

Threatened Species of the Northern Territory

Carex fascicularis Sol. Ex Boott (CYPERACEAE)

TASSEL SEDGE

Conservation status

Australia: Not listed

Northern Territory: Vulnerable



Photo: D. Albrecht

Description

Carex fascicularis is an erect densely tufted perennial sedge to 1 m with trigonous culms and short rhizome. Leaves with blade 6–11 mm wide; sheath yellow-brown; ligule acute. Inflorescence spreading, 6–25 cm long, with 3–6 spikes solitary at nodes. Spikes are male or female, long-pedicellate (2.5–7 cm long) and drooping when mature. Nut is obovoid, trigonous in cross section, yellow-brown in colour (Wilson 1993).

Flowering: records for May, June and November.

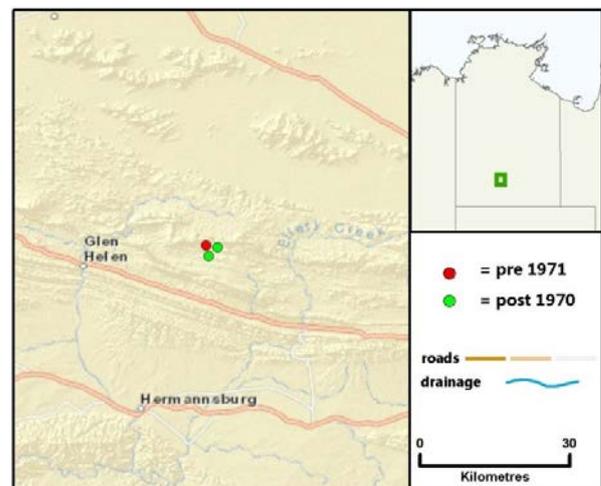
Fruiting: records for June, August–September.

Distribution

The species occurs in all Australian states and is common in south-eastern Australia. In the Northern Territory (NT) however, it is known from a single population located at Giles Yard Spring in the West MacDonnell Ranges. This site is the largest permanent

spring in the Chewings Range. The springs in the Chewings Range have been moderately well surveyed and the species has not been detected elsewhere. It is considered unlikely that *Carex fascicularis* occurs elsewhere in Central Australia.

Conservation reserves where reported:
West MacDonnell National Park.



Known locations of *Carex fascicularis*

Ecology

This species is intrinsically rare in the NT most likely due to the near absence of suitable habitat. Throughout its continental range, the species is closely associated with swampy areas in mesic/sub-coastal regions (White et al. 2000). Very little is known about the population dynamics or reproductive ecology of the NT population.

Conservation assessment

Carex fascicularis is classified in the NT as **Vulnerable** (under criteria D1 + D2) based on:

- number of mature individuals <1 000;
- restricted to a very small area, with fewer than five locations; and
- an observed threat to the permanent springs from damage by feral animals, invasion by weeds and altered hydrology caused by climate change.

Threatening processes

Given its small size and restricted distribution, the NT population of *Carex fascicularis* is highly vulnerable to the effects of stochastic processes such as disease. Currently its habitat is effectively weed free, however invasion by exotic grasses, Buffel Grass or Couch Grass, would represent a significant threat to this species. The site is naturally protected from fire. However increased fire incidence at the site as a result of exotic grass invasion of neighbouring areas would severely compromise the integrity of *Carex fascicularis* habitat.

Conservation objectives and management

The maintenance of this species in the NT is contingent on the effective management of the Giles Yard Springs site. Currently, access is highly restricted and this arrangement should stay in place. Monitoring of habitat quality and population changes (especially weed occurrences) should also remain a priority. Fire protection through control burning on park is another important aspect of the management of this species.

Complied by

David Albrecht,
Peter Latz,
Angus Duguid
John Westaway
Catherine Nano
[December 2012]

References

- White, M., Albrecht, D., Duguid, A., Latz, P., and Hamilton, M. (2000). Plant species and sites of botanical significance in the southern bioregions of the Northern Territory. Volume 1: significant vascular plants. A report to the Australian Heritage Commission. (Arid Lands Environment Centre, Alice Springs.)
- Wilson, K.L. (1993). Cyperaceae. P. 390, in G.J. Harden (ed.) Flora of New South Wales V. 4. New South Wales University Press, Sydney.