Trachymene saniculifolia

Other names *Didiscus scapiger* Domin (*Trachymene scapigera*).

Common name None

Conservation status

Trachymene saniculifolia Stapf is listed as an **Endangered Species** on Schedule 1 of the New South Wales *Threatened Species Conservation Act, 1995*. The species is also listed (as *T. scapigera*) as an **Endangered Species** on Schedule 1 of the Commonwealth *Endangered Species Protection Act, 1992*.

General description

T.saniculifolia is a robust herb that grows to the height of 50cm. White to pinkish flowers are apparent from December to March with the ripened small fruit allowing for seed dispersal in April. An illustration of *T. saniculifolia* can be found in Powell (1992).

Scientific description

T. saniculifolia (Apiaceae) is a perennial robust herb to 50cm high with glabrous or ± hirsute stems. Leaves mainly basal, lamina 0.5-4cm long, 1-6cm wide, ± circular to broad-cuneate in outline, deeply 3-lobed to 3-partite, hairy to glabrous; segments broad-rhombic, often further divided, lobed or toothed; leaf stem 3-13cm long, hairy or glabrous, with a broad ciliate sheath at base. Umbels terminal or leaf-opposed, 12-20mm diam., 20-30 flowered; stalk 3-29 cm long, hairy to glabrous; bracts lanceolate, 5-7mm long, entire or sparsely ciliate, very shortly joined at base. Petals 1.7-2.5mm long, white to pinkish. Fruit 1.5-3mm long; with both mericarps maturing, smooth and glossy (Powell 1992).

T. saniculifolia was initially collected by Blakely in 1899 and described as *Didiscus scapiger* Domin (*T. scapigera*) which is considered to be conspecific with *T. saniculifolia*. Details of how to distinguish *T. saniculifolia* from 9 other *Trachymene* species that occur within NSW can be found in Powell (1992).

Distribution

Until recently, *T. saniculifolia* was known only from the type specimen collected in 1899 by Blakely near Jenolan Caves west of Sydney, and was presumed to be extinct (Powell 1992). In the 1980's, *T. saniculifolia* was rediscovered growing along the banks of the Boyd River in the Kanangra Boyd National Park, approximately 200 km west of Sydney. At this location there are two known populations of *T. saniculifolia* separated by c. 4km (Mackenzie 1996).

Recorded occurrences in conservation reserves

The only known populations of *T. saniculifolia* occur within the Kanangra Boyd N P (NPWS 1999).

Habitat

T. saniculifolia is restricted to flat or gently sloping ground in the riparian zone of Boyd River. Habitat type can vary. At one site *T. saniculifolia* is distributed along a leptospermum thicket that borders the banks of the river within a eucalyptus woodland. At another site, individuals occur upon a gravel patch situated beside the river (Mackenzie 1996). Associated species include *Eucalyptus pauciflora, E. dalrympleana, E. macarthurii, Hakea microcarpa, Kunzea parvifolia, Persoonia oxycoccoides, Poa sieberiana, Patersonia sericea, Lomandra filiformis, Xanthosia dissecta, Goodenia bellidifolia, Stylidium graminifolium, Thysanotus tuberosus, Hypoxis hygrometrica, Leptospermum obovatum, Lomatia myricoides, Derwentia derwentiana* and *Blechnum nudum* (B. Mackenzie pers comm.).

Ecology

Despite being perennial, above-ground parts of this herb dieback over winter. In late April, the leaves begin changing colour,

