Dillwynia tenuifolia

The following information is provided to assist authors of species impact statements, development and activity proponents, and determining and consent authorities, who are required to prepare or review assessments of likely impacts on threatened species pursuant to the provisions of the *Environmental Planning and Assessment Act* 1979. These guidelines should be read in conjunction with the NPWS *Information Circular No. 2: Threatened Species Assessment under the EP&A Act: The '8 Part Test' of Significance* (November 1996) and with the accompanying "Threatened Species Information" sheet.

Survey

D. tenuifolia is best surveyed during the peak flowering period (August to March, but especially September - Maryott-Brown & Wilks 1993, Benson & McDougall 1996) when it is easiest to observe and identify.

Non-flowering plants are superficially similar to many other heath-like plants, and may be overlooked when spindly and growing in thick scrub.

D. tenuifolia has been reported to have been confused with *D. glaberrima* and *D. sieberi,* but can be identified from other pea species by its relatively soft and long (4-12mm), linear, terete leaves with an apex which is frequently recurved. The inflorescence is 1- or rarely 2-flowered, borne on a peduncle < 3mm long, occurring terminally or in the upper leaf axils (Harden 1991). In open areas it may have a distinct form - a low and compact shrub with arching branchlets.

Surveys should initially concentrate in open areas within woodland/open forest, particularly targeting areas possessing laterised gravels, or low rises which have a well developed or regenerating low shrub layer. *Eucalyptus fibrosa* is likely to be a dominant canopy species. *Eucalyptus globoidea, E. longifolia, E. parramattensis, E. sclerophylla* and *E. sideroxylon* may also be present or co-dominant. *Melaleuca decora* often forms a secondary canopy layer. *D. tenuifolia* is frequently abundant in such localities.

Habitat containing any of the following threatened species, *Dodonaea falcata, Grevillea juniperina, Micromyrtus minutiflora, Persoonia nutans, Pultenaea parviflora* and *Styphelia laeta,* is also likely to be suitable for *D. tenuifolia*. Other key associated species may include: *Aristida* spp., *Bursaria spinosa, Daviesia ulicifolia, D. sieberi, Entolasia stricta, Hakea sericea, Lepidosperma laterale, Lissanthe strigosa, Melaleuca nodosa* and *Ozothamnus diosmifolius*.

Life cycle of the species

Proposals which are likely to affect the life cycle of the species, such that a local population is put at risk of extinction, would include proposals that:

- result in total destruction of habitat;
- result in a partial destruction or modification (including changes to hydrology and nutrification of the soil substrate) of the habitat or the vegetation structure which may result in dense monospecific regrowth of large shrubs, trees or invasion of alien species;
- result in a requirement for frequent fire hazard reduction, so that the seedbank cannot be adequately replenished;
- increase vehicular, bike or pedestrian access to a population; or
- increase rubbish dumping and associated weed invasion or arson (for example, through adjacent residential development).

Threatening processes

"High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition" is listed in the NSW Threatened Species Conservation Act 1995 as a key threatening process. *D. tenuifolia* is fire

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sensitive and is therefore vulnerable to high frequency fires.

Clearing of native vegetation is listed as a key threatening process and is pertinent for the consideration of impact assessment for *D. tenuifolia*.

Threatening processes currently affecting the species include clearing, slashing, grazing, trampling and habitat modification through altered fire regime, urban runoff, weeds, rubbish dumping, indiscriminant vehicular and pedestrian access.

Viable local population of the species

All populations should be considered viable unless proven otherwise ie. they consist of a few individuals in highly insecure, disturbed and weed impacted locales such as roadsides.

A significant area of habitat

The NPWS considers that generally, all viable populations should be considered as occupying a significant area of habitat until such times as adequate and representative examples across the species range are conserved.

Where it can be demonstrated conclusively that a population is very small and non-viable, and where adequate representative reservation occurs within the nearby vicinity, that area of habitat could be considered insignificant.

Isolation/fragmentation

Rymer (1999) found that the genetic neighbourhoods within a large of a population of *D. tenuifolia* to be approx. 120m in diameter. Thus distances, between groups of plants, greater than this are likely to result in populations which are isolated. Therefore, activities which create such gaps are likely to be causing further isolation or fragmentation of the species.

Regional distribution of the habitat

D. tenuifolia is confined to the Sydney Basin Biogeographical Region

Limit of known distribution

The current known limits of distribution is Yango in the north, Woodford and Kurrajong Heights in the west, Kemps Creek vicinity in the south and Dean Park in the east.

Adequacy of representation in conservation reserves or other similar protected areas

D. tenuifolia is recorded from Agnes Banks, Windsor Downs Castlereagh and Mulgoa Nature Reserves, Scheyville, Blue Mountains and Yengo National Parks (NPWS 1997) and the proposed ADI Regional Park.

A number of significant sites are on Commonwealth, State and local government controlled lands where the intentions of the managers concerned are unknown. Until protection of these populations is ensured, this species must be considered inadequately reserved.

Critical habitat

Critical habitat cannot be declared for *D. tenuifolia* as it is not listed on Schedule 1 of the NSW *Threatened Species Conservation Act* 1995.

For Further Information contact

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