sheet to see what was around after the sun went down were the basis for the talk, in addition to the many day trips made over the past decade.

What was there after dark? Plenty, was the answer. I mainly concentrate on the moths, but there are many beetles and other invertebrates to be seen as well. But what I was trying to point out was the interdependence that many of these things have with each other.



The more obvious examples of this complex web of life include the powerful owl predating the common ringtail possum (which feeds on plant leaves) and the delightful sugar glider (pictured left) that feeds on plant exudates and some insects.

The not so obvious include things like the Black Scavenger Flies (*Parapalaeosepsis plebeia*) that help with the decomposition of waste, by being coprophagus (dung eating), as well as eating decaying vegetation. Other flies like the large Rutilia, are known to be parasitoids of late instar larvae of scarab beetles and so help keep their numbers in check.

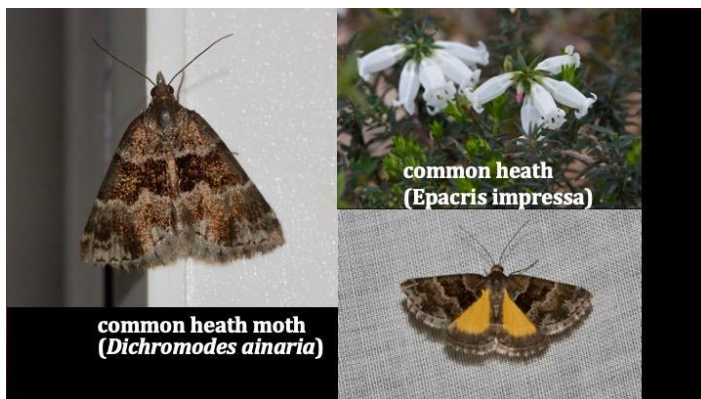
However, the main numbers appearing at night are the moths. Of the 286 species I have posted to iNaturalist so far, some 246 were moths, with beetles coming in a distant second with nine species. This reflects the focus on photographing and trying to identify moths, but also the wide variety of species present. The moths vary from the huge and super impressive Helena Gum Moth (*Opodiphthera helena*), whose larvae feed on eucalypt leaves, to the tiny Eriococcus Moth (*Stathmopoda melanochra*) that feeds on the gum-leaf scale (*Eriococcus coriaceus*).

Here is where it gets important to identify which species is which, a task that is very time-consuming and complicated, as not all species that are in the same genus behave the same. A more common cousin of the Eriococcus Moth, *S. auriferella* feeds on leaf litter, not scale. This highlights that to fully understand the interactions that occur within a system like WBR, the first thing is to understand what is there. Examples of the main moth families were shown and the main differences in appearance were pointed out. For example, the Bright Twisted Moth (shown below) is a geometrid moth, which generally spread their wings out flat against the tree, showing part of the hind wings.



bright twisted-moth (*Parepisparis lutosaria*)

The basic building unit of the habitats around us is the vegetation, and this has been mapped for the whole peninsula. This enables ‘plant ignorants’, like myself, to get a quick handle on what is there. Where the night surveying took place (at the end of Woodlands Lane), is in the Lowland Forest Ecological Vegetation Community, dominated by Messmate Stringybark and Narrow-leaf Peppermint, plus a plethora of understory plants.



common heath moth (*Dichromodes ainaria*)

common heath (*Epacris impressa*)

Other examples of these interactions between species include the Common Heath (*Epacris impressa*) being the food supply to both the Common Heath Moth (*Dichromodes ainaria*) and Native Cranberry Moth (*Poecilasthena pulchraria*).

Another obvious connection (by way of the common name) can be made between the Bracken Moth (*Idiodes apicata*) and the plentiful Bracken Fern (*Pteridium esculentum*).

A less obvious and difficult to uncover relationship comes between a butterfly Broad-margined Azure (*Ogyris olane*), and the mistletoe it feeds on.



Predator - prey bird examples

Some species of birds rely heavily on invertebrates to bolster the protein in their diet. Examples shown were an Eastern yellow Robin with a moth larva, a Crested Shrike with a cicada, Bell Miners with psyllid/lerps and a Grey Shrike-thrush with a dragonfly.

