

# Friends of Pallisters Reserve Inc.

Pallisters Reserve is a 254 ha wetland reserve at 457 Masons Road, Orford, owned by Trust for Nature, and managed by the Friends of Pallisters Reserve Inc.

Established January 1990

Sept. 2023



Next meeting: Sunday, September 24, 2023

10am: Working Bee noon: Lunch 12:30pm: Meeting

### September Working Bee Objectives

- Planting of seedlings funded by Pacific Hydro. There are 2000 plants, mainly grasses, forbs, sedges, and lomandra. Any assistance members can provide will be appreciated.
- Clean-up drive-way following September 7 gale.

#### FROM THE AUGUST 27 MEETING

- Winter water levels measured in the 3 bores are close to the levels measured 1 year ago.
- Four koalas were observed in the quarterly koala count.
- Brian Waters and Peter Bolte removed 98 coastal wattle seedlings from near the south boundary in the Pallisters section.
- On August 19 Peter Bolte observed a pair of brolgas with a nest in the region of the West Swamp. The same pair was still present on August 27, although the nest could no longer be seen due to vegetation growth. Despite the presence of an observer, the brolgas did not fly away, so perhaps they had a chick with them.
- The 12-year-old laptop computer used for recording bird sightings and processing trail camera images and videos is failing. Trevor Kennedy will look into replacement options.

#### **IN FLOWER**

In flower at this time of the year is the Spiny-headed Mat-Rush *Lomandra longifolia*, a plant native at Pallisters. It was a widespread practice for Aboriginal women to split the smooth strap-shaped leaves of the mat-rush for basket-weaving. At Tae Rak – Lake Condah – mat-rush eel traps are still woven.

Commonly planted in public and private gardens, mature stands of *Lomandra longifolia* provide habitat for wildlife – native and introduced. At the start of the 2023 winter, for example, a Lewin's Rail took up residence in a thick stand beside the Koroit CFA Station. Readily observed, the Rail remained a consistent presence over several months.



Spiny-headed Mat-Rush Lomandra longifolia



Pallisters Reserve lies in the traditional country of the Gunditjmara and Eastern Maar 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.

# Friends of Pallisters Reserve Inc.

### Pallisters Koalas: Context

Koalas are on a path to extinction in the wild. With the imminent effects of climate change and continued land-clearing, some project that this could happen within 30 years.

It is estimated that there were about 8 million koalas in Australia before colonization. Most of this population was eliminated by the shooting – lawful and unlawful – of koalas for their furs in the 1920s and 1930s.

By 2018, the remaining koala population was assessed to be in the range 45,745 – 82,170. During the next three years, from 2018 to 2021, the Australian Koala Foundation (AKF) estimated a further 30% decline in numbers, spread over all states of the koala range. Queensland and NSW–ACT suffered the largest declines: 37% and 41%. With Kangaroo Island excluded, the decline in South Australia was estimated to be 31%. Victoria had the least reduction: 16%.

While the catastrophic bushfires of 2019-2020 accounted for much of this decline, other factors including land-clearing, heat-waves, drought, and disease, also work against the koalas.

The AKF breaks down their estimates, publishing numbers for all Federal electorates with koalas. In 2021 our large Wannon electorate, extending from the border with South Australia in the west, to Anglesea in the east and Ararat in the north, was estimated to have 2,000 – 5,000 koalas, about 14% less than in 2018.

Deborah Tabart, Chair of AKF, enumerates "Koalas in this electorate are concentrated to the west from Fort Fairy to the South Australian border and north to Edenhope. ... Elsewhere in this electorate koalas are scattered around Ararat and Beaufort, and there are koalas on the western fringes of the Otway Ranges north of Port Campbell. Koalas have disappeared from the Grampians because of bushfires. ... Koalas are also scattered around Warrnambool."

For the Friends of Pallisters the AKF has generated a detailed map rating all possible koala habitat in a 29 km x 27 km region around our Reserve. In this map, reproduced on the next page, red indicates the remaining high-quality habitat capable of supporting high-density koala populations and green areas are designated as lesser quality habitat. Dark areas are agroforestry plantations. Most of the terrain in the map – appearing as grey – is cleared land, incapable of supporting koalas. Overall, AKF assesses that just 31.5% of Wannon remains as potential koala habitat.

