



## SAVING OUR SPECIES

# Kangaloon Sun Orchid

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

<b>Management sites</b>	Butlers Swamp; Molly Morgans Swamp
<b>Action implementation</b>	4 (of 4) management actions were fully or partially implemented as planned for the financial year.
<b>Total expenditure</b>	\$15,943 (\$6,343 cash; \$9,600 in-kind)
<b>Partners</b>	Office of Environment and Heritage; The Australian Botanic Garden (Mount Annan); The Australian Botanic Garden Mount Annan



**Scientific name:**  
*Thelymitra kangaloonica*

**NSW status:**  
Critically Endangered

**Commonwealth status:**  
Critically Endangered

**Management stream:**  
Site-managed species

Photo: Gavin Phillips





# Priority management site: Butlers Swamp

**Local government area:**  
Wingecarribee

**Partners:**

Office of Environment and Heritage; The Australian Botanic Garden (Mount Annan); 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>	More than one flowering individual observed.
<b>Long term target</b>	Species present in swamp in 50 years.
<b>Monitoring result</b>	Six flowering individuals.
<b>Scientific rigour of monitoring method</b>	High
<b>Conducted by</b>	Office of Environment and Heritage

## Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$3,172	\$4,000
The Australian Botanic Garden Mount Annan	\$0	\$800

## 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?
Future drying out of swamps from climate change is a potential threat	Report any abnormal drying of swamp habitat.	Yes
Small population size - low levels of genetic diversity and restricted distribution	Work with Mt Annan Botanic Gardens to hand pollinate flowers, collect seed and trial propagation of the species to develop an <i>ex situ</i> population.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Small population size - low levels of genetic diversity and restricted distribution	Trial hand pollination to increase seed set. Collect some seed for seed banking and germination trials to develop an <i>ex situ</i> population	On track
Future drying out of swamps from climate change is a potential threat	Swamp habitat remains suitable habitat for the species.	On track

## Site summary

The flowering population was larger than previous years, however is still small. Seed production was greater than previous years largely as a result of hand pollination. Seed capsules have been collected and propagation is in progress to develop an *ex situ* population.





# Priority management site: Molly Morgans Swamp

**Local government area:**  
Wingecarribee; Wollongong

**Partners:**

Office of Environment and Heritage; The Australian Botanic Garden (Mount Annan); 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>	More than one flowering individual observed
<b>Long term target</b>	Species present in swamp in 50 years.
<b>Monitoring result</b>	18 flowering individuals.
<b>Scientific rigour of monitoring method</b>	High
<b>Conducted by</b>	Office of Environment and Heritage

## Investment

Participant	Cash	In-kind
Office of Environment and Heritage	\$3,172	\$4,000
The Australian Botanic Garden Mount Annan	\$0	\$800

## 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?
Future drying out of swamps from climate change is a potential threat	Report any abnormal drying of swamp habitat.	Yes
Small population size - low levels of genetic diversity and restricted distribution	Work with Mt Annan Botanic Gardens to hand pollinate flowers, collect seed and trial propagation of the species to develop an <i>ex situ</i> population.	Yes

## Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Small population size - low levels of genetic diversity and restricted distribution	Trial hand pollination to increase seed set. Collect some seed for seed banking and germination trials to develop an <i>ex situ</i> population	On track
Future drying out of swamps from climate change is a potential threat	Swamp habitat remains suitable habitat for the species.	On track

## Site summary

The flowering population at Molly Morgan Swamp was larger than previously recorded over the last three years but is still small. Working in collaboration with Mount Annan Botanic gardens we were successful in increasing seed production largely as a result of hand pollination. Seed capsules and soil samples have been collected and propagation is in progress to develop an *ex situ* population. This has a positive flow-on for the seed bank at the site and also for collection of seed for seed banking and propagation to develop an *ex situ* population. A scientific manuscript has been accepted for publishing by the Journal *Cunninghamia* in relation to the hand-pollination studies.

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Saving our Species 2018-2019 annual report card for Kangaloon Sun Orchid (*Thelymitra kangaloonica*). For more information refer to the specific strategy in the Saving our Species program.