



## SAVING OUR SPECIES

# Araluen Zieria

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

<b>Management sites</b>	Bells Creek
<b>Action implementation</b>	1 (of 1) management action was fully or partially implemented as planned for the financial year.
<b>Total expenditure</b>	\$1,565 (\$65 cash; \$1,500 in-kind)
<b>Partners</b>	Environment, Energy and Science



**Scientific name:**  
*Zieria adenophora*

**NSW status:**  
Critically Endangered

**Commonwealth status:**  
Endangered

**Management stream:**  
Site-managed species

Photo: Jackie Miles

# Priority management site: Bells Creek





## Local government area:

Queanbeyan-Palerang Regional

## 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.*

<b>Monitoring metric</b>	Species abundance
<b>Annual target</b>	The 2020 count of 18 plants over 25 cm high does not decline by more than 10%. At least 300 of 2020 seedling recruits are surviving after 12 months.
<b>Long term target</b>	By 2026 there is a minimum of 50 reproductive plants in the upper subpopulation and a minimum of 100 reproductive plants in the lower subpopulation.
<b>Monitoring result</b>	Twenty two mature (>25 cm high) plants and 541 seedlings (12 months old and <25 cm high) counted.
<b>Scientific rigour of monitoring method</b>	High
<b>Conducted by</b>	Environment, Energy and Science

## Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$65	\$1,500

## 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?
Part of the population occurs on private land and part on Crown leasehold land. There is an inherent risk that possible future changes in land use/ownership could put survival of the population at additional risk.	Maintain contact with landholder and seek their ongoing cooperation in protecting the species and allowing access to the site.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Trampling, soil disturbance and removal of associated vegetation by goats and wallabies are ongoing threats both directly to individuals and to the habitat.	No signs of goats having been within the fenced areas.	On track
The species is susceptible to extinction via stochastic processes due to its small known population size and restricted distribution.	No significant decrease in the population size due to stochastic events such as drought.	On track
A severe wildfire may be a threat to this species by killing plants and increasing soil erosion on the steep slope on which the species grows.	No fire has impacted the population.	On track
Part of the population occurs on private land and part on Crown leasehold land. There is an inherent risk that possible future changes in land use/ownership could put survival of the population at additional risk.	No evidence of any land use activities that are adversely impacting the species.	On track

## Site summary

Favourable weather conditions since the recent severe drought broke in March 2020 has seen a halt to the steady and concerning decline of this species over recent years. The total number of mature plants (plants >25 cm high) has increased slightly from 18 in 2020 to 22 in 2021. Six of the 23 seedlings that were planted in 2016 remained alive in 2021 and these looked very healthy. Numbers had declined from 71 in 2017 to 47 in 2018, to 34 in 2019. This was a continuation of a slow and long-term decline since 1999. Most of the remaining established plants are in the 25–50 cm height category and there had been a notable lack of seedling recruitment for many years.

In response to the breaking of the drought in March 2020, there was a major germination event during autumn and winter 2020, with a total of several hundred very small (2–3 cm high) seedlings observed in both the upper and lower parts of the site. By May 2021, most of these seedlings had grown to between 5 and 15 cm in height and were thus more easily located and counted. The May census recorded a total of 541 seedlings (178 in the upper section of the site and 363 on the lower section of the site). It has been extremely encouraging to find that so many seedlings have survived the first 12 months since the recruitment event. It is expected that many of these will now be well established and will grow on to reproductive maturity. Until this new cohort of seedlings produces significant quantities of fresh seed, the situation for the species remains particularly precarious, as the current soil-stored seed reserves are likely to be highly depleted. A loss of the new cohort of plants without the presence of soil-stored seed as a back-up would leave the species at high risk of extinction. However, in the absence of a catastrophic event, it is expected that there will be a significant increase in the number of reproductively mature plants within the next few years and the population trend can be considered back on track.

There were no signs of feral goats having breached any of the fenced areas and no fence maintenance was required. The landowner remains supportive of the conservation project and in allowing access to the site. The landowner has also offered to maintain rainfall records for the site which will enable likely correlations between the species' population dynamics and the weather patterns to be investigated and to guide the need for watering seedlings if further enhancement plantings are undertaken.

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Saving our Species 2020-2021 annual report card for Araluen Zieria (*Zieria adenophora*). For more information refer to the specific strategy in the Saving our Species program.