



Duffys Forest Ecological Community

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 community profile.

Survey

Surveys for Duffys Forest ecological community (DFEC) can be conducted at any time of year. If surveys are undertaken in spring, when more species are in flower, this is likely to provide a more accurate picture of the diversity of species at a site and so may provide a better indication of the quality and relative significance of a remnant.

It is important to note that species diversity is also influenced by remnant size and disturbance history, particularly fire. Remnants that are long unburnt may appear to have less flora species present, as some species may only be present in the seedbank or as dormant buds.

Smith and Smith (2000) have developed a list of diagnostic species to assist in the classification of vegetation communities which dominate the Hawkesbury Sandstone ridges such as the Sydney Sandstone Ridgetop Woodland. Use of this list

should be made with consideration of potential species diversity bias and in conjunction with comprehensive data from the target community and all other communities to which it is compared.

DFEC can also be distinguished from Sydney Sandstone Ridgetop Woodland as it tends to have a taller, denser tree layer and a grassier understorey.

Smith and Smith (2000) have mapped all intact remnants across its distribution. However this mapping has not included the identification of remnants of the community where the understorey and/or overstorey are severely degraded.

Threatening processes

The following key threatening processes have been listed under the NSW *Threatened Species Conservation Act 1995* and may affect remnants of DFEC.

- “High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition.”
- “Loss of biodiversity as a result of loss and/or degradation of habitat following clearing and fragmentation of native vegetation”.
- “Infection of native plants by *Phytophthora cinnamomi*”

In addition the “removal of dead wood, dead trees and logs” has been preliminary listed as a Key Threatening Process which may impact on DFEC.

Threatening processes potentially affecting DFEC include mowing, grazing and habitat modification

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through weeds, rubbish dumping, access and urban runoff.

A significant area of habitat

Given that approximately 84% of the original distribution of this community has been cleared, all remaining remnants should be considered significant.

The DFEC has 3 distinct sub units of variation (Smith & Smith 2000), 2 of which are highly restricted today.

The majority of the individual remnants of DFEC are less than 5 ha, with only 5 of the 59 mapped remnants with an area greater than 10 ha. The quality, size, diversity and security of a remnant and whether it is linked to other areas, are all factors that should be considered when assessing the relative significance of a remnant.

Isolation/fragmentation

Isolation and fragmentation are likely to be significant issues for the community, given the size and distribution of remnants. The current distribution of DFEC is highly fragmented. Further fragmentation should be avoided as it will be detrimental to the persistence of the community.

Regional distribution of the habitat

The distribution of the DFEC is confined to the Sydney Basin

For further information contact:

Threatened Species Unit, Central Directorate, NSW NPWS, PO Box 1967, Hurstville NSW 2220.
Phone: 9585 6678. www.npws.nsw.gov.au

References

NSW Scientific Committee (2002). Final Determination for the Duffys Forest ecological community as an endangered ecological community. NSW Scientific Committee, Hurstville.

Smith, P. and Smith, J. (2000) Survey of Duffys Forest Vegetation Community– Report prepared for the National Parks and Wildlife Service and Warringah Council.

Bioregion and remaining remnants are restricted to the northern suburbs of Sydney.

Limit of known distribution

As DFEC has a very restricted distribution, therefore, most remnants are likely to be at the known limit if its distribution (See attached distribution map). The general distribution is bounded by Duffys Forest, Seaforth, Ingleside and St Ives with outlying stands to the north east at Bilgola Plateau and to the south west at South Turramurra, and North Epping. (Smith and Smith, 2000).

Adequacy of representation in conservation reserves

Less than 8% (117ha) of the original extent of DFEC is recorded within NPWS reserves. A further 2.7% (39ha) is afforded some protection in reserves managed by Council or Trusts. Much of the reserved habitat is narrow and fragmented and adjacent to major roads. All reserved habitat is subject to ongoing threats, therefore DFEC is not adequately represented in the conservation reserve system.

Critical habitat

No critical habitat has been declared for this community.

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