

Threatened Species of the Northern Territory

Cleome insolata

Conservation status

Australia: Not listed

Northern Territory: Vulnerable



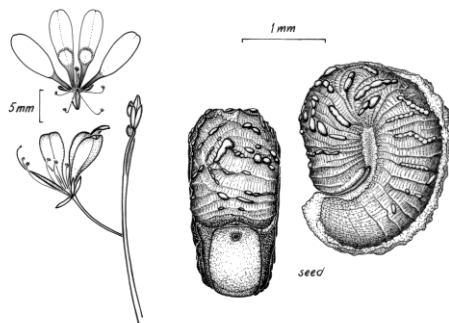
Photo: B.M. Stuckey

Description

Cleome insolata is an annual herb with ascending to weakly erect branches to c. 40 cm long. Leaves are trifoliolate, with glabrous linear leaflets, the mid one longer than laterals. Large showy flowers occur in a raceme with the four yellow 10 mm long petals held erect in the one plane. Seeds are dark and shallowly ribbed with wart-like protuberances on the surface (Short 2010).

Flowering and Fruiting: March to April.

Cleome sp. Solar Village

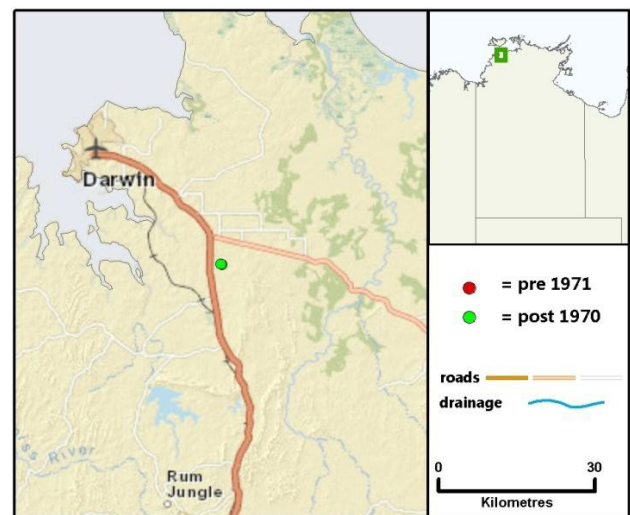


Cleome insolata flower and seed (Illustrations: M. Osterkamp)

Distribution

Cleome insolata is endemic to the Northern Territory (NT), where to date it is known from only a single population near Humpty Doo in the Darwin rural area.

Conservation reserves where reported:
None.



Known locations of *Cleome insolata*

Ecology

Cleome species are typically annual herbs with passively dispersed seed. *Cleome insolata* has been recorded growing in inundated sedgeland on silty loam with an overlay of

laterite gravel, but also on the adjoining roadside verge. The epithet 'insolata' reflects the open exposed habitat in which it has been found.

Conservation assessment

Cleome insolata is currently known to exist at only a single location and as such might be considered endangered. However there is an element of data deficiency as species-specific survey for *C. insolata* has not been carried out. Also, the species is part of a complex involving *C. tetrandra* and it may have been confused with this species in the past. At the Type locality several hundred plants have been observed in an area of approximately 0.4 ha on repeat visits. Thus, there is currently no evidence of a 'continuing decline' or 'extreme fluctuations' in extent of occurrence or area of occupancy (relevant for application of criteria B1 or B2).

This species qualifies as **Vulnerable** in the NT (under criterion D2), based on:

- restricted to an area of less than 10 km²;
- fewer than five known locations, and
- threats from human activities associated with development in the area.

The proposed status is supported by uncertainty regarding the future of remnant vegetation in the Darwin rural area which is experiencing ongoing sub-division and development. Most plants in the population occur on private freehold tenure with others growing in the adjacent roadside verge. There is a small parcel of vacant crown land immediately to the north of the site but it is not known whether the population extends onto this tenure.

Threatening processes

The key threat to *Cleome insolata* is ongoing sub-division, development and intensification of land use in the Darwin rural area. The only

known population is in an insecure situation in the corner of a substantially cleared grazing property and adjacent roadside. Management is not helped by incomplete knowledge of its real distribution.

Some *Cleome* species are regularly found in modified environments indicating a level of resilience to disturbance. *Cleome insolata* occurs in a paddock and roadside situation so may likewise be capable of coping with a certain level of disturbance.

Conservation objectives and management

Survey and assessment of the vacant crown land parcel immediately north of the known population is needed to ascertain whether the species occurs on this tenure. If so, conservation measures should then be negotiated and implemented with Department of Lands and Planning. If not, negotiation with the private property owner to the south should occur in an attempt to establish land management practices sympathetic to maintenance of the *Cleome* population.

Targeted survey for the species is required across suitable potential habitat in the Darwin rural district to determine if further populations exist. Such survey needs to be conducted during a period when the species is expected to flower.

Complied by

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[updated December 2012]

References

- Short, P.S. (2010). New species of *Cleome* L. (Cleomaceae) from the Northern Territory, Australia. *The Beagle, Records of the Museum and Art Galleries of the Northern Territory* **26**, 1–12.