



SAVING OUR SPECIES

Epacris hamiltonii

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	Blue Mountains
Action implementation	1 (of 1) management action was fully or partially implemented as planned for the financial year.
Total expenditure	\$19,244 (\$11,403 cash; \$7,841 in-kind)
Partners	Environment, Energy and Science



Scientific name:
Epacris hamiltonii

NSW status:
Endangered

Commonwealth status:
Endangered

Management stream:
Site-managed species





Photo: Vanessa Richardson

Priority management site: Blue Mountains

Local government area:
Blue Mountains

Partners:
Environment, Energy and
Science

Population outcome

-  **On track**
-  **On track (inferred)**
-  **Not on track (inferred)**
-  **Not on track**

Monitoring

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

Monitoring metric	Species abundance
Annual target	Maintain a stable or increasing population of over 1000 individuals.
Long term target	Maintain abundance, flowering and recruitment at current levels including 5—7 years after fire events
Monitoring result	During monitoring in October 2020, 17—20 percent of plants were dead (most likely due to fire) and no recruitment was observed. At unburnt locations adult plants were flowering, while at burnt locations resprouting plants did not flower in 2020. A total of 667 seedlings were counted in three 1 m by 1 m quadrats at Henson Glen during May 2021. We can assume that similarly high levels of recruitment occurred in similar habitat across the fire affected areas of the site.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$11,403	\$7,841

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?
Weed invasion including blackberry.	Treat priority weeds in the Katoomba Creek catchment.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Weed invasion including blackberry.	Weed density is less than 10% at all monitoring sites.	On track
High frequency or very intense fire.	Post-fire recruitment increases known population by at least 50%.	On track
The species is susceptible to extinction via stochastic processes due to its small known population size.	Area of occupancy is maintained.	On track

Site summary

Species monitoring confirmed that much of the population was impacted by the 2019—20 bushfires. Of the fire-affected monitoring sites, all were assessed as having burnt at either high or extreme intensity. 17—20% of the adult plants appear to have been killed by the fire, with the remainder observed to be re-sprouting 10 months post-fire. Drought conditions prior to and immediately following the fire may have contributed to plant mortality. There was no evidence of post-fire recruitment in October 2021, but significant recruitment by April 2021 with up to 355 seedlings counted per m².

Weed density is less than 10% ground cover at all monitoring locations. As has been previously observed, no priority weeds or other weeds with potential to impact the *Epacris* populations were observed in or adjacent to the riparian areas along Greaves Creek adjacent to the surveyed Neates Glen sites. Recruitment of priority weeds along Katoomba Creek, particularly in riparian areas and adjacent alluviums, continues to occur, although abundance of these species has been significantly reduced as a result of the ongoing weed control program along that creek system. Seedlings of broom and one adult flowering plant (removed) were found scattered along the creek, particularly in alluviums, and seedlings were identified along the creek. Along the surveyed length of the creek, several small blackberries were recorded, but no Japanese honeysuckle, privet or montbretia were recorded. Sweet vernal grass is widely but patchily distributed along the creek, particularly in alluviums, but is not considered a threat to *Epacris* populations. The surveyed length of Govetts Creek was burnt in the backburn, weed seedling recruitment has occurred post-fire in riparian areas and adjacent alluviums and weed grasses such as sweet vernal grass are scattered across these areas. No adult woody weeds were observed to have escaped the fire, although it would be expected that established woody weeds such as blackberries, some rhizomatous grasses, and other species with underground regenerative structures, such as montbretia, will generally resprout where formerly present.

Saving our Species 2020-2021 annual report card for *Epacris hamiltonii*. For more information refer to the specific strategy in the Saving our Species program.