

Threatened species of the Northern Territory

Schoenus centralis

Conservation status

Australia: Not listed

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976



Credit: D. Albrecht

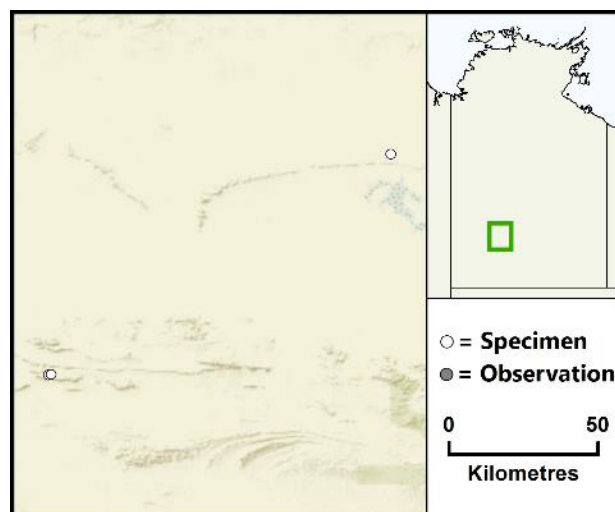
Description

Schoenus centralis is a densely tufted annual sedge to about 30 cm high. The leaves are grass-like, to about 40 cm long and 3 mm wide. Flowering stems bare clusters of 4-6-flowered spikelets. Perianth segments are absent. The fruit are 1.1-1.5 mm long, and 3-horned, with each of the three ridges shortly produced at the summit into a small rounded projection.

Flowering: any month of the year if adequate moisture.

Distribution

Schoenus centralis is known in the Northern Territory (NT) from two sites in central arid NT. The type was collected on Napperby Station in the north-east of the Great Sandy Desert Bioregion and a subsequent collection made from near Talipata Gorge in the far west of the MacDonnell Ranges Bioregion. These two NT populations are ca 130 km apart. The species is also known from one site (Rawlinson Range) in Western Australia (Rye 1997) some 365 km south-west of Talipata Gorge.



Caption: Known locations of *Schoenus centralis* in the NT (nrmmaps.nt.gov.au)

While the species has also been recorded from Queensland and New South Wales, the identity of these subpopulations is currently under review (J. Bruhl pers. comm.) and it is conceivable that they will be separated from *Schoenus centralis sensu stricto*.

Notes accompanying the 1975 collection from Napperby Station indicate that the species was infrequent at the site. There is no accurate GPS location for the Napperby population and four hours' searching in appropriate habitat and in reasonable seasonal conditions in 1997, failed to relocate the population. The original 1984 collection from near Talipata Gorge indicates that *Schoenus centralis* was rare at the site. The species was relocated in 2010 at this site though only five plants were found, despite excellent survey conditions.

The probability of finding further populations is low. Most of the springs in the West MacDonnell Ranges and near Mt Edward that could potentially support *Schoenus centralis* have now been surveyed without locating further subpopulations. This encompasses all currently known potential habitat. The species' habitat is the zone where water seeps from the bottom of a cliff. This specialised habitat is neither readily mappable nor predictable from map data sources.

NT conservation reserves where reported: None

Ecology and life-history

Schoenus centralis occurs around sheltered seepage areas or springs associated with range systems. The type locality is a seepage area with *Melaleuca glomerata* growing in gravelly sand at the base of quartzite hill with. At the site near Talipata Gorge it grows in skeletal soil in a sheltered drip zone/seepage area at the cliff base of a quartzite hill with *Adiantum hispidulum*, *Lindsaea ensifolia*, *Melaleuca pauciflora* and *Trema tomentosa*.

The sheltered seepage zones and springs where *S. centralis* occurs are specialised habitats that are distributed very sparsely through the central Australian ranges.

Threatening processes

Like many wetland plants *Schoenus centralis* could be threatened by competition from Couch Grass (*Cynodon dactylon*)¹. Grazing and trampling by horses and cattle are also potential threats as springs provide focal points for intensive activity

of these animals. Prolonged drought leading to springs drying up would also put increased stress on the small known populations.

Conservation objectives and management

Further targeted survey work in suitable habitat and favourable conditions is required near Mt Palmer and on Napperby Station. Sites should be monitored to track population health and threat levels. Stock-exclusion fencing may be necessary if there is evidence that horses, camels or cattle are degrading sites. Weed control work will be required if Couch Grass is found in the vicinity of populations.

References

¹ Duguid, A., Barnetson, J., Clifford, B., Pavey, C., Albrecht, D., Risler, J. and McNellie, M. 2005. *Wetlands in the arid Northern Territory*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.