Moths can't eat pollen due to the reduced size of their feeding device, but may collect some on their bodies and transfer to other flowers and so help with pollination. Adults of some moths, like the Burnet moth, forester moths

and some noctuid moths do feed on nectar and assist in pollination.

There are many species of emerald moths and several are found in WBR. They feed on a wide variety of plants including wattles, tea tree, native cherry and red parrot-pea (*Dilwynia hispida*).

Some of the more successful predators are the dayflying insects; dragonflies and damselflies (anything they can catch on the wing, including others of their own type), lacewings (nymphs feed on aphids)

and the aquatic backswimmers. A very unusual moth larval stage which is also aquatic is that of the Pond Moth (*Hygraula nitens*). Other predators noted at the light sheet were spiders capturing moths and flies and large ants taking termites and beetles.

It is not hard to start drawing lines between the many elements of life in a reserve. Plants, to grazers, to predators and then the decomposers. In my mind, to understand enough to know how to best conserve places, the knowledge of what is there is the first step. Then comes the challenge of finding out what they all do and how they interact. This is a fascinating and interesting process to be involved in.

The presentation has been recorded and can be seen on You Tube:

<https://www.youtube.com/watch?v=XuBh-ZfLWCU>

Frankston Nature Conservation Reserve 1st November

Only four members managed to make it to our birding outing in November, the first since August. The end of travel restrictions, and the Cup Day holiday, proved to be a major distraction. Nevertheless those who attended had a most satisfactory day of bird observing, with a tally of 37 birds for the day.

We walked the Kookaburra Trail which circumnavigates the reservoir. There are fewer birds on the water with each passing month; on this day there were a couple of Cormorants, Little Pied and Little Black, along with the ubiquitous Silver Gulls.

Rufous Whistlers, Black-faced Cuckoo-shrikes and Fan-tailed Cuckoos were back for the summer. The Bell Miners were still very vocal, as were Pied Currawongs, which seem to have taken up residence in the Frankston area in recent years.

Seven species of honeyeater, including Red and Little Wattlebirds, were noted. White-naped Honeyeaters were also seen.

There were still a lot of Sun-orchids in flower, with the Salmon form (*Thelymitra rubra*) most prominent.—**Lee Denis**

Moths emerge from clump of leaves

A clump of leaves of a snow gum (*Eucalyptus pauciflora*) woven together into a communal shelter by moth larvae was collected from the railway line near Mornington and kept, to find out what was making the larval home.

Moths continued to emerge for over a week. The moths were an attractive oecophorid moth species *Ageletha hemiteles*.

It was interesting that they did not all emerge at once. I assume from this that whilst they all most likely came from the same egg batch and likely emerged together, the time to maturity changed. Whether this was because they varied in the time to get to pupate, or varied in pupation time I don't know (but suspect the former). —**Rog Standen**



Leaf/web mass (L)
pupal case within the silken chamber (R).



Photos by Rog Standen

Adams Creek Nature Conservation Reserve 13th November

We were pleased to be able to make a return visit to this reserve near Lang Lang, having visited in Autumn (reported in the June 2021 newsletter). This time the weather was slightly wetter than on the previous occasion, with several showers during the day, albeit not very heavy. We basically walked the boundary track, plus a section of the now-disused railway line.

This section seemed to be mostly a fairly open woodland with an overstorey of Manna Gum and Narrow-leaved Peppermint, with some Messmate and Swamp Gum. The understorey included Prickly Tea-tree, Daisy Bush, Banksias and Kunzea. Between the railway line and the creek, on the northern side of the Reserve, is a section containing a number of Rough Tree Ferns, as well as a number of ground ferns.

Flowers were much more abundant this time, mostly different to before—some plants, such as Wiry Bauera, were in flower on both trips, their flowering season extending from Spring to Autumn. Most of the colour was provided by the Bauera, Blue Dampiera, and a couple of Hibbertias.