As the map underscores, the available koala habitat is not merely reduced, but perhaps even worse – it is also strongly fragmented. Under such circumstances koalas find it difficult to disperse for breeding and become inbred. Inbred populations are more susceptible to disease, may be infertile, exhibit congenital malformations, and be less capable of resisting stresses such as drought and the effects of climate change. In general, their physical condition and resilience is inferior to that of genetically-healthy populations.

Of much concern is the over-crowding of koalas into restricted habitats unable to match their nutritional requirements. Resultant heavy browsing pressure leads to widespread tree death, making the situation even more desperate: koalas slowly starve, dropping to such poor condition that they die or must be euthanised. (Of course, other forest-dependent wildlife also suffers.)

A range of conditions can bring about overcrowding: land-clearing, drought, fire, plantation harvesting, climate change, or simply a prolonged birth *vs* death imbalance; all with the same potential appalling consequences.

While it seems well-motivated, the translocation of koalas from overpopulated forests to areas from which they have disappeared does not always solve the problem. Few suitable sites are available for translocated koalas and studies indicate a high level of mortality – 40%-90% – for translocated groups.

The AKF provides the most thoroughly researched data on koala populations, however their numbers are not undisputed. The AKF biasses their population figures by confining their assessment to genetically healthy koalas capable of long term sustainability. Problematic for the AKF are artificial "islands" of koalas, created by translocating koalas having limited genetic-diversity into impaired landscapes where they are unable to disperse for breeding. Under such conditions, koalas become strongly inbred and have reduced value.

In Wannon electorate, such populations likely exist at Framlingham Forest, Budj Bim and Tower Hill.

An informed examination of this hot topic lies beyond our expertise.

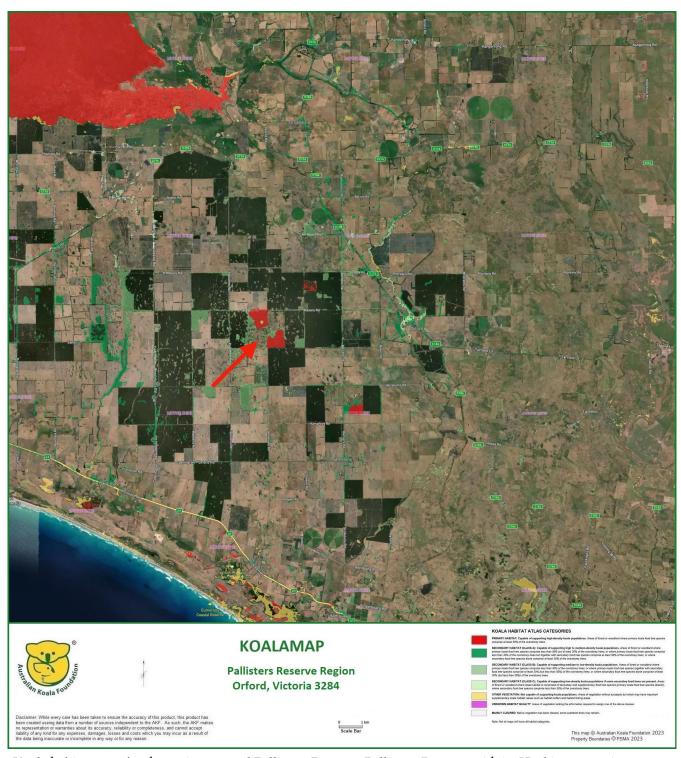
The status of koalas in Australia is politicised, with conservation and tourism sectors generally at odds with developers, private landowners and primary producers. Government estimates are criticised for their reliance on limited data bases and giving undue weight to large inbred populations.

What does all this mean for Pallisters?

An immediate goal is to maintain a healthy and ecologically-sustainable population of koalas on the reserve. This will be challenging, for as the mature agroforestry plantations surrounding Pallisters are progressively harvested, koalas presently residing in these plantations will gravitate to join koalas already resident at Pallisters.

In the next edition of the Newsletter, Trevor Kennedy will explore in more detail the specific koala concerns for Pallisters Reserve. He will also describe our ongoing koala monitoring program.

## Friends of Pallisters Reserve Inc.



Koala habitat map for the region around Pallisters Reserve. Pallisters Reserve with its Hocking extension are identified as high-quality koala habitat in the centre of the map. The large red area at the top is Budj Bim. (We gratefully acknowledge the Australian Koala Foundation for generating this customized map.)

#### Sources – For further information

Australian Koala Foundation: https://www.savethekoala.com

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