

THREATENED SPECIES SCIENTIFIC COMMITTEE

Established under the *Environment Protection and Biodiversity Conservation Act 1999*

The Minister's delegate approved this conservation advice on 01/10/2015

Conservation Advice

Verticordia staminosa subsp. *cylindracea* var. *cylindracea*

Granite Featherflower

Following change to the format of name, the name of this species has changed, and is listed under the EPBC Act as *Verticordia staminosa* var. *cylindracea* as at 31 October 2015.

Conservation Status

Verticordia staminosa subsp. *cylindracea* var. *cylindracea* (granite featherflower) is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act). The species is eligible for listing as endangered as, prior to the commencement of the EPBC Act, it was listed as endangered under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth).

The main factors that are the cause of the species being eligible for listing in the endangered category are: there being less than 10,000 mature plants; a continuing decline in the number of mature individuals; and, no subpopulation containing more than 1000 mature individuals.

The granite featherflower is also listed as vulnerable (declared rare flora – extant) under the Wildlife Conservation Act 1950 (Western Australia).

Description

Granite featherflower is a small, much branched shrub with very narrow, more or less stalkless leaves to 1.5 cm long. Its solitary yellow flowers have protruding stamens 6-7 mm long that are bright red with yellow tips. Below these are yellow, very feathery sepals 5-6 mm long and two bright red persistent bracts (Brown et al., 1998; Durell and Buehrig 2001).

Distribution

Granite featherflower is endemic to south-west Western Australia, where it is known from eight localities between Pingaring and east of Newdegate. It grows in seasonally wet shallow soil pockets in crevices and on edges of exposed granite outcrops (Patten et al., 2004). A generalised distribution map for granite featherflower is attached.

Fourteen populations have been described on water reserves, private land, roadside reserves, and a small number of nature reserves. While 54% are within water reserves, these are not managed for conservation. Just over one third (37%) of the total population is within nature reserves managed for conservation (Department of Environment and Conservation 2014).

Three of the fourteen known populations (3, 6 and 7) increased between 2002 and 2011; while four populations (1, 4, 5 and 9) declined. The remaining populations are stable. Overall the population of granite featherflower has decreased by approximately one-third from approximately 1500 in the late 1980s to 934 in 2010/11 (Department of Environment and Conservation 2014).

Threats

The following threats are identified in Patten et al., 2004 for granite featherflower:

- Rabbits and kangaroos are present at populations 2, 5 and 7 but do not appear to browse or disturb adult plants. However, rabbits do graze native plant seedlings, presumably including those of the granite featherflower thus affecting recruitment. In areas where rabbits are present there appears to be little recruitment suggesting that rabbits may be grazing on young seedlings.
- Weeds are evident in many of the soil pockets occupied by granite featherflower and may be inhibiting recruitment. Weeds also encourage grazing, and could potential increase the threat from fire by providing fuel.
- Recreation at Pingaring rock (Population 2) may be impacting on the population. Many smaller surface rocks have been turned over and may indicate a high level of recreational use (probably due to the proximity to the golf club). Trampling and soil disturbance may have a negative effect on seedling recruitment and survival.
- Water pipeline maintenance may impact on Population 9 which is located very close to a water pipeline.
- Insecure tenure of private property populations may result in a change of land ownership and place populations at risk from inappropriate future management practices.
- Fire is presumed to kill mature granite featherflower plants but is only a potential threat as the large surrounding areas of exposed rock prevent it from reaching most plants. However, if there were a rise in quantity of grassy weeds the threat would become more significant.

Conservation Actions

Conservation and Management Actions

The objective of recovery actions is to abate identified threats and maintain or enhance *in situ* populations to ensure the long-term preservation of the taxon in the wild.

- Ensure that owners and managers of land containing populations of granite featherflower have been formally notified of the presence of granite featherflower and are aware of the Declared Rare Flora status and EPBC threatened species listing of the taxon and the associated legal responsibilities.
- Work with owners and managers of land containing populations of granite featherflower to achieve long-term protection of habitat and minimise disturbance.
- Promote awareness of granite featherflower among land owners and managers and other users of land containing populations of granite featherflower
- Collect and maintain ex situ storage of viable seed and cutting material collected from all populations of granite featherflower to guard against extinction and allow for propagation of plants for possible future translocations
- Work with owners and managers of land containing populations of granite featherflower to control rabbits in areas of granite featherflower habitat where rabbits are present
- Work with owners and managers of land containing populations of granite featherflower to control weeds in areas of granite featherflower habitat where weeds are present

Survey and Monitoring priorities

- Conduct further surveys to:
 - monitor the trend in population size and area of occupancy,
 - map critical habitat

- search for additional populations in areas of suitable habitat
- Monitor and report on the effectiveness of management actions – in particular long-term protection of habitat and rabbit and weed control
- Monitor the risk of fire becoming a threat to granite featherflower

Information and research priorities

- Conduct genetic research to investigate relationships between populations and relationships/differences between *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea* and var. *erecta* to inform ex situ management and potential translocations.

References cited in the advice

- Brown, A., Thomson-Dans, C., and Marchant, N. (Editors). (1998). Western Australia's Threatened Flora. Department of Conservation and Land Management, Como, Western Australia.
- Department of Environment and Conservation. (2014). Extract from the Threatened and Priority Flora Database, 6 May 2014.
- Durell, G. and Buehrig, R. (2001). Declared Rare and Poorly Known Flora in the Narrogin District. Department of Conservation and Land Management, Narrogin, Western Australia.
- Patten, J., Kershaw, K., and Loudon, B. (2004). Granite Featherflower (*Verticordia staminosa* subsp. *cylindracea* var. *cylindracea*) Interim Recovery Plan 2004-2009. Department of Conservation and Land Management, Wanneroo, Western Australia.