Some of the plants we observed which do not occur or are not common west of Western Port Bay include the following. My main reference for Victorian plants is the Victorian Herbarium website <https://vicflora.rbg.vic.gov.au/>

Two species of Banksia are found, *B. marginata*, Silver Banksia, and *B. spinulosa*, Hairpin Banksia. This latter species is found only in Victoria, New South Wales and Queensland, while the variety *cunninghamii* is confined to Victoria, limited to Gippsland except for some isolated occurrences in the west. We were intrigued to find that the bushes of this species were host to a specialist fungus of the genus *Banksiamyces* (literally 'banksia fungus').

We noted a very attractive prostrate Guinea-flower, *Hibbertia procumbens*, which also does not occur west of

the Bay. This plant has soft foliage and very large yellow flowers. Prickly Guinea-flower, *H. acicularis*, which occurs on the Peninsula, was also found.

Another mainly Gippsland species was a Mitrewort, *Mitrasacme pilosa* var. *stuartii*, which is classified under the less common family Loganiaceae. This is also a prostrate plant, with white flowers on long hairy pedicels.

Besides the more common Large Duck Orchid, we also saw Small Duck Orchids, a species only found in eastern Victoria.

Another interesting plant, fairly widespread but not often observed, was Slender Yellow-eye *Xyris gracilis*.

Few fungi were observed; the most interesting apart from the *Banksiamyces* was a jelly fungus *Heterotextus* sp (there are a couple of species which can only be separated on microscopic examination)—yellow blobs about 4 or 5 mm across, growing on dead wood. The large bracket fungus called 'White Punk', *Laetiporus portentosus*, was also observed.

The Reserve is part of a project to protect the Southern Brown Bandicoot—William arrived late and managed to spot one while looking for the rest of us. Other fauna sighted comprised kangaroos, and a total of 33 birds, a few more than were spotted on our previous visit.

These included migratory species such as Black-faced Cuckoo-shrike, Rufous Whistler, Fan-tailed Cuckoo, Shining Bronze-cuckoo, and Dusky Woodswallow. As before, honeyeaters were well in evidence.

The plant list below includes only species that we have observed in our two visits. State Herbarium records have many species not noted by us; their tally is 123 species (including 28 introduced species) but does not include some species observed by us (the Herbarium list is of specimens they hold, not of species observed). Since introduced species also convey information about the environment, I have included the exotics that we noted. These are the most common weeds including Sweet Vernal Grass, Onion Grass and White Clover.—**Text & Photos by Lee Denis**

Banksia Fungus



There are four named ascomycetes (cup fungi) that are associated with Banksias, growing on the cones, given the generic name *Banksiamyces*. One is only found on *Banksia saxicola*, one on *B. ornata*, and one is known to grow on several hosts including *B. marginata*. The one that grows only on *Banksia spinulosa* is named *Banksiamyces macrocarpa*. According to Jurrie Hubregestes' *Fungi in Australia* (available from the Field Naturalists Club of Victoria) it is the only species that has been found on that Banksia. It apparently lives off the cone, breaking it down (saprotrophic) and has no function for the plant. This is the largest species of the genus, reaching 15mm diameter. Those we saw were up to 8 or 9 mm. Most of the mature cones on the *B. spinulosa* in question (and also on the ground below the tree) had some fungi on them.

Small Duck Orchid



At Adams Creek we came across Large Duck Orchids (*Caleana major*) in quite a few places, in the bush and beside the fire break track. After a while I became intrigued by what I thought were damaged or nibbled on Large Duck Orchids. Luckily I got out my copy of Rudie Kuitert's 'Orchids of Western Port and Surround', to check.

It turned out I was looking at Small Duck Orchids, *Caleana minor*, or *Paracaleana minor*, an orchid I had not seen before. The flower stems are shorter than the Large, and the flower is smaller and not quite as duck-like.

We often see the Large at Langwarrin FFR, and I have also seen them at French Island. According to Rudie Kuitert, the Small are known only from French Island in our region.

Backhouse and Jeanes say that the Small are co-extensive with the Large, but somewhat less common, and they say too that they are difficult to see. In both species the labellum is extremely irritable, springing to trap insect pollinators.

Both species are well represented in many national parks and reserves, and reasonably secure at present.

