



SAVING OUR SPECIES

Hairy Quandong

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	Couchy Creek; Inner Pocket Nature Reserve; Main Arm; Mooball National Park; Natural Lane; Translocation Site
Action implementation	11 (of 11) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$34,745 (\$25,345 cash; \$9,400 in-kind)
Partners	Environment, Energy and Science; NSW Biodiversity Conservation Trust



Scientific name:
Elaeocarpus williamsianus

NSW status:
Endangered

Commonwealth status:
Endangered

Management stream:
Site-managed species





Photo: Dianne Brown

Priority management site: Couchy Creek

Local government area:
Tweed

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	All plants in plot remeasured. >80% survival of 19 plants counted in 2019–20.
Long term target	To maintain or increase the baseline number of 19 stems within the permanent monitoring plot (+/- 10%)
Monitoring result	17 plants in plot; 15 x <5m, 1 x >5–10 m, 1 x >10 m
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$740	\$200

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?
Current or potential future land management practices do not support conservation.	Liaise with landholder about the current status of the species at the site and provide up to date information.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Current or potential future land management practices do not support conservation.	Monitor 2 ha habitat for condition and condition remains at <5% weed cover.	On track

Site summary





Site revisited and plot re-established due to difficulty locating original plot corner stakes. A small decline in population from 19 to 17 probably is due to readjustment of plot location as there is no evidence of any threats at the site. The condition remains very good with very low levels of weed cover, although there is some giant devil's fig at the site.

Priority management site: Inner Pocket Nature Reserve

Local government area:
Byron; Tweed

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	Population remains within 10% of previous year's count of 30 plants.
Long term target	To maintain or increase the baseline number of 30 stems within the permanent monitoring plot (+/- 10%)
Monitoring result	Population has increased slightly to 33 plants, therefore population target has been met.
Scientific rigour of monitoring method	Moderate
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$8,270	\$800

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?
Infestation of habitat by weeds.	Conduct 14 days bush regeneration/ weed control in the vicinity of hairy quandong population.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Infestation of habitat by weeds.	Weed density is below 10% cover within 50 m of hairy quandongs.	On track
Fire.	Opportunistic only if fire occurs.	Not assessed

Site summary





Weed regrowth was reduced significantly this year, allowing continued expansion into habitat adjacent to hairy quandongs. Three rounds of weed control were carried out during the year, which included 2 rounds of follow-up spot spraying and one round of hand weeding and cut and paint. This was done on tobacco bush, *Lantana*, broad-leaved *Paspalum*, crofton weed, blue billy-goat weed, thickhead, mistflower, camphor laurel seedlings and silver-leaved *Desmodium*. Soil weed seed bank significantly depleted. Population count indicates a small increase from 30 to 33 plants.

Priority management site: Main Arm

Local government area:
Byron

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	Population to remain within 5% of 2017 results of 81 stems.
Long term target	To maintain the number of stems within the permanent monitoring plot at 81 stems (+/- 10%).
Monitoring result	There were 81 stems which is the same as 2017 results.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$3,515	\$200

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?
Browsing and trampling by cattle.	No cattle access habitat areas.	Yes
Current or potential future land management practices do not support conservation.	Liaise with landholder and provide updates on project and species status.	Yes
Infestation of habitat by weeds.	Undertake 5-person days bush regeneration/weed control.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Infestation of habitat by weeds.	Weed density to remain at low cover abundance (<10%) within 40 m of hairy quandong population.	On track
Browsing and trampling by cattle.	Grazing does not impact upon hairy quandong population.	On track
Current or potential future land management practices do not support conservation.	Land use practices do not have a negative impact on hairy quandong populations.	On track

Site summary





Weed cover levels remain very low, and the site is in good condition. Hairy quandong plants remain healthy at the site, with a stable population of 81 stems. This species grows very slowly, so little change is expected on an annual basis.

