



SAVING OUR SPECIES

Shapely 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

Management sites	Pambula
Action implementation	2 (of 3) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$1,040 (\$440 cash; \$600 in-kind)
Partners	Environment, Energy and Science



Scientific name:
Zieria formosa

NSW status:
Critically Endangered

Commonwealth status:
Endangered

Management stream:
Site-managed species





Photo: Jackie Miles

Priority management site: Pambula

Local government area:
Bega Valley

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	No decline in the 2020 count of 138 plants.
Long term target	Maintain at least 100 individuals >2 m high at the site and at least 100 plants across a range of size classes <2 m high.
Monitoring result	Total count of 294 plants: 155 x <20 cm; 30 x 20—50 cm; 22 x 50—100 cm; 42 x 1—2 m; 26 >2 m. This is a 113% increase on the 2020 count of 138 plants.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$440	\$600

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?
In 2017 many of the smaller plants were observed to have been browsed and/or damaged by native herbivores, most probably wallabies. In the past, browsing had not been observed to be a serious threat but the impact of this browsing has now become significant, particularly as the number of plants has declined.	Install individual wire mesh guards to protect selected plants in unfenced portion of the population from wallaby browsing. The larger section of the population was fenced in the 2019—20 financial year.	No - logistical delays
Potential for landholders to inadvertently trample seedlings and damage adult plants in proximity to house and garden footprint.	Maintain contact with landowners and seek their ongoing cooperation in protecting the <i>Zieria</i> population.	Yes
The site is on private land. The current owners of the largest portion of the population are highly supportive of protecting this species, however future owners of the property may not be as sympathetic to the protection of the species.	Maintain contact with landowners and seek their ongoing cooperation in protecting the <i>Zieria</i> population.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
In 2017 many of the smaller plants were observed to have been browsed and/or damaged by native herbivores, most probably wallabies. In the past, browsing had not been observed to be a serious threat but the impact of this browsing has now become significant, particularly as the number of plants has declined.	No significant browsing damage to the <i>Zieria</i> plants.	On track
The main threats to the survival of this species are 1) the small total population size, 2) the shortage of large, reproductively-mature plants, and 3) the extremely small area occupied by the species. These threats make this species highly susceptible to extinction through events such as wildfire, drought and severe browsing by native and non-native animals.	Seed collection not planned for the 2020—21 financial year as plants in poor condition due to recent drought.	Not assessed
Nutrients and sediment carried downstream from adjoining farmland have caused localised infections of mixed herbaceous weeds and exotic grasses.	Minimal (< 5%) weed cover within <i>Zieria</i> population.	On track
Potential for landholders to inadvertently trample seedlings and damage adult plants in proximity to house and garden footprint.	No trampling or other damage to <i>Zieria</i> habitat detected.	On track
The site is on private land. The current owners of the largest portion of the population are highly supportive of protecting this species, however future owners of the property may not be as sympathetic to the protection of the species.	No adverse impact to the <i>Zieria</i> plants due to unsympathetic management of the site.	On track
More than two-thirds of the mature population died as a result of the 1997-98 drought. The large number of seedlings at the site is encouraging, but survival rates may depend on continued favourable conditions and continuing low levels of browsing by wallabies and rabbits.	Less than 5% of population has died due to drought impacts.	On track

Site summary

As hoped, the good seasonal conditions experienced since the breaking of the drought in the Pambula area in June 2020 has led to the establishment of a substantial number (155) of new seedlings of the shapely *Zieria*. There were also no further deaths of plants present in June 2020. This has resulted in a welcome reversal in the steady decline of the population over the past several years, with the 2020 total population increasing from 138 plants to 294 in May 2021. This project has thus been assessed as back on track for 2020—21. Also, those plants that survived the last drought have put on vigorous new growth. The newly-constructed fence around the larger sub-population has been very successful in excluding wallabies and should allow the new cohort of seedlings to develop undamaged and also allow the existing mature plants to flower and seed well, providing at least average weather conditions prevail through 2021.

Competition from *Leptospermum* and *Kunzea* shrubs is clearly inhibiting the growth of *Zieria* on some parts of the site. A trial thinning of the competing *Kunzea* and *Leptospermum* shrubs is planned for the second half of 2021. The proposed guarding of a selection of plants within the smaller unfenced sub-population is also planned for the second half of 2021.

Both landholders remain highly supportive of the conservation project and protecting the shapely *Zieria*.

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