Photo By Peter de Lange -
<https://www.inaturalist.org/photos/1756306>, CC0,
<https://commons.wikimedia.org/w/index.php?curid=84294405>

—Judy Smart



Tree ferns between the railway line and the Creek



Hibbertia procumbens



Mitrasacme pilosa var. stuartii,



Lichen (Cladonia sp?) on concrete fencepost

Plant List for Adams Creek Nature Conservation Reserve Observed March and November 2021	
DICOTS	
Acacia dealbata	Silver Wattle
Acacia mearnsii	Black Wattle
Acacia melanoxylon	Blackwood
Amyema pendula	Drooping Mistletoe
Banksia marginata	Silver Banksia
Banksia spinulosa	Hairpin Banksia
Bauera rubioides	Wiry Bauera
Bossiaea cinerea	Showy Bossia
Cassinia aculeata	Common Cassinia or Dogwood
Cassytha melanantha	Coarse Dodder-laurel
Clematis aristata	Mountain Clematis
Dampiera stricta	Blue Dampiera
Daviesia latifolia	Hop Bitter-pea
Dillwynia glaberrima	Heath Parrot-pea
Eucalyptus obliqua	Messmate
Eucalyptus radiata	Narrow-leaved Peppermint
Eucalyptus viminalis ssp pryoriana	Coast Manna Gum
Gonocarpus tetragynus	Raspwort
Hibbertia acicularis	Prickly Guinea-flower
Hibbertia procumbens	Guinea-flower
Kennedia prostrata	Running Postman
Kunzea leptospermoides	Burgan
Lagenophora stipitata	Bottle Daisy
Leptospermum continentale	Prickly Tea-tree
Leptospermum myrsinoides	Heath Tea-tree
Leucopogon australis	Spike Beard-heath
Melaleuca squarrosa	Scented Paperbark
Monotoca scoparia	Prickly Broom-heath
Muelleriana eucalyptoides	Creeping Mistletoe
Myrsine howittii	Muttonwood
Olearia lirata	Snowy Daisy-bush
Persoonia juniperina	Prickly Geebung
Platylobium obtusangulum	Common Flat-pea
Polyscias sambucifolia	Elderberry Panax
Pomaderris aspera	Hazel Pomaderris
Prostanthera lasianthos	Victorian Christmas Bush

Ricinocarpos pinifolius	Wedding Bush
Senecio glomeratus	Annual Fireweed
Stylidium graminifolium	Grass Trigger-plant
ORCHIDS	
Caleana major	Large Duck-orchid
Chiloglottis valida	Common Bird-orchid
Paracaleana minor	Small Duck-orchid
Pterostylis melagramma	Tall Greenhood
OTHER MONOCOTS	
Burchardia umbellata	Milkmaids
Dianella laevis	Pale Flax-lily
Dianella revoluta	Black-anther Flax-lily
Empodisma minus	Spreading Rope-rush
Gahnia seiberiana	Red-fruited Saw-sedge
Lomandra longifolia	Spiny-headed Mat-rush
Patersonia fragilis	Short Purple-flag
Patersonia occidentalis	Long Purple-flag
Tetrarrhena juncea	Forest Wire Grass
Xanthorrhoea minor	Small Grass Tree
Xyris gracilis	Slender Yellow-eye
FERNS	
Adiantum aethiopicum	Common Maidenhair
Blechnum nudum	Gristle Fern
Cyathea australis	Rough Tree-fern
Hypolepis rugulosa	Ruddy Ground-fern
Pteridium esculentum	Austral Bracken
Selaginella uliginosa	Swamp Selaginella
INTRODUCED PLANTS	
Anthroxanthum odoratum	Sweet Vernal Grass
Hypochaeris radicata	Cat's-ear
Pittosporum undulatum	Sweet Pittosporum
Romulea rosea	Onion Grass
Rubus sp.	Blackberry
Trifolium repens	White Clover

The Mornington Railway Reserve

The Mornington Railway Reserve is a narrow corridor of natural grassy woodland running from Moorooduc Station, near the Moorooduc Quarry, through to Watt Rd in Mornington, where the line now terminates. The Balcombe Creek runs alongside the track for some time, before branching off soon after Wooralla Drive towards the Mornington Racecourse and Mt Martha.

