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Eucalyptus imlayensis (Imlay Mallee) Fully Protected Since 1972 – 50 Years Drifting Towards Extinction

On page 2 of the NSW NP&WS September 2021 Zero Extinctions Report, it states: "*There is evidence that the overall decline in biodiversity in NSW is occurring even in the national park estate.*"

While ever the NSW conservation reserve system is underperforming this will place undue pressure on state forests and private property to make up for the conservation reserve failings. This potentially places more pressure to transfer production forest to the conservation reserve system, which further reduces available hardwood timber volumes.

Why do environment ministers and environmental activist organisations fail to focus much attention on the performance of the conservation land tenure, which currently contains 80 percent of the NSW public land base potentially available for conservation reservation?

In contrast to the tens of millions of dollars allocated to koalas each year, a south east NSW example of a species that needs more research and management funding, is the Imlay Mallee. There have been no rivers of cash announcements for this critically endangered species.

Prior to the 2019-20 Border fire, there were reported to be 80 mature Imlay Mallee, with no naturally regenerated juveniles, in less than 4 square kilometers of Mt Imlay National Park. The entire area occupied by this species was burnt by a high intensity bushfire on 4 January 2020.

Prior to the fire, the mature trees were in generally poor health and setting little or no seed. In 2011, 23 seedlings were planted, following a 10 percent decline in the population over the prior 10 years.

The Imlay Mallee was listed in NSW as Critically Endangered on 11 December 2009. The status of the Imlay Mallee is currently being reassessed by the NSW TSSC, with assessment due for completion by 30 April 2022.

The *Consultation on Species Listing Eligibility and Conservation Actions* Report advises:

- *The reproductive ecology of Imlay mallee is not well understood and requires further investigation;*
- *Some plants have produced viable seeds that have been used to establish a few ex situ individuals;*
- *Natural establishment from seed appears to be a very rare event, as no seedling or juveniles have ever been observed on Mount Imlay since the species came to the attention of science in 1977;*
- *The single population of Imlay mallee had not been burned for many years prior to the 2019–20 bushfires. Surveys following those fires have observed approximately 90 percent of individuals resprouting from lignotubers, with the other approximately 10 percent having been killed by the intense fire. No seedlings have been observed since the fires;*
- *Between 2000 and the 2019–20 bushfires the population declined by approximately 10 percent with another 10 percent perishing in the fires, bringing the number of mature*



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individuals down to about 48 (G Wright 2021. pers comm 19 November). This represents a total population reduction over the past 44 years (1977 to 2021) of over 31 percent,

- *Surveys conducted on 6 November 2020 (after the bushfires) counted 48 mature individuals. All of these were resprouting from the base after being severely burnt.*
- *Where competition from native vegetation is suspected, including from other Eucalyptus species, of impeding seedling recruitment by Imlay mallee, continue thinning this vegetation while ensuring that any unintended environmental impacts from this action are minimised;*
- *Investigate potential causes of historic and current lack of recruitment in the species, and potential management actions to encourage seed production and seedling establishment;*
- *The species had been propagated and translocated to nearby sites on Mount Imlay (Balawan), however, all 37 surviving plants were killed in the 2019-20 fires.*



Planting of 23 Imlay Mallee Seedlings 21 September 2011

The Consultation Report makes no mention of basic eucalypt silviculture. If the Imlay Mallee were to produce seed, with a ground litter layer and mulch, similar to that in the photo above, the seed would not contact mineral soil and would not germinate.

As with most ecological fire discussion by ecologists, there is also no consideration given in the report to management decision not to use very low intensity, patch burning among the mature Imlay Mallee (in prior decades) to create a seed bed, in the event any viable seed was produced by the mature trees. Regular low intensity burning would have reduced the intensity of the 2019-20 bushfire and reduced the impact of that fire on the park biodiversity and other values.

Some diversion of koala funds to this and other critically endangered species should deliver improved conservation outcomes, compared to those delivered by bureaucrats and environment ministers throwing money at populist activist icon species campaigns.