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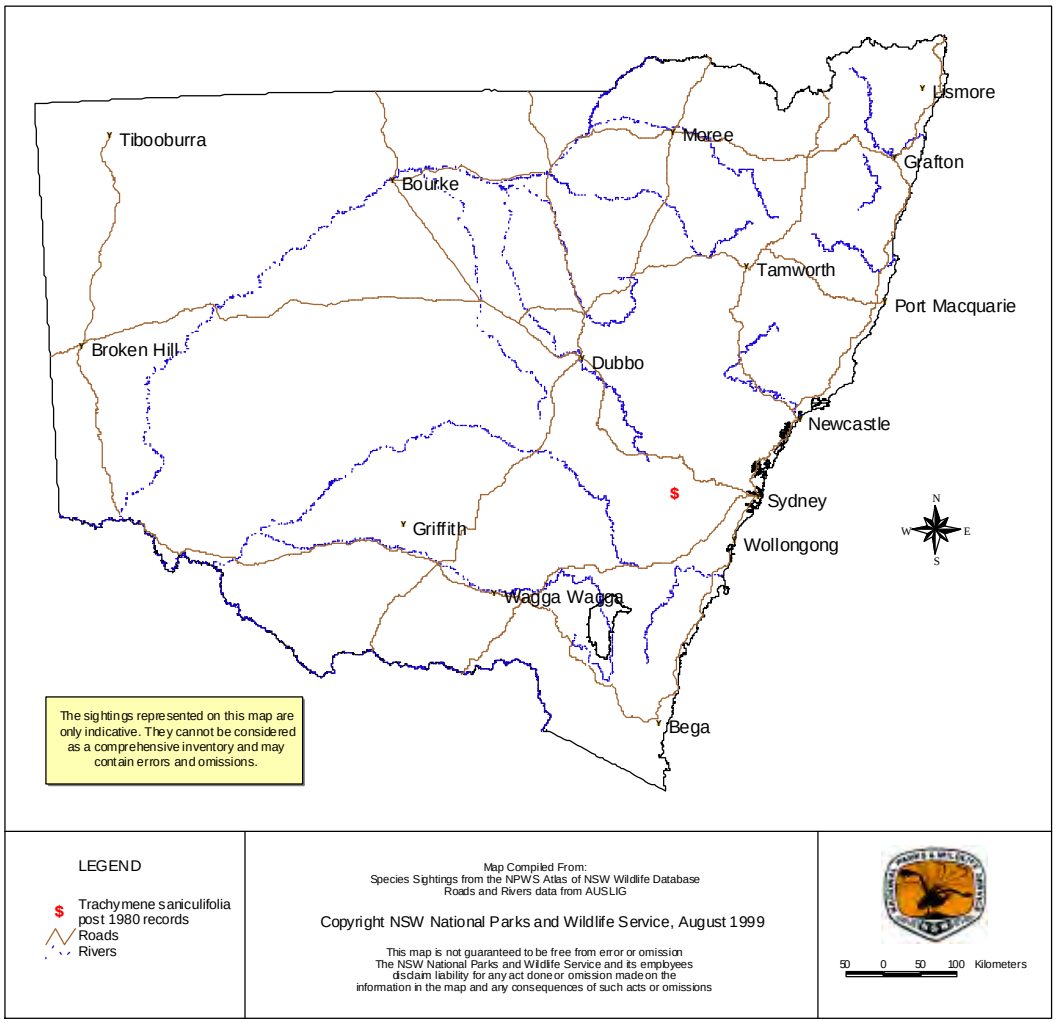

NPWS records of *Trachymene saniculifolia* in NSW

turning red and yellow. Over the next few months of winter, the leaves turn brown and die with total foliage loss occurring for many patches around July. By October, regrowth of the foliage has commenced and seedlings are emerging in the field. The species flowers from December until March. The fruit ripens and the seed begins dispersing in April. *T. saniculifolia* exhibits restricted primary seed dispersal, however, given the buoyancy of seed, the potential exists for secondary dispersal via water in the event of the river flooding. The seed has an initial high viability, but viability deteriorates over time (from 70% to 2 % over a one year period). Such short-term seed viability prevents the species from developing a substantial soil stored seedbank. The absence of a large seedbank for this species means that the present years seed crop is the major source of recruitment. As a result the population will be more vulnerable to disturbances that affect the reproductive output such as grazing. *T. saniculifolia* is also capable of reproducing clonally via rhizomes, often leading to the formation of dense mats or patches of plants (Mackenzie 1996).

Threats

The main population of this species is bisected into two sub-populations by a heavily used camping ground and access road, thus rendering the plants potentially vulnerable to human disturbance. Grazing may also be a threat to this species persistence by contributing to lower rates of establishment (Mackenzie 1996).

Management

All populations occur within National Park and are thus relatively secure, however regular monitoring is needed to identify threats. If it became apparent that human disturbance threatened the species persistence then appropriate management actions (eg. fencing or relocation of camping ground) would be necessary.

Recovery plans

A recovery plan has not been prepared for *T. saniculifolia*.

References

Mackenzie B.D.E. 1996. Population biology and reproductive ecology of *Trachymene scapigera*. Honours thesis. School of Biological Sciences, University of Sydney.

Powell J.M. 1991. Apiaceae, in G. J. Harden (Ed.) Flora of New South Wales Volume 3: 87-116. New South Wales University Press, Kensington.

NPWS 1999. Atlas of NSW Wildlife. NPWS, Hurstville.

For further information contact

Threatened Species Unit, Central Directorate Phone 02 9585 6678
General enquiries: 43 Bridge St Hurstville NSW 2220 Phone 1300 36 1967 or 02 9585 6333.
Web site www.npws.nsw.gov.au

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