

Australian Capital Territory

Nature Conservation (Tuggeranong Lignum) Conservation Advice 2019

Notifiable instrument NI2019–712

made under the

Nature Conservation Act 2014, s 90C (Conservation advice)

1 Name of instrument

This instrument is the *Nature Conservation (Tuggeranong Lignum) Conservation Advice 2019*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for Tuggeranong Lignum

Schedule 1 sets out the conservation advice for Tuggeranong Lignum (*Muehlenbeckia tuggeranong*).

Arthur Georges
Chair, Scientific Committee
6 November 2019

Schedule 1

(see s 3)



ACT
Government

Environment, Planning and
Sustainable Development



CONSERVATION ADVICE

TUGGERANONG LIGNUM

Muehlenbeckia tuggeranong

CONSERVATION STATUS

Tuggeranong Lignum *Muehlenbeckia tuggeranong* Mallinson, is recognised as threatened in the following jurisdictions:

National **Endangered**, *Environment Protection and Biodiversity Conservation Act 1999*
ACT **Endangered**, *Nature Conservation Act 2014*

ELIGIBILITY

The factors that make the Tuggeranong Lignum eligible for listing as Endangered in the ACT Threatened Native Species List are included in the Listing Background section below.

DESCRIPTION AND ECOLOGY

The Tuggeranong Lignum is a sprawling or procumbent shrub, eventually becoming a mounded loosely tangled mass to approximately 1 metre high and 1–2 metres across. Petioles are 0.5–3 millimetres (mm) long and leaf blades 5–13 mm long by 2–4 mm wide, showing considerable variation in form.

Inflorescences are mostly terminal, simple or 2-branched; range from 12–20 mm; and bear 3–9 flowers in a lax spike. Flowers are cream–green in colour (Makinson and Mallinson 1997).

Tuggeranong Lignum appears to be a long-lived species and is generally dioecious but only one female plant has been found. This plant is not known to have ever set seed. The plant does grow readily from cuttings but it is not known if it disperses vegetatively in the wild (ACT Government 2018).

DISTRIBUTION AND HABITAT

Tuggeranong Lignum was described from a single female plant and six male plants discovered in the Murrumbidgee River Corridor (MRC) near Tuggeranong in 1997, additional plants were located in 2010–2012 (ACT Government 2018) bringing the total number of wild individuals to eleven. Other extensive searches have not located any further plants (ACT Government 2015).



Tuggeranong Lignum (Greg Baines – EPSDD)

Tuggeranong Lignum is restricted to flood terraces in areas of rocky outcrops with pockets of silty sandy soil (Makinson and Mallinson 1997). It is found on virtually bare rock, or tangled amongst other vegetation (ACT Government 1999), appearing to tolerate extreme shade.

THREATS

The main identified threats in the ACT action plan (ACT Government 2017) include:

- limited ability to reproduce in the wild and likely low genetic variation
- physical disturbance due to proximity to popular public areas, periodic flooding and wild fire altering structural composition and changing micro climates around plants
- grazing
- weeds
- urban and infrastructure development.

MAJOR CONSERVATION OBJECTIVES

The overall objective of the action plan (ACT Government 2018) is to preserve Tuggeranong Lignum in perpetuity in the wild across its natural geographic range in the ACT including the need to maintain natural evolutionary processes.

CONSERVATION ISSUES

The ACT contains the only known population of Tuggeranong Lignum and its conservation is critical to the survival of the species. Tuggeranong Lignum is protected within the Murrumbidgee River Corridor and the first objective of the current management plan for this corridor is “to conserve the endemic, riparian and riverine ecosystems” (ACT Government 1998). The ACT Parks and Conservation Service manages the site in accordance with this plan. Conservation actions identified in the ACT action plan for the species (ACT Government 2018) include:

- protect all ACT populations with tree guards
- manage habitat to conserve populations
- manage adjacent habitat to facilitate expansion of populations
- monitor site and effects of management actions
- establish new populations through translocations – in accordance with translocation guidelines (ACT Government 2018)
- maintain an ex situ ‘insurance’ population
- research ecology, habitat and threats.

OTHER RELEVANT ADVICE, PLANS OR PRESCRIPTIONS

- ACT Aquatic and Riparian Conservation Strategy (ACT Government 2018)
- Commonwealth Conservation Advice — Tuggeranong Lignum (TSSC 2015)
- Murrumbidgee River Corridor Management Plan (ACT Government 1998)
- Conservator Translocation Guidelines (ACT Government 2018)

LISTING BACKGROUND

Tuggeranong Lignum was listed in the ACT as an Endangered species on 19 August 1998 in accordance with section 21 of the *Nature Conservation Act 1980*. At that time, the Flora and Fauna Committee (now the Scientific Committee) concluded that the assessment satisfied the following criteria:

- 1.1 Species is known or suspected to occur in the ACT region and is already recognised as endangered or presumed extinct in an authoritative international or national listing.

- 1.2 Species is observed, estimated, inferred or suspected to be at risk of premature extinction in the ACT region in the near future, as demonstrated by:
- 1.2.6 Extremely small population

Tuggeranong Lignum is eligible for listing as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as Endangered under the *Endangered Species Protection Act 1992* (Cwlth). The main factors that lead to the species being eligible for listing in the Endangered category are its small population size with a very low total number of mature individuals, and restricted area of occupancy (TSSC 2015).

REFERENCES

- ACT Government 1998. Murrumbidgee River Corridor Management Plan. Environment ACT, Canberra.
<https://www.legislation.act.gov.au/View/di/1997-268/19971212-9336/PDF/1997-268.PDF>
- ACT Government 1999. *Tuggeranong Lignum (Muehlenbeckia tuggeranong): an endangered species*. Action Plan No. 24. Environment ACT, Canberra.
- ACT Government 2018. *ACT Aquatic and Riparian Conservation Strategy and Action Plans*. ACT Government, Canberra.
https://www.environment.act.gov.au/_data/assets/pdf_file/0011/1244729/ACT-Aquatic-and-Riparian-Conservation-Strategy.pdf
- ACT Government 2018. Nature Conservation (Translocation of Native Flora and Fauna) Conservator Guidelines. Department of Environment, Planning and Sustainable Development, Canberra.
<https://www.legislation.act.gov.au/ni/2017-650/>
- Makinson R and Mallinson D 1997. *Muehlenbeckia tuggeranong* (Polygonaceae), a new species from the Canberra district. *Telopea* 7(3): 215–219.
- Threatened Species Scientific Committee (TSSC) 2015. *Conservation advice for Muehlenbeckia tuggeranong (Tuggeranong Lignum)*. Department of the Environment, Canberra.

FURTHER INFORMATION

Further information on the species or other threatened species and ecological communities can be obtained from the Environment, Planning and Sustainable Development Directorate (EPSDD).
Phone: (02) 132281, EPSDD Website: <http://www.environment.act.gov.au/cpr>