# Submission on Review of Environmental Factors: Illawarra Escarpment Mountain Bike Project

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Urban Biodiversity Illawarra

Urban Biodiversity Illawarra is an Illawarra-based organisation committed to the collection and dissemination of information on indigenous flora and fauna of the Illawarra in order to promote its conservation.

# RE: Rhodamnia rubescens (Benth.) Miq. Scrub Stringybark

Scrub Stringybark is a small tree or shrub which grows along rainforest edges. Fuller (2021) comments that "....it is now rare in the area, and numbers are declining due to infection by Myrtle Rust *Puccinia psidii*, ....." a fungal disease introduced from South America. Small populations or individuals of Scrub Turpentine have been recorded at various sites on the Illawarra escarpment, especially along vegetation edges. Fungal spores of Myrtle Rust and associated damaged leaf tissue have been recorded on all recorded specimens (G. Leonard pers. obs.), although it is apparent that some ramets are not as heavily infected as others (Graça *et al.* 2011.).

Myrtle Rust spreads naturally by wind, water, insects, animals and humans. Myrtle rust spores can remain viable for up to three months and may spread over long distances, if carried on contaminated equipment, vehicles and clothing. Myrtle Rust has the potential to affect a number of Illawarra Myrtaceous species in the Illawarra, although its impact on the populations of Scrub Turpentine on the Illawarra escarpment and floodplain has been especially dramatic.

Scrub Turpentine is listed as Critically Endangered under the NSW Biodiversity Conservation Act. Prior to 2010, Scrub Turpentine had been described as "common" in the Sydney Basin (Benson and MCDougall 1998). It is apparent that Myrtle Rust has been a significant factor in the rapid decline of this species in Illawarra, as well as other parts of east-coastal Australia. It is also likely that Myrtle Rust has the potential to affect populations of a range of other Myrtaceae genera, including Melaleuca, Syncarpia, Callistemon, Leptospermum and Eucalyptus.

In the context of proposed cycle tracks on the Illawarra escarpment, ramets of Scrub Turpentine have recently been recorded in the Illawarra Escarpment State Conservation Area in the near vicinity of delapidated structures known as O'Brien's Drift. In most cases, the Scrub Turpentines have been recorded along or very near existing cleared areas and tracks, and one plant that was on a track has since been killed or removed. Despite our having sighted Scrub Turpentines in three separate locations near O'Brien's Drift on two casual walks through the area, the Ecological Assessment report that is included at Attachment C to the draft Review of Environmental Factors says that the participating ecologists did not sight any Scrub Turpentine in the area immediately south-east of O'Brien's Drift. See Attachment 1 for images and location details.

The quality of the documentation provided in the Ecological Assessment is insufficient to determine the precise location of planned cycle tracks, and how close these might run to the Scrub Turpentines in the O'Brien's Drift area. Given the topography and the available documentation, it seems quite possible that cycle tracks are being proposed very near to one or more local occurrences of Scrub Turpentine.

There is great potential for cyclists to disturb these critically endangered plants by:

- Causing mechanical damage to foliage and laterals by brushing against or colliding with the plants;
- Causing soil compaction over the plants' root zones; and

• Contributing to erosion and alteration to existing moisture regimes by increasing track widths and by regularly disturbing bare soil surfaces.

Moreover, the potential for cyclists to spread the fungus to other areas is great: Fungal spores may adhere to bike parts and cyclists' clothing. It is unlikely that cyclists would bother to clean their bike and clothing to adequate hygiene standards to ensure the sterilisation of any fungal spores.

We are concerned that the Ecological Assessment that informs the Review of Environmental Factors failed to find any Scrub Turpentine in the study area. The Ecological Assessment report states (p.ii) that 'No threatened flora were found in the study area and none are likely to be impacted as a result of the project.' This raises concerns about the overall quality of the Ecological Assessment.

Additionally, we are concerned about the proposal to develop cycle tracks and allow cycling in an area where a critically endangered species occurs.

We recommend that an area 20m either side of all proposed cycle track routes be resurveyed for Scrub Turpentine by someone familiar with their local occurrence and appearance, and that the cycle tracks proposed by National Parks and Wildlife Service be rerouted as required to avoid having a significant impact on this critically endangered species.

Besides the above, Urban Biodiversity Illawarra contributed to and supports the Illawarra Escarpment Alliance's submission on the Review of Environmental Factors.

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on behalf of Urban Biodiversity Illawarra

### References

Benson, D. and McDougall, L. (1998) Ecology of Sydney Plants: Part 6: Dicotyledon Family Myrtaceae: *Cunninghamia* **5**; 809-986.

Fuller, L. (2012) Wollongong's Native Trees, 3rd edition. Leon Fuller, Keiraville.

Graça, R., Aun, C., Guimarães, L., Rodrigues, B., Zanza, E. and Alfere, A. (2011) A new race of *Puccinia psidii* defeats rust resistance in eucalypts. *Australasian Plant Pathology*. DOI: 10.1007/s 13313-011-0056-8.

## Attachment 1. Scrub Turpentine near O'Brien's Drift



#### **Hide Nearby Photos**

#### Image 1.

The leftmost photograph shown in Image 1 above is of a Scrub Turpentine registered in SEED. The 10-odd individual ramets (19 photographs) in the centre right of this image have not been recorded in SEED, but are located at approximately 150.83438, -34.40259.

The two grey rectangles just south of Harry Graham Drive are the abandoned shed structures known as O'Brien's Drift.

## Image 2.

Image 2 above shows one of around 10 Scrub Turpentine ramets recently recorded just to the south east of O'Brien's Drift (as depicted in Image 1). The ramets are distributed over an area of approximately 16-20sqm.