



SAVING OUR SPECIES

North Brother 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

Management sites	Dooragan; Middle Brother
Action implementation	4 (of 4) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$8,607 (\$5,502 cash; \$3,105 in-kind)
Partners	Environment, Energy and Science

Scientific name:
Acacia courtii

NSW status:
Vulnerable

Commonwealth status:
Vulnerable

Management stream:
Site-managed species





Photo: Caroline Blackmore

Priority management site: Dooragan

Local government area:
Port Macquarie-Hastings

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.

Monitoring metric	Species abundance
Annual target	Measure changes in abundance, germination and demography over time.
Long term target	Maintain or increase species abundance over time.
Monitoring result	29.3 individuals plot-1 (total 88 individuals; range 14-44; N = 3 plots).
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$3,312	\$1,710

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 disturbance regimes, particularly fire.	Enter new records in BioNet and relevant databases.	Yes
<i>Lantana</i> encroaching the <i>Acacia courtii</i> habitat.	Reduce <i>Lantana</i> density to <10% cover within identified weed management zones.	Yes
Road construction.	Liaise with Port Macquarie-Hastings Council to ensure no inadvertent damage to plants away from immediate roadside during road maintenance or other council activities along Captain Cook Bicentennial Drive. Some loss of seedlings along roadside inevitable during road maintenance but insignificant effect on population at site, which largely above road and provides ongoing seed source for road edges below.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Inappropriate disturbance regimes, particularly fire.	Monitor condition of trees and any germination post-fire in event of fire.	On track
Killing or damaging trees through illegal stripping of bark.	Quantitative determination of loss of or damage to trees.	On track
<i>Lantana</i> encroaching the <i>Acacia courtii</i> habitat.	Measure reduction in weed density over time	On track
Road construction.	Threat does not eventuate.	On track

Site summary

Repeat surveys of 3 monitoring plots established in 2017–18, including one plot originally established in 2007–08, were conducted in 2021. Based on the current survey, the population structure has changed little since the 2017–18 survey. It is characterized by a predominance of aging trees with little recruitment of younger plants into the population, which was to be expected given the absence of any significant disturbance events (e.g. fire) since the previous survey. However, a cohort of younger plants were recorded in plots NBRO2 and NBRO3. This was likely a result of the prolonged drought up to December 2019, which led to the mortality of some mature plants, followed by above-average rainfall in early 2020. There has been no significant change in estimated total population within this SoS site despite these plot-based changes.

Weed control action undertaken at plot NBR02 (close to Bicentennial Captain Cook Drive) has resulted in significant reduction in cover of *Lantana* in the areas of the site that were treated. However, whereas weeds were not considered a threat at the other two monitoring plots in 2017–18, there is significant weed encroachment at and around plot NBR03, on the eastern fall of North Brother.

Priority management site: Middle Brother





Local government area:

Mid-Coast; Port Macquarie-Hastings

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.

Monitoring metric	Species abundance
Annual target	Measure changes in abundance, germination and demography over time.
Long term target	Maintain or increase species abundance over time
Monitoring result	Mean of 14.8 individuals plot ⁻¹ (total 74 individuals; range 1–37; N = 5 plots)
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$2,190	\$1,395

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 disturbance regimes, particularly fire.	Enter new records in BioNet and relevant databases.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Inappropriate disturbance regimes, particularly fire.	Site currently within acceptable fire intervals for species and no action required.	On track
Killing or damaging trees through illegal stripping of bark.	Conduct a minimum of one survey of site to evaluate level of loss of or damage to plants within the site.	On track
<i>Lantana</i> encroaching the <i>Acacia courtii</i> habitat.	Visual detection of emerging threats near target species in conjunction with flora monitoring	On track
Creation of disturbance which is both beneficial and negative. Can be beneficial when it creates an environment for them to germinate.	Detect extent and cause of direct disturbance in conjunction with flora monitoring and consider manual disturbance trial	On track
Road construction.	Detect extent of any disturbance in conjunction with flora monitoring.	On track

Site summary

Repeat surveys of 5 monitoring plots established in 2017–18, including 2 plots originally established in 2007–08, were conducted in 2021. Based on the current survey, the population structure has changed little since the 2017–18 survey. It is characterized by a predominance of aging trees with little recruitment of younger plants into the population, which was to be expected given the absence of any significant disturbance events (e.g. fire) since the previous survey. There has been no significant change in the estimated total population within this SoS site despite these plot-based changes. There has been a low-level incursion of *Lantana* at plot MBRO2 (Devils Hole) which we will recommend for treatment in future years.

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