



Friends of Pallister's Reserve Inc.

Pallister's Reserve is a 254 ha wetland reserve on Masons Road, Orford, owned by Trust for Nature, & managed by the Friends of Pallister's Reserve Inc. Established January 1990

**Nov
2025**



Next Meeting: Sunday, November 30, 2025

10am: Working Bee

Noon: Lunch

1:30pm: General meeting

Land Recycling

When Bill Pallister bought his block in 1954, it – and the surrounding land – was entirely forested with virgin bush. Bill got busy!

For Bill – a single man still recovering from the trauma of war – clearing the forest would have been a challenge. In the early days he would have worked without a chainsaw.

Yet Bill was not alone; thousands of settlers cleared bush blocks. Today, driving across the Western Plains, the fruits of their labours are plain to see.

The first of the following photos, taken at a work party at the recently-created Reserve in 1996, reveals how Bill had completely cleared the land extending north from the Woolshed up to Masons Road, indicated by the line of gumtrees.

Taken from the same spot, the second photo shows the view in 2025. The success of re-vegetation works is evident.



**Annual pre-Christmas barbecue.
Bring food for the grill, drinks, and
something to share.**

Noon – 1:30 pm

Tea & coffee on hand

November Meeting Objectives

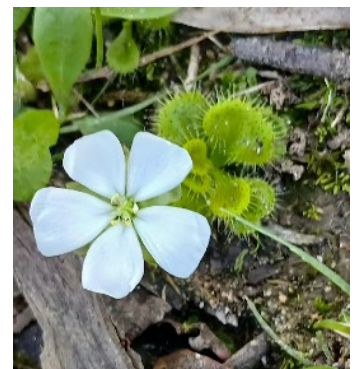
Much to do this month! Bring friends and family to socialize and engage.

- Fire season preparations. In particular, reduce fuel load around the Woolshed.
- Weeding: Peter Bolte dug up an African Weed Orchid on November 9. Presumably there are others to be found. 😞
- Koala count. Binoculars useful!
- Mowing – inescapable at this time of the year
- General meeting. Last meeting for a couple of months so much up for discussion.

Scented Sundew (*Drosera aberrans*) New species for Pallisters

A single plant of a small sundew with a large white flower and a rosette of typical sundew leaves was found on the Pallisters Track, about 2-300 metres from its start, on 14 September. It was first identified as the Scented Sundew from a Google search and this was supported by reference to Kevin Sparrow's *Plants of the Great South West* (Ref: 4th edition, page 220). Sparrow gives a lot of further information on the species. I also put it on iNaturalist where it was positively identified and given Research status.

...Trevor Kennedy



Pallisters Reserve lies in the traditional Country of the Eastern Maar and Gunditjmarra peoples, who never ceded their sovereignty of the Land. We are indebted for their past and ongoing custodianship.

Meetings are held at the Reserve; usually every fourth Sunday except July and December.

Co-leaders: Julia Schlapp 0427 778 265 & Anthony Leddin 0408 333 046 Sec./Treasurer: Trevor Kennedy 5565 8692;

Minute Sec.: Nick Glover; Newsletter Editor: Ross Hicks (pallisters_newsletter@proton.me).

Open Day Report

On November 2 we welcomed **Matthew Hudson, Principal Hydrogeologist at Southern Rural Water (SRW)**, the company area that monitors and manages groundwater over much of southern Victoria. Matthew has a Masters Degree in Groundwater Engineering and 35 years experience in the geological and hydro-geological sector. He was accompanied by Natalie Craven, Team Leader Operations and Compliance in the Western part of the company's area.

Including some additional material from links provided by Matthew, and also emphasizing points applicable to Pallister's Reserve, a selective summary of Matthew's rich presentation follows. Matthew's [full presentation](#) is available in Powerpoint format on the cloud.

- Groundwater exists in aquifers – sub-surface layers of fractured rock, gravel, sand or limestone that are porous enough to hold groundwater and sufficiently permeable to permit flow.
- Aquifers may be separated and confined by aquitards, relatively impermeable layers of rock or clay.
- Aquifers are recharged by rainfall and by direct contact with lakes and streams. [Speaking at Peshurst in mid-August, Dr. John Webb of La Trobe University observed that in south-west Victoria about **90%** of the precipitation remains close to where it falls, to be subsequently returned to the atmosphere by evaporation and transpiration. Allowing for other outcomes, e.g. discharge by rivers into the ocean and industrial and domestic use, less than 5% of precipitation ends up as groundwater.]
- As indicated in the table below, in the vicinity of Pallister's Reserve, [aquifers extend](#) to depths approaching 1km:

