

Threatened Species of the Northern Territory

Melaleuca fulgens subsp. Corrugate (J.M.Black ex Eardley) Cowley (MYRTACEAE)

Conservation status

Australia: Not listed

Northern Territory: Endangered



Description

Melaleuca fulgens subsp. *corrugata* is a dense shrub to c. 2 m high with narrow, incurved, glabrous, strongly gland-dotted leaves about 6-22 mm long and about 0.5-3 mm wide. Flowers are pale pink, in dense spikes. Fruits are woody and broadly urn-shaped.

Flowers recorded in July and August.

Fruits persisting for a year or more, present year round.

Distribution

Melaleuca fulgens subsp. *corrugata* is known in the Northern Territory (NT) from three sites in the far south-west of the NT. In 2008 a survey of the only known site in the NT on the Mannanana Range near Docker River failed to relocate the population originally found in 1978. However, two new tiny populations (both with only 3 plants) were located within the NT in 2010 - one south of Mt Mann and another at Fosters Cliffs. Recent survey work in far south-west NT has focused on suitable habitat for this taxon, which is rare in the region, and has confirmed that the taxon is very rare. However, there remains the possibility that undetected

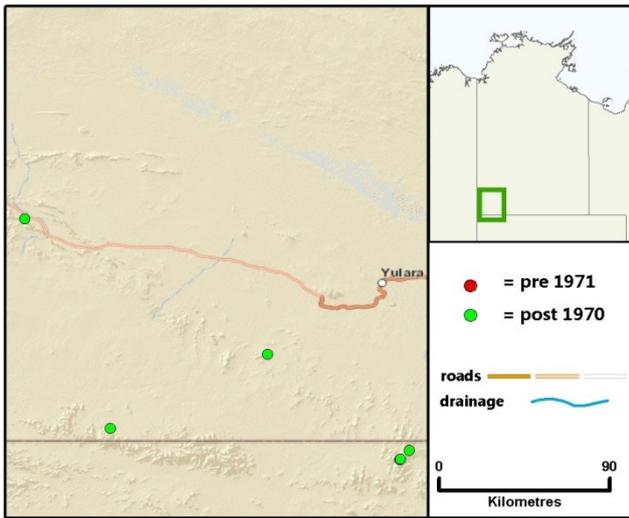
populations exist. *Melaleuca fulgens* subsp. *corrugata* remains unreserved within the NT, however populations occur within a region proposed for an Indigenous Protected Area.

The full extent of occurrence (EOO) of this taxon across NT, South Australia (SA) and Western Australia (WA) is 24 524 km², with an EOO component in the NT of 5 337 km², calculated using all three NT localities including the potentially extinct Mannanana sub-population.

This subspecies is also known from a solitary site in WA near Giles; and five sites in SA (Musgrave Ranges, Mt Lindsay and Mt Illbillee). The largest known population occurs in the western Musgrave Ranges, north-west of Armata (Paltridge et al. 2009).

The typical subspecies *Melaleuca fulgens* subsp. *fulgens* and also *M. fulgens* subsp. *steadmanii* occur in south-western WA.

Conservation reserves where reported:
None, however populations occur within a region proposed for an Indigenous Protected Area.



Known locations of *Melaleuca fulgens* subsp. *corrugata*

Ecology

Melaleuca fulgens subsp. *corrugata* occurs on ranges at high altitudes, where it occurs in habitats with a high proportion of bare rock and boulders. The rock slabs help to channel water into microhabitats occupied by the species as well as providing some protection from fire (Paltridge et al. 2009).

Conservation assessment

Melaleuca fulgens subsp. *corrugata* could be assessed as **Critically Endangered** (under criteria C2a(i) and D1) based on:

- a continuing decline in the population;
- number of mature individuals in each subpopulation <50; and
- very small and restricted population (<50 mature individuals).

However, since the species occurs in two adjacent states and that there remains an element of data deficiency and the possibility of further small subpopulations being located, the species is currently classified in the NT as Endangered, under the same sub-criteria.

Threatening processes

Although plants of *M. fulgens* subsp. *corrugata* appear to be capable of resprouting after being burnt, resprouting plants can be slow to produce fruit and seedling recruitment can be

poor (Paltridge et al. 2009). In far south-west NT *Triodia* hummock grasslands dominate the landscape, and despite the rocky habitat of *M. fulgens* subsp. *corrugata* conferring a degree of fire protection, there is considerable risk of populations being subject to frequent hot fires resulting in further decline.

Conservation objectives and management

Paltridge et al. (2009) established three monitoring sites in north-west SA (two in the Musgrave Ranges and one in the Everard Ranges) and these will provide information relevant to NT populations. Liaison with SA authorities is essential. Further survey work on the Mannanana Range and on the eastern Mann Ranges is required to ascertain whether any further small populations exist. Fire management of *Triodia*-dominated vegetation surrounding the known subpopulations is the priority management activity associated with this taxon. A key management objective would be to ensure a fire regime that is suitable to this species and such a regime is likely to be characterised by low frequency and long intervals between fires.

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References

- Paltridge, R., Latz, P., Pickburn, A., and Eldridge, S. (2009). *Establishing a monitoring program for rare and declining plants in the Anangu Pitjantjatjara Yankunytjatjara Lands of South Australia*. Department for Environment and Heritage, South Australia.