



## SAVING OUR SPECIES

# Curly-bark Wattle

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>	Gundabooka National Park; Monia Gap Station; Shepherd's Hill; Yathong Nature Reserve
<b>Action implementation</b>	5 (of 5) management actions were fully or partially implemented as planned for the financial year.
<b>Total expenditure</b>	\$34,821 (\$25,250 cash; \$9,571 in-kind)
<b>Partners</b>	Environment, Energy and Science; The Australian Botanic Garden Mount Annan



**Scientific name:**  
*Acacia curranii*

**NSW status:**  
Vulnerable

**Commonwealth status:**  
Vulnerable

**Management stream:**  
Site-managed species





Photo: Lachlan Copeland

# Priority management site: Gundabooka National Park

**Local government area:**  
Bourke

**Partners:**  
Environment, Energy and Science; 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>	Species abundance
<b>Annual target</b>	Maintain 150 adult plants (with 10% seasonal variation for semi-arid climate) within fenced enclosures.
<b>Long term target</b>	A 20% increase in abundance of <i>Acacia curranii</i> from 2018–19 baseline levels after 20 years within grazing animal exclosure.
<b>Monitoring result</b>	There were 150 adult plants, 217 juvenile plants, 22 seedlings and 2 senescent within the enclosure. Three plants were recorded within the 10 monitoring plots (2 m x 100 m).
<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	\$12,475	\$8,293
The Australian Botanic Garden Mount Annan	\$0	\$350

## 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?
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	Maintain cameras to monitor integrity of fencing and herbivore incursion.	Yes
Lack of knowledge	Undertake surveys within potential habitat in Gundabooka National Park for new population of <i>Acacia curranii</i> .	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	Nil feral goat incursions within fenced enclosures.	On track
Lack of knowledge	Identify additional potential sites and undertake surveys to identify additional populations.	On track

## Site summary





The SoS monitoring of the population of *Acacia curranii* within the fenced enclosure recorded 22 seedlings (8 additional seedlings to 2019–20 monitoring all located within the recently completed fenced area), 217 juvenile plants, 150 adult plants and 2 senescent plants. Many adult plants had flowered and had either dropped seed or were filling seed pods. Of these adult plants, 270 were collected and will be used for seed banking and germination trials. There was no evidence within the fenced area of browsing on plants, and camera monitoring only recorded native species, including one eastern grey kangaroo within the enclosure. Transects and broader searches across the landscape, where the species had been previously recorded, were undertaken within the limitations of weather and remoteness, and no additional plants were located. Goat scat counts had reduced by approximately 30% in October 2020 compared to 2019–20 and may be attributed to a lack of open water and food resources on the mountain. Aerial vertebrate pest control removed 515 goats from the mountain.

# Priority management site: Monia Gap Station

**Local government area:**  
Bland; Carrathool; Lachlan

**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>	Greater surviving population inside exclosure fencing than outside with population maintained within a 10% range of 2018–19 records.
<b>Long term target</b>	A 10% increase in abundance of mature <i>Acacia curranii</i> after 20 years within grazing animal exclosure. To record an increase in <i>A. curranii</i> abundance above 2018 monitoring levels outside the exclosure.
<b>Monitoring result</b>	For the 2 quadrats inside grazing animal exclosure, plant abundance was 340 (Q1) and 142 (Q2). For the 2 quadrats outside the exclosure open to grazing, plant abundance was 5 (Q3) and 87 (Q4). Combined plant abundance was therefore 482 inside exclosure compared to 92 outside.
<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	\$4,400	\$928

## 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?
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	All holes in fence repaired to exclude grazing animals.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	Nil goat incursions into the fenced area.	On track

## Site summary





All actions proposed for 2020–21 were successfully implemented. There were regular rainfall events throughout much of the reporting period, which allowed for sustained recovery of plants from the impacts of the recent drought, with all plants being healthy and green. The *Acacia curranii* population and other vegetation inside the grazing animal exclosure fence continue to be in better condition than areas outside the fence. Plant numbers within the exclosure decreased slightly from last year, but the percentage cover of curly-bark wattle remained high at 75%, while numbers outside the exclosure remained the same but at a much lower cover of 20%. Continued goat control on the property assisted the growth of plants over the year, with more seedlings recorded outside the exclosure than inside. However, the overall degree of browsing damage to plants outside the exclosure has started to increase again from the low drought levels.

# Priority management site: Shepherd's Hill

**Local government area:**  
Cobar

**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>	Population stable or increasing from previous surveys.
<b>Long term target</b>	A 10% increase in <i>Acacia curranii</i> abundance over 2018 levels after 20 years.
<b>Monitoring result</b>	There were 200 cacti on monitoring transects.
<b>Scientific rigour of monitoring method</b>	Low
<b>Conducted by</b>	Environment, Energy and Science

## Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$2,915	\$0

## 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?
<i>Opuntia</i> species invasion impacting integrity and condition of population	All <i>Opuntia</i> species sprayed according to the control program.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
<i>Opuntia</i> species invasion impacting integrity and condition of population	Establish an annual monitoring program to ensure early detection of weed re-emergence or new infestation. Zero <i>Opuntia</i> presence within <i>Acacia curranii</i> population area after 10 years.	On track

## Site summary





The *Opuntia* cactus species stand that partly surrounds the curly-bark wattle population has been reduced this year. The degree of reduction will allow ultimate eradication to be possible in the near future if control efforts are maintained. Untimely rainfall prevented the monitoring of *Acacia curranii* at the site.

# Priority management site: Yathong Nature Reserve

**Local government area:**  
Carrathool; Cobar

**Partners:**  
Environment, Energy and  
Science

## Population outcome

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

The species population is inferred to be on track based on threat management being on track. The population trend is unknown at this time.

## 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>	Evidence of germination inside exclosures. Reduction of mature individuals in dense thinning stands.
<b>Long term target</b>	A 10% increase in <i>Acacia curranii</i> abundance over baseline levels after 20 years.
<b>Monitoring result</b>	Approximately 25,000 plants
<b>Scientific rigour of monitoring method</b>	Low
<b>Conducted by</b>	Environment, Energy and Science

## Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$5,460	\$0

## 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?
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	Check and maintain fences.	Yes



## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Feral goats; grazing, browsing and horning of adult plants and seedlings, habitat erosion; feral goats occur in all known NSW sites.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate.	On track

## Site summary

The fences are complete, and regeneration is occurring within the grazing animal exclosures. While the feral goat catch per unit increased from last year, it is expected that there will be an annual variance in goat numbers due to the population responding to weather and resource conditions. The goat numbers are still far lower than before the control began. Untimely rainfall prevented the monitoring of *Acacia curranii* at the site this year.

---

Saving our Species 2020-2021 annual report card for Curly-bark Wattle (*Acacia curranii*). For more information refer to the specific strategy in the Saving our Species program.