



SAVING OUR SPECIES

Needle Geebung

2020-2021 annual report card

Overall status*

- Populations at all sites are known to be on track.
- **Threat management is known to be on track at all sites, and population status is unknown at one or more sites.**
- Threat management is known to be off track at one or more sites, and population status is unknown at one or more sites.
- Populations at one or more sites are known to be off track.

* For SoS priority management sites (may not include all locations where the species occurs in NSW)

Summary

Management sites	Great Western Highway
Action implementation	4 (of 4) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$4,050 (\$3,000 cash; \$1,050 in-kind)
Partners	Blue Mountains City Council; Environment, Energy and Science



Scientific name:
Persoonia acerosa

NSW status:
Vulnerable

Commonwealth status:
Vulnerable

Management stream:
Site-managed species

Photo: Steven Douglas

Priority management site: Great Western Highway

<p>Local government area: Blue Mountains</p> <p>Partners: Blue Mountains City Council; Environment, Energy and Science</p>	<p>Population outcome</p> <ul style="list-style-type: none"> ● On track ● On track (inferred) ● Not on track (inferred) ● Not on track <p>The species population is inferred to be on track based on threat management being on track. The population trend is unknown at this time.</p>
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Monitoring

Species population monitoring by one or more methods indicates response to management over time and provides an outcome measure.

Baseline monitoring conducted.

Monitoring metric	Species abundance
Monitoring result	A total of 165 plants were recorded (average 18.33 per plot, 4.93 SE). Recent recruitment was observed at only one of 7 plots. However, there was evidence of reproduction (flowering, fresh fruiting) on most adult plants at 6 out of 7 plots. A large population in Lawson South was found in poor health, with 34% of individuals at this location diseased, 31% senescing or recently deceased and no recruitment observed. However, new growth was present on many plants indicating a more recent positive growth response.
Scientific rigour of monitoring method	Moderate
Conducted by	Blue Mountains City Council; Environment, Energy and Science

Investment

Participant	Cash	In-kind
Blue Mountains City Council	\$0	\$350
Environment, Energy and Science	\$3,000	\$700

Management actions

The following actions are those identified as being required in financial year 2020-2021 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Burning for hazard reduction and other unnatural ignitions have increased fire frequency and may threaten the species' survival.	Liaise with relevant fire agencies to ensure species requirements into fire planning.	Yes
Disturbance by recreational trail bikes, 4WDs, rubbish dumping at large population on Council Reserve in Lawson.	Maintain barriers to prevent trail bikes and 4WDs entering council reserve at Lawson.	Yes
Habitat disturbance during road maintenance.	Inspect and maintain existing guideposts and signage along road and fire trail. Install new guideposts and signage as required.	Yes
Weed invasion on trail and road margins and on the edge of bushland.	Undertake secondary weed control to follow up primary weed control of areas where weeds encroaching on populations	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Burning for hazard reduction and other unnatural ignitions have increased fire frequency and may threaten the species' survival.	Maintain fire frequency between 7 and 15 years, with fires of moderate intensity, and no fire more than once every 10 years.	Not assessed
Many <i>Persoonia</i> species are killed following infection by <i>Phytophthora cinnamomi</i> .	Complete baseline testing to establish species' susceptibility to <i>Phytophthora</i> .	On track
Habitat disturbance during road maintenance.	No evidence of disturbance during road maintenance activities.	On track
Disturbance by recreational trail bikes, 4WDs, rubbish dumping at large population on Council Reserve in Lawson.	Disturbance impacts are minimal.	On track
Weed invasion on trail and road margins and on the edge of bushland.	Weed densities are maintained at low (<10%) levels.	On track
Lack of knowledge about the distribution of the species and threats.	Maintain or reduce level of threat.	Not assessed

Site summary

In 2020–21, baseline population data was collected across 7 populations in Lawson, Leura and Wentworth Falls. Seven new permanent monitoring plots were established in June–July 2020, and a further 2 established in May 2021. A total of 165 plants were recorded (average 18.33 per plot, 4.93 SE). Most populations were healthy and showed evidence of reproduction. One large population in south Lawson was found to be in poor health, possibly resulting from drought-related stress experienced in 2019–20. New growth present on many plants within this population indicate a more recent positive growth response, likely due to high rainfall from early 2020 onwards.

Ongoing bush regeneration was undertaken in south Lawson to address the impacts of weed encroachment by sweet *Pittosporum*, blackberry, small-leaf privet, Japanese honeysuckle and Spanish heath. Weed infestation has now been reduced to a low level across most of this reserve.

Results from *Phytophthora cinnamomi* trials found *P. acerosa* was not susceptible to the pathogen in a glasshouse environment. It was advised that the health of wild plants continue to be monitored as the species' susceptibility status may change under certain conditions, especially if other stresses like drought are present.

Saving our Species 2020-2021 annual report card for Needle Geebung (*Persoonia acerosa*). For more information refer to the specific strategy in the Saving our Species program.