

Threatened Species of the Northern Territory

Schoutenia ovata

Conservation status

Australia: Not listed

Northern Territory: Endangered



Photo: I. Cowie

Description

Schoutenia ovata is a semi deciduous shrub or tree up to 10 m high. Stems and leaf undersurfaces are densely covered in white to straw-coloured hairs. Leaves are elliptic to obovate, 3.5–10 cm long, 2–5 cm wide, margins are entire to irregularly lobed in upper half. Flowers are pale yellow. The fruit is ovoid to globular, 6–7 mm long, 5.5–6 mm diam., largely filled with spongy tissue, with the dry sepals persisting and perhaps aiding in wind dispersal. (Cowie *et al.* 2011)

Flowering: February–March.

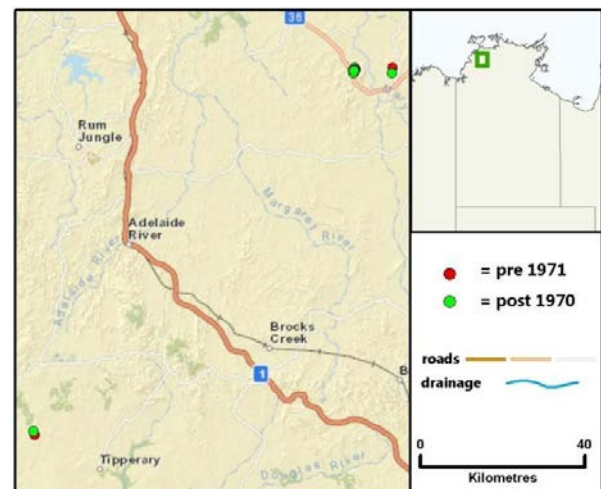
Fruiting: May.

Distribution

This species occurs in Thailand, Indochina and Java. In Australia, it is known only from the Northern Territory (NT). In the NT, it occurs in three disjunct subpopulations, two in the Mt Bunday - Mt Goyder area and near Tipperary Station (Little *et al.* 1994).

Conservation reserves where reported:

Mary River National Park.



Known locations of *Schoutenia ovata*

Ecology

This species has been collected from monsoon vine thicket on granite and limestone outcrops. The Mt Bunday subpopulation mostly occurs on south facing slopes. Juvenile plants appears to have some ability to resprout after fire. The fruit appears to be wind dispersed and fruit set is irregular.

Conservation assessment

Field surveys show that the size of known populations at Mt Bunday is in the hundreds

but that most of the subpopulation consists of regeneration less than two metres tall with very few mature individuals (G. Wightman and I. Cowie *pers. comm.*). A recent survey at Mt Bundey has extended that subpopulation by some 900 m and it is now known to be patchily distributed over an area of around 15 ha. Further potentially suitable habitat at this site is yet to be surveyed. Population estimates at Mt Goyder and Tipperary are not available, but potentially suitable habitat is very limited in extent. The general habitat has been sufficiently well sampled across the Top End to indicate that its apparently highly restricted distribution in NT is real (Russell-Smith 1991; Liddle *et al.* 1994).

This species is classified in the NT as **Endangered** (under criteria B1+2) based on:

- area of occupancy <500 km²;
- number of locations ≤ 5; and
- continuing (i.e. projected) decline in area of occupancy and area, extent and quality of habitat.

Threatening processes

Although this species is known from rocky outcrops that are unlikely to be affected by land clearing in the Daly Basin area or at Mt Bundy, invasion by introduced grassy weeds coupled with changes in fire regimes, soil hydrology and nitrogen availability is a serious developing threat.

The immediate major threat at Mt Bundey and probably also at Tipperary is the incursion of Gamba Grass (*Andropogon gayanus*) into the margins of its vine thicket habitat and subsequent erosion of those patches by changed fire regimes and altered competitive relationships. Gamba Grass is an introduced perennial grass species producing a high-biomass. It is now established and common at Mt Bundey in Eucalypt woodland adjoining

vine thicket, with scattered plants occurring in vine thicket margins in some places. This grass species has been extensively planted on Tipperary Station and is invading Eucalypt woodland and some vine thicket margins in that area.

Compared with native grasses, Gamba Grass forms taller, denser stands, curing later in the Dry season. This results in substantial changes to savanna fire regimes. It can dramatically increase fuel loads from the 2–4 tonnes/ha typical for native grasses to 11–15 tonnes/ha or sometimes even 30 tonnes/ha resulting in later, more intense fires that can kill or reduce the vigour of tree species (Rossiter *et al.* 2003; Ferdinands *et al.* 2006).

Gamba Grass may also out compete native woody species both by grossly altering the availability of nitrogen to native plant species and by using larger amounts of water than native grasses. (Rossiter *et al.* 2004; Rossiter-Rachor *et al.* 2009).

Conservation objectives and management

Judicious fire management is essential to prevent it from incurring into the vine thicket community. Gamba Grass and other invasive weeds (especially perennial grasses) need to be controlled and managed at the known sites to prevent the development of excessive fuel loads that will inevitably result in high intensity fires and to prevent erosion and invasion of vine thicket habitat. Adequate buffering from land use activities in the adjacent woodland vegetation at Tipperary may be required.

Further investigation into the size, extent and status of subpopulations is required. A monitoring site should be established for this species at least at one of the sub-populations.

Compiled by

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[updated December 2012]

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References

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