

Environmental Survey

Assessments – Data Summary

Two environmental surveys were conducted in the Dyurrite Cultural Landscape (Mt Arapiles-Tooan State Park) to assess the impacts of recreational use of Dyurrite (Mt Arapiles) on threatened plants.

Preliminary field assessments were conducted to record and map populations of threatened plants within the park and provide a decision-making context for sensitive or at-risk environmental values.

Initial surveys conducted at climbing areas revealed a wide range of disturbances and weed species with some locations highly degraded due to trampling and subsequent vegetation loss.



An example of the trampling disturbance experienced by the Skeleton Fork Fern. Trampling was evident across all climbing sites surveyed, although varied significantly in its severity (April 2021)

Other recorded impacts from recreational use included:

- Cut stumps and branches
- General rubbish
- Rock cairns
- Presence of informal tracks
- Toilet waste

The preliminary survey team consisted of experienced Parks Victoria ecologists, which mapped 244 records of threatened species.

Parks Victoria then engaged a survey conducted by independent botanists familiar with the flora of the Wimmera region to ensure target threatened species were identified correctly, including the Pale Groundsel and the Wimmera Mallee-box.

These targeted surveys were undertaken in October 2021 prioritising areas of higher intensity climbing activities and aligned with the Archaeological survey area.



Assessment data revealed *Psilotum nudum* – Skeleton Forkfern was the most at-risk endangered species within the study area as it occurs only within rock crevices of outcrops and cliff faces, at all elevations. It is susceptible to being dislodged by recreational climbing.

Prostanthera arapilensis - Arapiles Mint-Bush was also recorded as a high-risk species because it is only found in small area of Victoria, is critically endangered and has moderate to high exposure to rock climbing activities. It was observed at multiple locations and is exposed to impacts from people using informal walking tracks and in assembly areas.

In some areas more frequently accessed by visitors, herbaceous weeds made up most of the ground vegetation and commonly comprised *Ehrharta calycina* Perennial Veldt-grass, *Ehrharta erecta* Panic Veldt-grass, *Marrubium vulgare* Horehound, *Briza maxima* Large Quaking-grass, *Arctotheca calendula* Capeweed, *Helminthotheca echioides* Ox-tongue, *Avena fatua* Wild Oat, *Fumaria bastardii* Bastard's Fumitory, *Bromus rubens* Red Brome, *Sonchus oleraceus* Sow Thistle and *Carduus pycnocephalus* Slender Thistle.

Some species of weeds stood out as being of greater management concern than others in the targeted survey, including *Asparagus asparagoides*. It is a Bridal Creeper which is a climber that has the capacity to smother any understorey plant which it can use to grow on for structural support.

It was recorded by Parks Victoria in the initial survey in the greatest number of climbing sites, second only to *Briza maxima* Large Quaking-grass. It poses a risk to all threatened shrub species within the study area. A large number of seedlings were observed, and mapping data only reflects areas where this species was more conspicuous or abundant.

Pedestrian impacts were by far the most frequent threat to the environment because they facilitate the spread of weeds (and pathogens) throughout the landscape. In an area of less than two square kilometres, more than 10 kilometres of informal access tracks were mapped during the surveys.

The informal walking tracks, created by park users are unplanned and are not maintained by Parks Victoria.

The targeted survey also mapped the high level of environmental impacts in scree-slopes (a collection of small loose stones that pile up at the base of a cliff or slope). These zones contain most of the informal tracks to access the climbing sites from the main camp.

Dyurrite (Mount Arapiles) and Mitre Rock contain a range of biodiversity values, including the presence of 38 state or nationally threatened plant species.

Parks Victoria has an obligation as the land manager to protect listed plant species in accordance with state and national legislation. Parks Victoria is also a key stakeholder in implementing the State Government's Biodiversity 2037 policy, which outlines the strategic actions for the conservation of biodiversity in Victoria.