Priority management site: Mooball National Park

Local government area:
Tweed

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	Plants in plot remain within 10% of previous year's count of 23 stems.
Long term target	To maintain or increase the baseline number of stems of 23 within the permanent monitoring plot (+/- 10%).
Monitoring result	29 plants in plot, increase of 6 plants.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$8,270	\$400

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?
Fire.	Suppress any fires in the reserve so they do not impact upon the species.	Yes
Infestation of habitat by weeds.	Conduct 14 days bush regeneration/weed control.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Infestation of habitat by weeds.	Weed densities decrease in treated areas.	On track
Fire.	No fire impacts at site. If fire does occur, implement post-fire monitoring	Not assessed

Site summary





Follow-up weed control was undertaken over 6.22 ha hairy quandong patches. Native cover is well established in previously-treated areas. Primary *Lantana* work undertaken uphill from original work. Wet conditions are expected to cause a flush of weeds in open areas and edges of the forest. Still, the hairy quandong population's core and surrounding vegetation are in very good condition, and weed threat should remain minimal. The hairy quandong population is currently 29 stems at this site and remains healthy.

Priority management site: Natural Lane

Local government area:
Byron

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	Population remains within 10% of the 15 stems recorded in 2019.
Long term target	To maintain or increase the baseline number of 6 stems at the site (+/- 10%).
Monitoring result	Population is stable with plants remaining at 15.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$1,285	\$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?
Infestation of habitat by weeds.	Conduct one day bush regeneration.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Infestation of habitat by weeds.	Weed cover remains below 10% within 50 m of hairy quandong population.	On track
Current or potential future land management practices do not support conservation.	No reduction in habitat quality.	On track

Site summary





Hairy quandong plants remain healthy at the site, with no loss of individuals or recruitment evident. The population is stable, with plants and stems remaining at 15. Low levels of weed density remain. Annual weed maintenance across approximately 1 ha is necessary even though weed levels are minimal. Landholders are interested and supportive of the project.

Priority management site: Translocation Site

Local government area:
Byron

Partners:
Environment, Energy and
Science; NSW Biodiversity
Conservation Trust

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	Growth rate
Annual target	80% of hairy quandong translocated plants increase in height and 80% remain healthy compared with previous year.
Long term target	By 2030, 70 hairy quandong plants are alive. By 2030, there are representatives of at least 7 genets at each planting location. Flowering and fruiting occurs by 2030.
Monitoring result	83% of plants increased in height. 100% survival and 97% healthy.
Scientific rigour of monitoring method	High
Conducted by	Environment, Energy and Science

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$3,265	\$2,800
NSW Biodiversity Conservation Trust	\$0	\$5,000

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?
Current or potential future land management practices do not support conservation.	Liaise with landholders to provide details on the project's current status and encourage conservation agreements where eligible.	Yes
Infestation of habitat by weeds.	Undertake a minimum of 2 maintenance visits to translocation sites. Weed, mulch, fertilise and water plants if required.	Yes
Only very small, fragmented populations exist with limited genetic diversity.	Collect cuttings from new populations or from those genets which are in low numbers or absent from current planting sites.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Infestation of habitat by weeds.	Weed levels below 10% within 10m plantings.	On track
Only very small, fragmented populations exist with limited genetic diversity.	Monitoring event during one flowering period.	On track
Current or potential future land management practices do not support conservation.	No degrading landuse practices within 10 m of plantings.	On track

Site summary

Planted hairy quandongs flowered and fruited for the first time at several sites this year. Most plants are healthy and growing well, although many continue to be very slow-growing. Some plant losses were replaced to ensure full sites are represented at each location and are still small; however, some plants that are now several years old are over 5 m tall. Some fruit from translocated plants were sent to the Australian Seed Bank for viability testing and potential storage. Additional cuttings were taken and sent to a nursery for propagation. This includes genets that have previously not been represented in the plantings.

Saving our Species 2020-2021 annual report card for Hairy Quandong (*Elaeocarpus williamsianus*). For more information refer to the specific strategy in the Saving our Species program.