



## SAVING OUR SPECIES

# Spiked Rice-flower

2022-2023 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>	Narellan; Prospect Nature Reserve
<b>Action implementation</b>	2 (of 2) management actions were fully or partially implemented as planned for the financial year.
<b>Total expenditure</b>	\$99,786 (\$53,936 cash; \$45,850 in-kind)
<b>Partners</b>	Camden Council; Environment and Heritage Group; Greater Sydney Local Land Services; The Australian Botanic Garden Mount Annan



**Scientific name:**  
*Pimelea spicata*

**NSW status:**  
Endangered

**Commonwealth status:**  
Endangered

**Management stream:**  
Site-managed species

Photo: Jemma Lemmon





# Priority management site: Narellan

**Local government area:**  
Camden; Campbelltown

**Partners:**

Camden Council; Environment and Heritage Group; Greater Sydney Local Land Services; The Australian Botanic Garden Mount Annan

**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>	Percentage ground cover
<b>Annual target</b>	The average percentage cover of the species and the average percentage of adult plants showing signs of reproduction are not significantly lower than the 2021-22 averages across transects at the golf course (3.34% (± 2.63 SE)), provided average rainfall is received. The majority of plants are healthy. Baseline monitoring for the species is established in bushland previously supporting <i>Pimelea spicata</i> at Australian Botanic Gardens.
<b>Long term target</b>	The species averages at least 0.91% cover across transects, the percentage of all plants showing signs of reproduction averages 10.5% across transects, the majority of plants (90%) are healthy, and seedlings or juvenile plants average at least 0.5% across transects after ten years. Targets are set in the absence of droughts and assuming average rainfall.
<b>Monitoring result</b>	At Camden golf course, the percentage cover of the species averaged 4.69% (± 2.82 SE) across transects. The percentage cover value for the species was not significantly different to the 2021-22 average, although cover values were slightly higher in 2022-23. The percentage of adult plants showing signs of reproduction was not calculated, but both reproductive and non-reproductive adults were observed. No plants were classed as juveniles or seedlings, or as re-sprouting, dead, diseased or senescing, but some 'splotches' were observed on leaves of some plants. At Australian Botanic Gardens, two transects were established to monitor the species (and weeds). The percentage cover of the species averaged 2.48% (± 1.16 SE) across transects. The percentage of adult plants showing signs of reproduction was not calculated, but both reproductive and non-reproductive adults were observed. One plant was classed as re-sprouting. The remainder were mature plants, some of which displayed 'splotches'
<b>Scientific rigour of monitoring method</b>	Moderate
<b>Conducted by</b>	Environment and Heritage Group; Greater Sydney Local Land Services

## Investment

Participant	Cash	In-kind
Camden Council	\$0	\$24,300
Environment and Heritage Group	\$12,066	\$5,805
Greater Sydney Local Land Services	\$2,870	\$6,480
The Australian Botanic Garden Mount Annan	\$25,000	\$1,125

## Management actions

The following actions are those identified as being required in financial year 2022-2023 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Weeds including African olive, African boxthorn, <i>Lantana</i> , privets, green cestrum, blackberry, crofton weed, bridal creeper and exotic grasses pose an increasing threat to this species.	Undertake weed control in the northern part of 'the Triangle' and other areas managed by Greater Sydney Local Land Services at the golf course. Encourage weed control actions in the areas directly outside of the areas managed by Greater Sydney Local Land Services at the golf course. Undertake weed control in bushland previously supporting <i>Pimelea spicata</i> at Australian Botanic Gardens.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Weeds including African olive, African boxthorn, <i>Lantana</i> , privets, green cestrum, blackberry, crofton weed, bridal creeper and exotic grasses pose an increasing threat to this species.	Weeds are maintained at 'light' or are reduced to 'sparse' levels in weed management areas managed and funded by Greater Sydney Local Land Services and co-funded by SoS funds at the golf course. The total weed cover across transects at the golf course is not significantly higher than the 2021-22 average across transects (47.91% ( $\pm$ 16.01 SE)). Targets assume average rainfall. Baseline monitoring for weeds is undertaken in 'Conservation Woodland' at Australian Botanic Gardens.	On track

## Site summary

Monitoring actions were implemented at Camden golf course and monitoring transects were established at Australian Botanic Gardens as planned. Weed control works were implemented at Camden golf course and Australian Botanic Gardens, although there was less weed control work than planned at the golf course due to limited staff resources for managing contracts.

Where weed control works were implemented at Camden golf course, largely in the Camden Council bushcare zone and the area known as 'the Triangle', they were effective at maintaining weed cover at 2021-22 levels, that is at 'moderate' and 'sparse' levels, respectively. In the areas that did not receive weed control at the golf course, weed cover increased. The increased weed cover was reflected in data recorded from formal monitoring transects at the golf course, where weed cover averaged 48.21% ( $\pm 13.50$  SE) across transects. Weed covers were similar to those recorded in 2021-22. The increased weed cover at the golf course was likely a result of weed species responding to ongoing high rainfall in 2022-23 and reduced weed control effort in 2021-22 and 2022-23 relative to the years previous to 2021-22. Weed control works implemented at Australian Botanic Gardens were effective at reducing weed levels from 'moderate' levels prior to control to 'light' levels after control. Weed levels recorded at two new monitoring transects established at Australian Botanic Gardens averaged 20.94% ( $\pm 8.42$  SE) across transects.

