

Australian Capital Territory

Nature Conservation (Button Wrinklewort) Conservation Advice 2019

Notifiable instrument NI2019–709

made under the

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

1 Name of instrument

This instrument is the *Nature Conservation (Button Wrinklewort) Conservation Advice 2019*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for Button Wrinklewort

Schedule 1 sets out the conservation advice for Button Wrinklewort (*Rutidosia leptorhynchoides*).

Arthur Georges
Chair, Scientific Committee
6 November 2019

Schedule 1

(see s 3)



ACT
Government

Environment, Planning and
Sustainable Development



CONSERVATION ADVICE

BUTTON WRINKLEWORT

Rutidosia leptorhynchoides

CONSERVATION STATUS

Button Wrinklewort *Rutidosia leptorhynchoides* F.Muell., is recognised as threatened in the following jurisdictions:

National	Endangered , <i>Environment Protection and Biodiversity Conservation Act 1999</i>
ACT	Endangered , <i>Nature Conservation Act 2014</i>
NSW	Endangered , <i>Biodiversity Conservation Act 2016</i>
VIC	Threatened , <i>Flora and Fauna Guarantee Act 1988</i> Endangered , Advisory List of Rare and Threatened Plants in Victoria

ELIGIBILITY

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

DESCRIPTION AND ECOLOGY

Button Wrinklewort, family *Asteraceae*, is an erect perennial forb developing in early winter from a new basal rosette of upright leaves from which multiple flowering stems, 20–35 cm tall, are produced in spring and summer. These die back in late summer to autumn to the woody rootstock. Stem leaves are narrow, mostly hairless with the edges rolled under, and between 15–35 mm long and 0.5–1.5 mm wide. The yellow flat-topped hemispherical flower-heads, made up of a cluster of many small florets surrounded by rows of greenish bracts, are 8–15 mm in diameter. The individual fruits are small, dark brown and topped with whitish scales (ACT Government 2017).

Flowering occurs between December and April in the ACT. The florets are insect-pollinated and most of the seed falls within a one metre radius (Morgan 1995a; 1995b; Wells and Young 2002). The seeds only remain viable for up to 18 months and there is also high seedling mortality. Button Wrinklewort



Button Wrinklewort (Michael Bedingfield – Canberra Nature Map)

grows slowly with first flowering usually two or three years after recruitment (ACT Government 1998; Young et al. 2000b).

The species has a sporophytic self-incompatibility mechanism that prevents self-pollination or crosses between related plants that share self-incompatibility alleles (ACT Government 2017). Established plants are believed to live longer than 10 years under field conditions (Scarlett and Parsons 1990).

DISTRIBUTION AND HABITAT

Button Wrinklewort is known to occur in the ACT, south-eastern NSW and western grassy plains in Victoria). The total area occupied by the species across its entire range is 13.4 ha (NSW OEH 2012).

In the ACT region, Button Wrinklewort occurs in the suburbs just south of Lake Burley Griffin, the Majura Valley, the Jerrabomberra Valley, and at Crace Nature Reserve in Gungahlin. The largest numbers are in woodland at Stirling Park, Barton and in grassland at the Defence-owned Majura Training Area (NSW OEH 2012). While there are large numbers in Red Hill Nature Reserve and Crace Grassland Reserve, the other ACT sites support smaller populations ranging in size from 80 to 2000 plants. The species appears to have been lost from two small sites in recent years (ACT Government 2017).

Button Wrinklewort has been recorded in the ACT at Attunga Point, Crace Grasslands, Deakin, Fyshwick, Jerrabomberra Grassland, Kingston, Stirling Park, Majura, Molonglo Valley, Red Hill Nature Reserve, St Marks Grassland – Barton, Southern Tablelands Ecosystem Park (planted) and Yarralumla (Canberra.naturemapr.org 2019).

In NSW, two key sites for priority management have been identified, including in the north-western section of the Gundry Travelling Stock Reserve near the Goulburn Airport and near Queanbeyan/Jerrabomberra (OEH 2019). Only a small number of viable populations remain in Victoria.

In the ACT, Button Wrinklewort occurs in Natural Temperate Grassland and on the margins of stands of Yellow Box – Blakely's Red Gum Grassy Woodland where soils are usually shallow stony red-brown clay loams (ACT Government 2017).

THREATS

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

- urban development
- weed invasion (including agricultural and woody weeds)
- shading and competition
- erosion of genetic diversity and increased inbreeding (especially in populations of less than 200)
- more frequent drought resulting in drier conditions and/or increasing intervals between rain events reducing germinant survival
- inappropriate fire regimes with too frequent fires.

MAJOR CONSERVATION OBJECTIVES

The overall objective of the action plan (ACT Government 2017) is to preserve Button Wrinklewort 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 some of the largest and most viable (in the long-term) remaining populations of Button Wrinklewort and their conservation is likely to be critical to the survival of the species as only a small

number of viable populations remain in NSW and Victoria. The long term conservation of Button Wrinklewort depends on the retention of its native grassy habitat, including Natural Temperate Grassland and Yellow Box – Blakely’s Red Gum Grassy Woodland (ACT Government 2017). Conservation actions identified in Threatened Species Strategy (Aust Government 2015) that support the National Recovery Plan (NSW OEH 2012) actions, and confirmed by the ACT action plan (ACT Government 2017) include:

- remove invasive weeds from existing sites
- manage fire regimes
- enhance the genetics of small populations through translocations – in accordance with translocation guidelines (ACT Government 2018)
- protect sites from inappropriate activities.

OTHER RELEVANT ADVICE, PLANS OR PRESCRIPTIONS

- ACT Native Grassland Conservation Strategy (ACT Government 2017)
- National Recovery Plan — Button Wrinklewort (NSW OEH 2012)
- Australia’s Threatened Species Strategy (Australian Government 2015)
- National Capital Authority Ecological Plan (Sharp 2016)
- Conservator Translocation Guidelines (ACT Government 2018)

LISTING BACKGROUND

The Button Wrinklewort (initially known as *Rutidosia leptorrhynchoides*) was listed in the ACT as an Endangered species on 15 April 1996 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:
 - 1.2.1 Current severe decline in population or distribution from evidence based on:
 - 1.2.1.1 direct observation, including comparison of historical and current records
 - 1.2.1.3 severe decline in quality or quantity of habitat.
 - 1.2.2 Imminent risk of severe decline in population or distribution from evidence based on 1.2.1.3. above.
 - 1.2.3 Continuing decline or unnaturally extreme fluctuations in population, or distribution, for a species currently occurring over a small range or having a small area of occupancy within its range.
 - 1.2.4 Severely fragmented distribution for a species currently occurring over a small range or having a small area of occupancy within its range

Button Wrinklewort 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).

REFERENCES

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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>