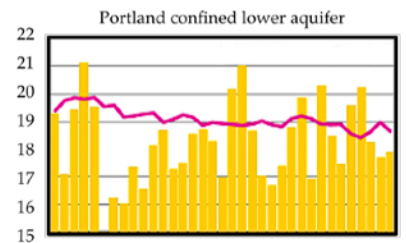
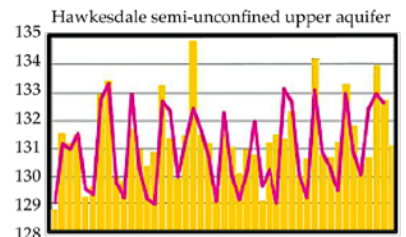
Layer	Age (Ma)	Depth (m)	Salinity (g/L)
Aquifer: limestone, sand, gravel, clay.	10–20	0-88	1-3.5
Aquitard: clay, silt, fractured siltstone and marl, minor sand	20–40	88-297	
Aquifer: sand, gravel, fractured limestone, minor clay, occasional coal	30–50	297	0.5–1
Aquifer: sand, gravel, clay and silt, minor coal	50–66	315-715	0.5–1
Sediments: fractured sandstone, mudstone, siltstone and minor coal	70–300	715-799	
Bedrock: sedimentary: fractured sandstone, siltstone, mudstone, and shale plus igneous volcanics and granites.	100–500	779-979	1-3.5

Note:

- Ages are approximate. 1 Ma = 1 million years before present.
- The maximum salinity for irrigating crops ranges up to about 0.2 g/L; livestock can tolerate salinities up to 1 g/L. Sea-water has a salinity of 3.5 g/L.
- Being closer to the ground surface, upper aquifers are much more responsive to rainfall than deep-lying aquifers. The plot at the top of the right-hand column shows that over a one-decade period the level of the near-surface Hawkesdale limestone aquifer varied over a 4m range, much more than the 1m change seen in the deep Portland aquifer.
- Extending across much of the South-West, including the broad region around Pallister's, the Port Campbell limestone aquifer is porous and permeable: its groundwater can move relatively unimpeded. Heavy pumping by one user may therefore draw groundwater away from neighbouring properties, particularly if the bores do not extend deep into the aquifer.

Variation in water levels observed for two south-west aquifers over 10 years from 2000 to 2010. Levels are indicated in metres, measured relative to the Australian Height Datum. Yellow bars represent the quarterly rainfall on a scale ranging from 0 to 350mm.

Although the upper – limestone – aquifer is overlaid by basalt at Hawkesdale, for much of its range it lies at the surface, and is therefore exposed to weather events.



- Densely-planted, deep-rooted agroforestry plantations also impact nearby properties. Nevertheless, there currently exists no mechanism in Victoria to address the water resource impacts from plantation forestry: plantation water use is not recognized or accounted for under the State's water entitlement system.
- In south west Victoria, groundwater currently supplies about half the water needed for farming, industry and urban use. In many rural areas, it is the only reliable source of irrigation and is a vital source of stock and domestic supply, especially in dry times.
- The principal task of SRW and other water corporations is to manage and monitor groundwater through licensing, applying caps on allocations, restricting dry-season use, and regulating entitlement transfers.
- The 1989 Water Act permits any person to take groundwater free of charge for their private domestic and stock use. This includes fire prevention and irrigation of a kitchen garden. Although a license is required to drill a bore, the groundwater consumed in these circumstances is unmetered.
- Crop irrigation, dairies, piggeries, feedlots, mines and commercial uses require detailed applications and usage is metered.
- In addition to salt, fertilizers and other contaminants may exist in groundwater. It is up to the user to ensure that the water quality meets their requirements.
- Notwithstanding the recent dry years, available evidence suggests that the groundwater supplies in the south west remain stable. Usage amounts to just 30–45% of allocated entitlements and many entitlements are unused. For this reason SWR conducts an [online trade room](#) where clients can buy and sell water.
- Being copiously supplied, accessible, and reliable, limestone aquifers are the most heavily used aquifers in south-west Victoria. They are a critical resource. Recognizing this, SRW has set up a South West Limestone Local Management Plan (SWL LMP) which covers not only Port Campbell Limestone, but also the Gambier and Portland Limestone aquifers.
- The primary objective of SWL LMP is to ensure that the groundwater resources are managed in an equitable and sustainable manner. Another concern is the sustainability of Groundwater-Dependent Ecosystems GDE. When water tables drop, streams and wetlands discharge water directly into aquifers, and their ecology suffers.

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Peter Bolte's Koala Counts

Aug. 2024 – Oct. 2025

by Trevor Kennedy

As we come to the end of 2025, and our 4th and last Koala survey count, it is timely to look back at what Peter has shown us in his parallel koala counts done at the same time as his bird counts. In particular, his results allow us to see a little about how koalas are moving between the blue gum plantation west of Pallisters (left of site 5 in the map below) when logging of the site took place in mid-2024. We know koalas are living in these blue gum areas and we have just one count around Pallisters from several years ago that indicate similar numbers per hectare to our reserve. So, the question: How do koalas move when logging takes place?

Peter counts koalas at the 5 sites shown. Each covers about 2 hectares. Three, covering 6 ha, are in the Pallisters bush (sites 1 to 3), site 4 is in the Hocking bush, and site 5 is near our boundary with the blue gums and also covers 2 ha.