The percentage cover of *Pimelea spicata* at Camden golf course was similar to previous years, with a trend for higher cover of the species in 2022-23 (4.69% ( $\pm 2.82$  SE) across transects). These results are likely related to the wet conditions since 2020-21, which encouraged growth of the species. The percentage cover of the species at Australian Botanic Gardens averaged 2.48% ( $\pm 1.16$  SE) across the two newly established monitoring transects.





Outside of the weed control and monitoring actions included in the project, additional work was undertaken at the site. This included the installation of 60m of bollards on the southern edge of Camden Council's bushcare zone at the golf course to protect *Pimelea spicata* habitat, which Greater Sydney Local Land Services (GS LLS) funded in 2021-22. It also included rabbit control at Australian Botanic Garden.

# Priority management site: Prospect Nature Reserve

**Local government area:**  
Blacktown

**Partners:**  
Environment and Heritage  
Group

## 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>	Percentage ground cover
<b>Annual target</b>	The average percentage covers of the species are not significantly lower than the 2021-22 averages across 'treatment (weeds)', 'nil treatment/control', and 'treatment (track)' transects (1.56% ( $\pm 0.93$ SE), 2.93% ( $\pm 1.72$ SE), and 0.05% ( $\pm 0.04$ SE) respectively). The percentages of adult plants showing signs of reproduction are not lower than the 2021-22 percentages across the three transect types as listed above. The majority of plants (95-100%) are healthy. Targets assume average rainfall.
<b>Long term target</b>	The species averages at least 3.12% cover across 'treatment (weed)' transects, 2.04% cover across 'nil treatment/control' transects, and 0.39% cover across 'treatment (track)' transects; the percentage of all plants showing signs of reproduction averages at least 32.27% across 'treatment (weed)' transects, 46.84% across 'nil treatment/control' transects, and 36% across 'treatment (track)' transects; the majority of plants (90%) are healthy; and seedlings or juvenile plants average at least 0.5% across 'treatment (weed)' transects and 'treatment (track)' transects after ten years. Targets are set in the absence of droughts and assuming average rainfall.
<b>Monitoring result</b>	The percentage cover of the species averaged 1.95% ( $\pm 0.98$ SE), 2.25% ( $\pm 1.31$ SE), and 0.024% ( $\pm 0.024$ SE) across 'treatment (weeds)', 'nil treatment/control', and 'treatment (track)' transects, respectively. These average covers were similar to values recorded in 2021-22. No species response to weed control was detected through analysis of data. Even so, graphed data showed a possible species response to weed control work undertaken in August, September and November 2022. The percentage cover of the species was higher across 'treatment (weeds)' transects in 2022-23 compared with 2021-22, but lower across 'nil treatment/control' transects in 2022-23 compared with 2021-22. The percentage of adult plants showing signs of reproduction was not calculated, but both reproductive and non-reproductive adults were observed. A small number of plants were recorded as juveniles. No plants were recorded as re-sprouting, dead, diseased or senescing, but some 'splotches' were observed on some plants.
<b>Scientific rigour of monitoring method</b>	Moderate
<b>Conducted by</b>	Environment and Heritage Group

## Investment

Participant	Cash	In-kind
Environment and Heritage Group	\$14,000	\$8,140

## Management actions

The following actions are those identified as being required in financial year 2022-2023 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Weeds including African olive, African boxthorn, <i>Lantana</i> , privets, green cestrum, blackberry, crofton weed, bridal creeper and exotic grasses pose an increasing threat to this species.	Undertake weed control within the weed control zone.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Weeds including African olive, African boxthorn, <i>Lantana</i> , privets, green cestrum, blackberry, crofton weed, bridal creeper and exotic grasses pose an increasing threat to this species.	Weeds are maintained at 'light' levels in the original weed control zone and are maintained in the expanded weed control zone. The total weed cover across 'treatment (weeds)' transects is not significantly higher than the 2021-22 average (33.55% ( $\pm$ 6.83 SE)). Targets assume average rainfall.	On track
Slashing along fire trials causing damage to the species	There are no direct impacts on the species as a result of track slashing activities.	On track

## Site summary

Species and weed monitoring was undertaken at the site as planned. Weed control work was also undertaken and included effort that was not expended in 2021-22 due to access issues caused by heavy rain. No additional green posts were installed to indicate the locations of the species to reduce the impacts of slashing and track maintenance. The number of green posts on site was considered to be adequate.

Weeds were recorded in overall lower covers across all transects compared with 2021-22 and were similar to 2020-21 averages.

The percentage covers of the species across the site were similar to values recorded in 2021-22. No species response to weed control was detected through analysis of data. Even so, graphed data showed a possible species response to weed control undertaken in the period August to November 2022. The percentage cover of the species was higher across 'treatment (weeds)' transects in 2022-23 compared with 2021-22, but lower across 'nil treatment/control' transects in 2022-23 compared with 2021-22. The percentage of adult plants showing signs of reproduction was not calculated, but both reproductive and non-reproductive adults were observed. A small number of plants were recorded as juveniles. No plants were recorded as re-sprouting, dead, diseased or senescing, but some 'splotches' were observed on leaves of some plants.

Consideration should be given in future years to manage the entire site for weeds and re-design species and weed monitoring.

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Saving our Species 2022-2023 annual report card for Spiked Rice-flower (*Pimelea spicata*). For more information refer to the specific strategy in the Saving our Species program.