



SAVING OUR SPECIES

Eucalyptus sp. Cattai

2018-2019 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	The Hills Shire
Action implementation	4 (of 5) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$48,075 (\$30,000 cash; \$18,075 in-kind)
Partners	Office of Environment and Heritage; The Australian Botanic Garden (Mount Annan); The Australian Botanic Garden Mount Annan; The Hills Shire Council



Scientific name:
Eucalyptus sp. Cattai

NSW status:
Critically Endangered

Commonwealth status:
Critically Endangered

Management stream:
Site-managed species

Photo: Barry Collier





Priority management site: The Hills Shire

Local government area:
Hornsby; The Hills Shire

Partners:

Office of Environment and Heritage; The Australian Botanic Garden (Mount Annan); The Australian Botanic Garden Mount Annan; The Hills Shire Council

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	Condition of individuals
Annual target	Habitat remains in good condition, all individuals of <i>Eucalyptus sp. Cattai</i> being monitored remain, over half of the plants being monitored are healthy, and the percentage of all plants showing signs of reproduction is at least 38%.
Long term target	To ensure all individuals being monitored remain and over half are healthy after ten years.
Monitoring result	All monitored individuals of <i>Eucalyptus sp. Cattai</i> remained, over half of the monitored plants were healthy, and 43% of plant showed signs of reproduction. There was also a qualitative assessment which found that habitat remained in good condition.
Scientific rigour of monitoring method	Moderate
Conducted by	Office of Environment and Heritage

Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$30,000	\$13,275
The Australian Botanic Garden Mount Annan	\$0	\$2,800
The Hills Shire Council	\$0	\$2,000

Management actions

The following actions are those identified as being required in financial year 2018-2019 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Poor recruitment and a restricted population size.	Undertake germination trials for seeds collected.	Yes
Poor recruitment and a restricted population size.	Undertake genetic analysis to determine diversity levels in the adult population and in seedlings, and if the species is suffering from inbreeding or outbreeding depression. Determine a translocation strategy based on results on genetic analysis.	Conducted, but not as planned
Risk of too frequent or too intense fires inhibiting growth or reproduction.	Check the species' fire regime requirements and liaise with the Rural Fire Service to ensure any burns planned in the management site consider the species' fire requirements.	No (logistical delays).
Urban and rural residential development, infrastructure maintenance, bushfire hazard control.	Approach at least one landholder to discuss entering into a voluntary management agreement.	Yes
Urban and rural residential development, infrastructure maintenance, bushfire hazard control.	Liaise with landholders and at least one major land manager to prevent clearing of the species.	Conducted, but not as planned

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Urban and rural residential development, infrastructure maintenance, bushfire hazard control.	The extent of disturbance remains at a similar or lower level to that observed in 2016-17.	On track
Risk of too frequent or too intense fires inhibiting growth or reproduction.	To measure the number of plants germinating, in the event a fire occurs.	On track
Poor recruitment and a restricted population size.	More than one plant has converted flowers into fruits between the spring and summer surveys, and at least 38% of all plants show signs of reproduction.	Not detectable

Site summary

The majority of actions were implemented as planned. Post-fire monitoring was not undertaken as there was no fire, and liaison with major land managers will be undertaken next financial year.

Monitoring of the species and threats found that the species' habitat remained in good condition, all monitored individuals of *Eucalyptus sp. Cattai* remained, over half of the monitored plants were healthy, and 43% of plant showed signs of reproduction. Seeds collected from the species were grown to seedling stage under laboratory conditions with little difficulty demonstrating that seeds are viable and germination requirements were not complex. The research action involving the collection of samples from adult plants and seedlings for genetic analysis was undertaken in collaboration with the Royal Botanic Gardens and Domain Trust and with assistance from The Hills Shire Council. Genetic analysis and environmental niche modelling was delayed, so results are not yet available. Results will be available in 2019-20 and will inform the selection of a suitable recipient site and the development of a translocation strategy to be included in the translocation plan.

A management agreement was developed with a landowner. Although no formal agreement was reached, stakeholder liaison will continue in 2019-20 to ensure positive outcomes for the species.

Saving our Species 2018-2019 annual report card for *Eucalyptus sp. Cattai*. For more information refer to the specific strategy in the Saving our Species program.