Peter has counted the koalas per site now for 15 months and I've summarised his results in the Table to allow you to think about what they show about the koalas' movement after logging. Remember that the plantation managers have very strict requirements that oblige them to carry out comprehensive counts immediately before logging, and to leave a minimum number of trees for each animal.

The first 4 data columns are for Pallisters bush for the last 15 months. The highest number can be at any site and the number seen by Peter is between 0 and 8, but most commonly 3 to 6 so 1 to 2 per site. The next 2 columns show the single Hocking site where numbers are mainly 0 with only the summer months of 2024-25 having 1 to 2 per site, similar to Pallisters for that time. Last month, October 2025, did show 3 at the site. The west boundary site, Site 5, is also a single site but it has sometimes had numbers as high as the total of all of the sites in Pallisters! Most commonly, there are 4 per site but this may be as high as 8 for the site. 3 months did show just one koala at the site though.



The last 2 columns show the changes in koala numbers and changes in their concentration at the west boundary site.

The total number being seen by Peter in all sites varies considerably across the year with lower numbers occurring in late winter-early spring (August and September) and summer-early autumn (December and February-March). The pattern is similar for both Pallisters Bush and the west boundary area. This could indicate factors like weather that would affect numbers seen at sites, but could also represent real changes in the numbers of koalas across the year.

We were worried in 2024 soon after logging, when the numbers seen at the single boundary site rose sharply and were at a density of several times that in Pallisters bush. But, as the numbers at this boundary site dropped off, the problem seemed to be righting

Month	Pallisters bush sites				Hocking site		west boundary site		Total at all sites B1 to B5 Pallisters + Hockings	% of koalas found on west boundary
	Site B1	Site B2	Site B3	Total Pallister -3 sites, 6ha	Site B4	Total Hocking - 1 site, 2 ha	Site B5	Total west boundary - 1 site, 2 ha		
Aug-24	2	1	1	4	1	1	4	4	9	44
Sep-24	2	0	4	6	1	1	8	8	15	53
Oct-24	1	1	2	4	0	0	6	6	10	60
Nov-24	1	1	5	7	0	0	7	7	14	50
Dec-24	0	1	1	2	0	0	3	3	5	60
Jan-25	0	3	3	6	1	1	4	4	11	36
Feb-25	1	2	0	3	1	1	1	1	5	20
Mar-25	2	1	0	3	1	1	1	1	5	20
Apr-25	1	0	5	6	2	2	4	4	12	33
May-25	2	1	3	6	0	0	7	7	13	54
Jun-25	0	3	3	6	0	0	4	4	10	40
Jul-25	4	0	4	8	0	0	4	4	12	33
Aug-25	0	0	0	0	0	0	1	1	1	100
Sep-25	2	1	1	4	0	0	4	4	8	50
Oct-25	2	1	2	5	3	3	4	4	12	33

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itself, until April this year when numbers rose again. Certainly, we can say that densities on the boundary are generally higher than elsewhere. However, numbers at the one site in the Hocking bush have not increased as numbers rose along the boundary remaining very low, perhaps until last month. Is this, as suggested in an earlier article, due to less food availability because fewer trees are Manna Gums or Swamp Gums? Are the koalas near the boundary "trapped" by the more-common Mana and Swamp Gums there and less likely to move further into the reserve?

Finally, the last column gives another way of looking at what's going on. With 5 sites, we might expect to see one-fifth of 20% of the koalas at each site over time if all are moving rapidly and randomly across the reserve. In fact, the number seen on the boundary rose quickly to 60% not long after the logging, then dropping back to around 20% after few months at the same time as total numbers went down. This has more recently risen again to 30 to 50% indicating greater than expected numbers while tracking the rise in overall numbers which are showing a rise in numbers in both Pallisters bush and on the west boundary.

The last koala count for 2025 will be held on November 30. Your participation appreciated!

Portland Field Naturalists' Club

80th Anniversary

Saturday 13th December 2025

Venue: Portland Yacht Club on the foreshore

All Pallister's Members Welcome

5-6 pm Meet and greet

6pm Light meal. (Own-cost bar)

RSVP for catering by 30th November to Ruth at irgraney@bigpond.com or text to 0429 533 549, indicating any dietary restrictions.

7pm Natural History of Portland Region

presented by Raz Brewer, keen naturalist and accomplished photographer.

Showcased will be PFNC's rich history, conservation achievements, and the region's diverse flora & fauna.

Those staying over in Portland into Sunday December 14 may appreciate the opportunity to join the South West Environment Education group (Fawthrop Lagoon Group) in a guided Culture and Heritage Tour in the Discovery Bay Coastal Park. Tour leader will be Gundjt Mara man Shae Rotoumagh. The excursion will end with either a Pub lunch or BYO picnic at the Dartmoor Hotel.

Cloud Resources

[Matthew Hudson's Groundwater Presentation](#)

[Peter Bolte's Compilation of Camera Trap Clips from Pallister's and Kurri Kurri](#)

[Koalas at Pallister's](#)

[Pallister's Reserve Management Plan](#)

[Newsletters: 2023 to current](#)

[Membership Form](#)