



SAVING OUR SPECIES

Greater Stick-nest Rat

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	AWC - Mallee Cliffs National Park
Action implementation	4 (of 4) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$0 (\$0 cash; \$0 in-kind)
Partners	Australian Wildlife Conservancy (AWC); Environment, Energy and Science



Scientific name:
Leporillus conditor

NSW status:
Extinct

Commonwealth status:
Vulnerable

Management stream:
Iconic species





Photo: David Sickerdick

Priority management site: AWC - Mallee Cliffs National Park

Local government area:
Wentworth

Partners:
Australian Wildlife Conservancy

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	Mortality
Annual target	Greater than 50% survival of 40 founders.
Long term target	Self-sustaining population of 1710 individuals within fenced enclosure.
Monitoring result	Radio collars were fitted for 23 out of 40 founders when released in September 2020 to monitor survival over the first 3 months of translocation. In that period, 8 individuals were confirmed deceased, succumbing mainly to native predators. The minimum survival rate after 3 months was 52%, with a potential maximum of 74% based on the potential survival of individuals that could not be accounted for due to collars falling off from grooming or chewing by other rats. A further 38 individuals were released in May 2021, of which 20 were collared. As this occurred at the end of the reporting period, an estimate of survival could not be provided within the reporting period.
Scientific rigour of monitoring method	Moderate
Conducted by	Australian Wildlife Conservancy
Monitoring metric	Reproductive success/recruitment
Annual target	Translocation of 40 founders into the fenced enclosure.
Long term target	Self-sustaining population of 1710 individuals within fenced enclosure.
Monitoring result	In September 2020, 40 founders were translocated, and in May 2021, a further 38 founders were translocated. In total, 78 greater stick-nest rats have been reintroduced into the enclosure, with a further release planned early in the next reporting period. It is too early to provide reproductive success/recruitment data as it has been less than 12 months since reintroduction.
Scientific rigour of monitoring method	Moderate
Conducted by	Australian Wildlife Conservancy

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?
Inappropriate fire regime.	Implement planned fuel reduction burns consistent with fire management strategy	Yes
Inbreeding depression and loss of genetic diversity.	Not required - samples will not be collected until 5 years post-release (2025–26).	Yes
Predation by introduced predators such as cats and foxes.	Implement incursion response strategy if incursion detected	Yes
Predation by introduced predators such as cats and foxes.	Undertake fence checks 2–3 times weekly and repair as necessary.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Inbreeding depression and loss of genetic diversity.	Not required - analysis will not be undertaken until 5 years post-release (2025–26).	On track
Predation by introduced predators such as cats and foxes.	Zero incursions of foxes and cats into fenced enclosure.	On track
Inappropriate fire regime.	No large-scale wildfire within reintroduction areas. Fire frequency and fuel loads maintained as per management strategy thresholds.	On track

Site summary

2020–21 has been a productive year with the successful reintroduction of 78 greater stick-nest rats over 2 separate release events. Of the initial 40 founders released in September 2020, 23 were fitted with radio collars for the first 3 months to monitor survival. After 3 months, the survival rate was at least 52% and potentially up to 74% of all individuals that lost collars survived. Collars appeared to be lost from grooming or chewing by other rats. Fatalities recorded were largely the result of native predators. Follow up monitoring of the initial cohort at 6 months post-release, using live trapping, found that the bodyweight of captured animals was within an acceptable range. No adverse health conditions or signs of disease were detected in the individuals observed. This provided confidence to proceed with further release events. A second release of 38 individuals, including 20 collared animals was completed in May 2021. A third release is planned early in the next reporting period.

Fence checks were undertaken regularly, 3–4 times per week. Two echidna diggings under the fence skirt were detected and rapidly repaired. To detect footprints from feral cats and foxes inside the fence – which would indicate an incursion – 73 km of management tracks were dragged monthly. In addition, Australian Wildlife Conservancy (AWC) has 60 remote cameras deployed in the fenced area that are checked monthly. No signs of feral cat or fox incursion were detected. AWC coordinates with NSW National Parks and Wildlife Service (NPWS) in fire preparedness training and maintains 2 fire fighting vehicles and trained staff on site. AWC partners with NPWS to undertake fuel reduction burns outside the fence when conditions are suitable to minimise the risk of fire impacting the enclosure. Fifty hectares was burnt during 2020-21. The risk of wildfire is currently low.

Saving our Species 2020-2021 annual report card for Greater Stick-nest Rat (*Leporillus conditor*). For more information refer to the specific strategy in the Saving our Species program.