

Saving our Species 2017-2018 annual report card

Lasiopetalum longistamineum

Species attributes

Scientific name	<i>Lasiopetalum longistamineum</i>
NSW status	Vulnerable
Commonwealth status	Vulnerable
Management stream	Site-managed species



Photographer: Barry Collier

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	Mangoola; Mount Dangar (Boodles Creek)
Action implementation	4 of 5 management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$19,054 (\$14,854 cash; \$4,200 in-kind)
Partners	Glencore Australia; Office of Environment and Heritage

Management site 1: Mangoola

Local Government Area	Muswellbrook
Estimated species population size	1,000
Partners	Glencore Australia; Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The species population is inferred to be off track based on threat management being off track. The population trend is unknown at this time.

Monitoring

Monitoring metric	Species abundance
Monitoring result	In 2016-2017 (Year one), two monitoring plots were established within the site. All plots were re-surveyed in 2017-2018 (Year two), approximately 15 months after installation. Following a year of well below average rainfall, a slight increase in plant numbers within plots (from 30 individuals to 35) is explainable by the layering and rooting of branches, and the breaking of such branches during wind events. No new recruits from seed germination were evident.
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Glencore Australia	\$0	\$300
Office of Environment and Heritage	\$4,000	\$900

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Requires fire approximately every 10 years to promote recruitment, and no more frequently than 2-3 years.	Liaise with Glencore regarding land and fire management practices.	Yes
Requires fire approximately every 10 years to promote recruitment, and no more frequently than 2-3 years.	Liaise with Glencore regarding land and fire management practices and plan for ecological burn in subsequent years.	Partial implementation - dependent on other component

Site summary

Following a year of well below average rainfall, a slight increase in plant numbers within monitoring plots was observed. This is explainable by the layering and rooting of branches, and the breaking of such branches during wind events. No new recruits from seed germination were evident. A key threat operating on the management site continues to be an absence of fire. New threats highlighted in Year two are the impacts of ongoing drought (the 2017-2018 reporting year has been well below average) and grazing by rabbits, hares and possibly deer (exacerbated under drought conditions). A number of recommendations have been made to manage the species including: conducting an experimental ecological burn to monitor fire response and seed germination; additional targeted searches; install herbivore exclusion cages in areas around monitoring plots; and install motion detection cameras at selected sites. These recommendations will be added to the 2018-19 project plan. Continuing liaison with Glencore will occur regarding management of the species.

Management site 2: Mount Dangar (Boodles Creek)

Local Government Area	Muswellbrook; Upper Hunter
Estimated species population size	Between 2,000 and 5,000 plants
Partners	Office of Environment and Heritage

Population status

On track	On track (inferred)	Not on track (inferred)	Not on track	Not determined
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The species population is inferred to be off track based on threat management being off track. The population trend is unknown at this time.

Monitoring

Monitoring metric	Reproductive success / recruitment
Monitoring result	Three monitoring plots were established within the Boodles Creek population in May 2017 and were re-surveyed in June 2018. These plots were positioned to encompass observed habitat and density variations observed within this meta-population (dense lower slope, open valley flat, rocky stream bed). Since installation, there has been a significant drop in the general health and vigour of <i>Lasiopetalum longistamineum</i> individuals, largely attributable to the drought conditions experience during 2018.
Confidence in monitoring	High
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$10,854	\$3,000

Management actions

The following actions (including research and survey actions) are those identified as being required in financial year 2017-2018 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Current threats to this species are unknown, however populations may be susceptible to impacts resulting in habitat loss and degradation.	Undertake targeted surveys within Boodles and Eckfords Creeks	Yes
Goats known to browse the species, removing individuals and degrading habitat.	Aerial shoot of pest herbivores including goats	Yes
Weed infestation, particularly from bridal creeper and prickly pear, may reduce seedling recruitment and threaten the future persistence.	Undertake control on weed species impacting upon the <i>Lasiopetalum longistamineum</i> population	No - dependent on other component

Threat status

The following critical threats were monitored at this site during financial year 2017-2018.

Threat	Annual target	Threat status	Confidence in monitoring
Goats known to browse the species, removing individuals and degrading habitat.	Baseline data collection to inform future target setting	On track	Moderate
Weed infestation, particularly from bridal creeper and prickly pear, may reduce seedling recruitment and threaten the future persistence.	Map the distribution and density of weed species.	Baseline	Moderate

Site summary

A number of achievements have been made, incorporating actions on extent of occurrence, targeted survey, weed and pest control, fire management and ecological research. Targeted surveys involving ground truthing have consolidated existing records within an extent of occurrence of nearly three hectares for *Lasiopetalum longistamineum* and targeted searches in the Eckfords Creek catchment have also located additional stands. Three monitoring plots have been installed and baseline data collected along Boodles Creek. The distribution and density of weed species has been mapped across key areas of Mt Dangar, and motion detection cameras installed to monitor native and feral animal activity on both target species and surrounding vegetation. Aerial shooting of goats and other pest herbivores was also undertaken as a threat abatement measure. Below average rainfall received during the 2017-2018 reporting period (233 mm compared to 600 mm per year) has had a serious impact on the health, vigour and reproductive output of the species.