In normal times, the Mornington Railway Preservation Society run steam train trips along there three Sundays per month, and the occasional walker or naturalist wanders along there. In Spring time it is a picture with golden everlasting, chocolate lilies, dwarf grass trees in flower, bitter pea, rice flowers, sun orchids, Purple Diuris orchids, lilies and masses of waving grasses—*Stipa* and kangaroo grass. It really is spectacular. There are stands of Snow gums and *Allocasuarina verticillata*, and a series of small wetlands with a large pond in the adjoining Padua College grounds.

The VicTrack land on either side of the railway line lies within what was once Moorooduc Plain: part of the Gippsland Plains bioregion with 95% to 99% of that land cleared for agriculture and urban development, the rail verge land now contains the last surviving remnants of natural plains habitat. It is also the only surviving wild space in Mornington, the other spaces are heavily modified. During Covid lockdown many Mornington and Mt Eliza residents discovered this quiet gem, and walking and mountain biking along there became popular.

It has been designated as part of the Peninsula Trail, a 100k shared walking and cycling network on both sides of the Peninsula, sections of which are already constructed. It would continue on from the Peninsula Link track which finishes at Moorooduc Station. Local politicians, Councillors and cyclists are keen proponents of this trail, which would be very popular with the general public.

The corridor is generally 30m wide, with the rail track taking up 5m in the middle. A shared constructed path would be 3m wide, with a fence needed between it and the railway line. Once you factor in clearances needed on both sides, and construction, there would be very little in the way of natural values left on that side of the railway line.

A working group with members of MEAFEC (Mt Eliza Assoc for Environmental Care), Friends of the Railway Reserve, and ecologists made a submission to Mornington Peninsula Shire asking that alternative routes, which exist and are preferable, be considered.

Since then letters to MPSC asking to be informed about plans for the Trail have been answered by Shire staff stating that there are no funds, no plans and we will be kept informed. On the other hand, the *Mornington News* has regular articles with politicians, Councillors and cyclists pictured at Moorooduc Station, all stating that the Trail is 'shovel ready', and just needs more Federal money. It is hard not to conclude that the plan is to create a *fait*

accompli, without modifications to route, or input from tedious environmentalists.

Nationally Significant EVCs: Ecological mapping shows that within this small reserve remnants exist of nationally significant critically endangered Ecological Vegetation Classes (EVCs):

Natural Damp Grassland of the Victorian Coastal Plain Community: these areas are Environmental Protection Biodiversity Conservation (EPBC)-listed and listed under the Flora and Fauna Guarantee (FFG) Act as Plains Grassland (South Gippsland) Community.

Swamp Scrub (EVC 53) This EVC is described as massively depleted and endangered.

Plains Grassy Woodland (EVC 55) only scattered remnants remain in the entire greater Melbourne area. This is the most biodiverse vegetation community on the Mornington Peninsula.

Endangered species: Adding to the rarity and significance of this reserve is the fact that it is home to several individual endangered species including Swamp wallaby grass, the Purple diuris orchid and the growling grass frog. It is imperative that this area be kept intact, preserved and cared for in a bid to ensure the sustainability of these important species.

Construction of a concrete path anywhere within this reserve has the potential to destroy forever this irreplaceable significant and threatened Mornington Peninsula ecosystem, by:

- increasing weed infestation as a result of soil disturbance — use of skid steer machinery (bob cats and excavators) ripping up native ground flora;
- introducing soil pathogens such as *Phytophthora cinnamomi* (cinnamon fungus) via machinery and worker's boots which kills Grass trees, Banksias, Eucalypt and Pea species and which cannot be eradicated once introduced;
- removal of topsoil containing a significant ancient seed bank which can never be replaced;
- disrupting natural water storage and flows in areas of natural seasonal flooding (and so putting at risk the important water filtering swamp plants and amphibians that depend on that habitat);
- introducing foreign soils and aggregates, potentially containing foreign pathogens and also causing drainage and runoff issues.

