

Threatened Species of the Northern Territory

Goodenia quadrifida

Conservation status

Australia: Vulnerable

Northern Territory: Data Deficient

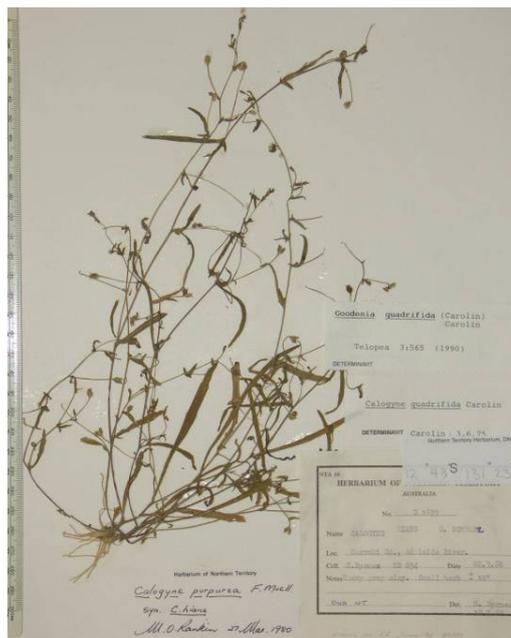


Photo: I. Cowie

Description

Goodenia quadrifida is a slender annual herb with weak stems to 30 cm long. Short glandular tipped hairs are present throughout. The leaves are alternate, narrow, 15–75 mm long, 1–5 mm wide, often with two basal lobes. The flowers are purple-brown with a yellow throat. The style is 4-armed. Seeds are rough. It is closely related to *G. purpurea* and apparently differs only by the 4-armed style (Cowie *et al.* 2000).

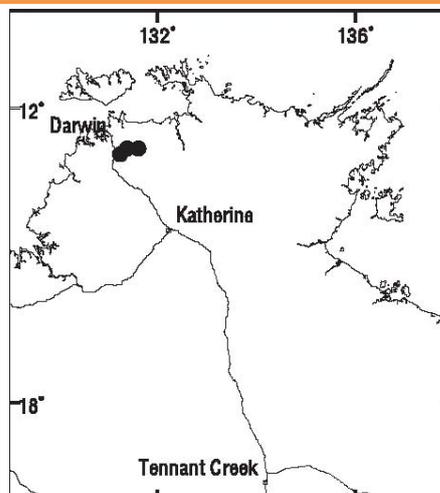
Flowering and fruiting: Mar-May.

Distribution

This species is endemic to the NT, occurring at three places near Darwin. It is known from the Marrakai Crossing area on the Adelaide River and Hardies Creek, a tributary of the Mary River (Cowie *et al.* 2000).

Conservation reserves where reported:

Mary River National Park (although imprecision in collection locality information means that the tenure on which this population occurs may need confirmation).



Known locations of *Goodenia quadrifida*.

Ecology

Collection notes indicate that plants in one population grow in grassland. It occurs on the upper parts of estuarine floodplains, on poorly drained grey clays or silty soils.

Conservation assessment

In the NT, this species is coded as **Data Deficient** based on:

- data are considered inadequate for assessment.

Assessment of conservation status is hampered by taxonomic uncertainty surrounding the species. *Goodenia quadrifida* is closely related to and is possibly conspecific with the much more widespread *G. purpurea*. There is also a negative collection bias due to difficult access to the habitat during the wet season. The species has not been collected since 1968 and no data on population size or area of occupancy are available. The extent of occurrence is estimated at 170 km².

Threatening processes

Parts of the Adelaide River where the species was recorded have been invaded by the introduced shrub *Mimosa pigra* for more than 25 years.

This species converts wetlands dominated by herbaceous vegetation into shrublands with a consequent loss of biodiversity.

While little is known of threatening processes in the Hardies Creek population, the area has been managed as a national park for many years. At the time the Hardies Creek collection was made, most similar habitat in the region was heavily grazed by feral buffalo.

Conservation objectives and management

Further research is required to confirm that *G. quadrifida* is specifically distinct from *G. purpurea*. Further survey is required to confirm the location of previously-identified populations, to provide an estimate of population size, to establish a monitoring program, to assess possible threats, and to attempt to locate additional populations.

Compiled by

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References

Cowie, I.D., Short, P.S., and Osterkamp Madsen, M. (2000). *Floodplain Flora: A flora of the coastal floodplains of the Northern Territory, Australia*. Flora of Australia Supplementary Series 10, (ABRS, Canberra.)