The bike track proposal runs counter to the Mornington Peninsula Shire Council's Biodiversity Conservation Plan, which states that vegetation loss, and specifically clearing remnant native vegetation, is the primary threat to biodiversity values on the Mornington Peninsula, and recommends that recreational activities in sensitive areas be

restricted to low impact pursuits such as walking and bird watching. . The Mornington Railway Reserve has been identified as significant remnant native vegetation and as such no clearing should be undertaken there;

Ecology Australia's most recent mapping report for Mornington Peninsula Shire Council sites clearing for infrastructure as a threat to small fragments of remaining bushland. Any bike path constructed within the Mornington Railway Reserve would be further threat to the fragile ecosystems of the reserve. —**Judy Smart**

REFERENCES:

Biodiversity 2037(2017), DWELP
Biodiversity Conservation Plan, (2019), prepared by Ecology Australia, Fairfield, Victoria
Flora of Melbourne (2014) Bull, Marilyn, Hyland House Publishing Pty Ltd
Threatened Wetland Vegetation Communities in the Mornington Peninsula Shire (2020) Ecology Australia, Fairfield, Victoria

Mornington Railway line, Oct 2, 2021

Judy Smart, Lee Denis, Roger Standen

FAUNA

- Banjo frogs
- Spotted marsh frog
- Common froglets

ORCHIDS

none

IN FLOWER

- | | |
|------------------------------------|--------------------|
| Acacia mearnsi | Black Wattle |
| Acacia melanoxylon | Blackwood |
| Acacia verticillata | Prickly Moses |
| Anyema pendulum | Drooping mistletoe |
| Arthropodium strictum | Chocolate lily |
| Billardiera scandens | Apple berry |
| Allittia (Brachyscome) cardiocarpa | Swamp daisy |
| Bulbine bulbosa | Bulbine Lily |
| Burchardia umbellata | Milkmaids |
| Caesia calliantha | Blue grass-lily |

- | | |
|---------------------------|--------------------|
| Chamaescilla corymbosa | Blue star |
| Chrysocephalum apiculatum | Common Everlasting |
| Comesperma volubile | Love creeper |
| Daviesia latifolia | Hop Bitter-pea |
| Dianella revoluta | Flax-lily |
| Dillwynia glaberrima | Parrot pea |
| Drosera peltata | Sundew |
| Hibbertia sp. | Guinea Flower |
| Hypoxis vaginata | Yellow Star |
| Kennedia prostrata | Running postman |
| Leptorhynchos tenuifolius | Wiry buttons |
| Olearia lirata | Snow daisy |
| Pimelea humilis | Rice flower |
| Platyobium obtusangulum | Common Flat-pea |
| Stylidium graminifolium | trigger plant |
| Wahlenbergia sp. | Bluebell |
| Xanthorrhoea minor | small grass tree |

EUCALYPTS

- | | |
|--------------------------------|-----------|
| Eucalyptus ovata | Swamp gum |
| Eucalyptus pryoriana/viminalis | Manna gum |
| Eucalyptus pauciflora | Snow gum |

Spiders galore found along the railway line

From a couple of walks along the railway line near Mornington I saw some great little spiders in the grass and on tree bark.



The brightest coloured was a lively red and black spider (Nicodamidae) that explored the grass, presumably crawling among the grasses searching for food or a mate as I have only seen these on tree trunks prior to this .



Bronze Aussie Jumpers (*Helpis minitabunda*) are regulars in my home garden, so I knew what I was seeing when I found a colourful male sneak out of its bark shelter.



This sac spider (*Clubiona cycladata*) is still safely ensconced inside its webbed sac. These are also in my garden so are widespread. Like many spiders, they are carnivorous predators of arthropods. The females lay their eggs within the sac and stay around to protect them.



Fresh from a recent skin renewal, this Victorian Huntsman (*Isopedella victorialis*) was very smartly marked and moved quickly. Like all huntsman spiders they are flattened in their bodies so they can move under the lifting bark of tree trunks to find shelter, or as they do at home, crawl under rolled up hoses and the like.



The last was a new species to me that I identified as a Hoary Servaea (*Servaea incana*) another lively jumping spider. It certainly lives up to its name as it has quite a thick covering of pale hairs on its legs and body (when used in naming creatures, hoary generally means to be covered in small whitish hairs, or fur).—**Text and Photos by Rog Standen**

Peninsula Field Naturalists Club Inc

Meetings are held on the second Wednesday of each month with a field trip the following Saturday. Further information and current Programme of Activities can be found at our website.

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Newsletter edited by Lee Denis

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