



Duffys Forest Ecological Community

Conservation Status

The Duffys Forest Ecological Community (DFEC) is listed on Schedule 1 Part 3 of the *Threatened Species Conservation Act 1995* as an **endangered ecological community**.

Description

DFEC generally has the structural form of open-forest or woodland. There is variation in the species composition of the community and in the canopy dominants (Smith and Smith 2000). The tree canopy layer ranges from 11-26m and is dominated by Red Bloodwood (*Corymbia gummifera*), Black Ash (*Eucalyptus sieberi*), Smooth-barked Apple (*Angophora costata*), and frequently a stringybark (*E. capitellata* or *E. oblonga*) (Smith and Smith 2000). Scribbly Gum (*E. haemastoma*) is common in the community, but at lower densities than in surrounding sandstone vegetation.

Dominant shrub species include Myrtle Wattle (*Acacia myrtifolia*), Hairpin Banksia (*Banksia spinulosa*), Rusty Velet-bush (*Lasiopetalum ferrugineum*), Crinkle Bush (*Lomatia silaifolia*) and Broad-leaf Geebung (*Persoonia levis*). Common ground layer and climber species include Apple-berry (*Billardiera scandens*), Wiry Panic (*Entolasia stricta*), Twisted Mat-rush (*Lomandra obliqua*), *Micranthemum ericoides* and *Xanthorrhoea media*.

Some remnants of DFEC provide habitat for threatened species including *Epacris purpurascens* var. *purpurescens*, *Grevillea caleyi*, *Pimelea curviflora* var. *curviflora*, *Persoonia hirsuta* and *Tetratheca glandulosa*.

January 2004

Distribution

The original distribution of DFEC was naturally patchy given that it was typically associated with shale lenses and lateritic soils on Hawkesbury Sandstone, which are usually found on ridgetops, plateaus and upperslopes. The estimated original extent of DFEC is approximately 1450 ha.

The distribution of DFEC has been extensively fragmented, and currently occurs primarily within Warringah, and Ku-ring-gai Local Government Areas (LGA) with minor occurrences in the Pittwater (Ingleside and Bilgola Plateau) Manly (Seaforth Oval) and Hornsby (South Turramura and Epping North) LGAs.

Less than 16%, or approximately 240 ha, of the original distribution remains. The majority of the community remaining (89%) occurs within the Warringah LGA, while 8% occurs in Ku-ring-gai LGA with less than 2% recorded in each of Pittwater, Manly and Hornsby LGAs.

Recorded occurrences in conservation reserves

Approximately 117 ha (49%) of remaining remnants of DFEC occur within National Parks and Wildlife Service reserves, primarily Garigal and Ku-ring-gai National Parks with a small remnant in Lane Cove National Park. A further 36 ha (15%) is recorded in other reserves managed by Councils or Trusts.

Habitat

DFEC typically occurs in association with shale lenses and lateritic soils in Hawkesbury Sandstone. Rock outcrops are usually absent from

Duffys Forest, except on the fringes, where it adjoins typical sandstone vegetation, generally characterised by extensive sandstone outcrops.

It is usually found on ridgetops, plateaus and upper slopes, but may also occur on mid-slopes or benches downslope of Sydney Sandstone Ridgetop Woodland.

DFEC vegetation occurs on Somersby and Blacktown Soil Landscapes as identified by the Scientific Committee (2002). It also occurs in other soil units, including the Lucas Heights and Lambert Soil Landscapes and, to a lesser extent, the Gynea and Hawkesbury Soil Landscapes (Smith and Smith 2000).

Ecology

The floristic composition and structural diversity of remaining DFEC remnants is most likely influenced by the size and disturbance history of the site (NSW Scientific Committee 2002). Fire severity and frequency are likely to be important factors influencing community composition.

Threats

Known threats to this community include habitat loss and habitat degradation from land clearing, fragmentation, weed invasion, dumping, inappropriate fire regimes and physical damage from inappropriate access and disturbance

by people, horses, trail-bikes and other vehicles (resulting in deterioration of the tracks, soil erosion, nutrient enrichment and introduction of weeds).

Management

Management actions should involve management of threats at sites, through weed eradication, fencing, bush regeneration and public education and involvement. Actions should concentrate on the causes of the problem. For example, managing weed infestations should focus on urban runoff entering DFEC stands, repeated disturbance by human activities, or prolonged absence of fire rather than just treatment of the weeds themselves. Unless the causes of the problem are identified and action taken to mitigate their impact, threats such as weed infestations will simply recur.

Management should also aim to increase security of sites, through the implementation of protection mechanisms. This may include preparation of plans of management for sites, entering into voluntary conservation agreements and rezoning for conservation.

Recovery Plans

A draft recovery plan is currently in preparation which will be exhibited in 2004.

For Further Information Contact:

Threatened Species Unit, Central Directorate NSW NPWS, PO Box 1967, Hurstville, NSW 2220, Phone: (02) 9585 6678, www.npws.nsw.gov.au

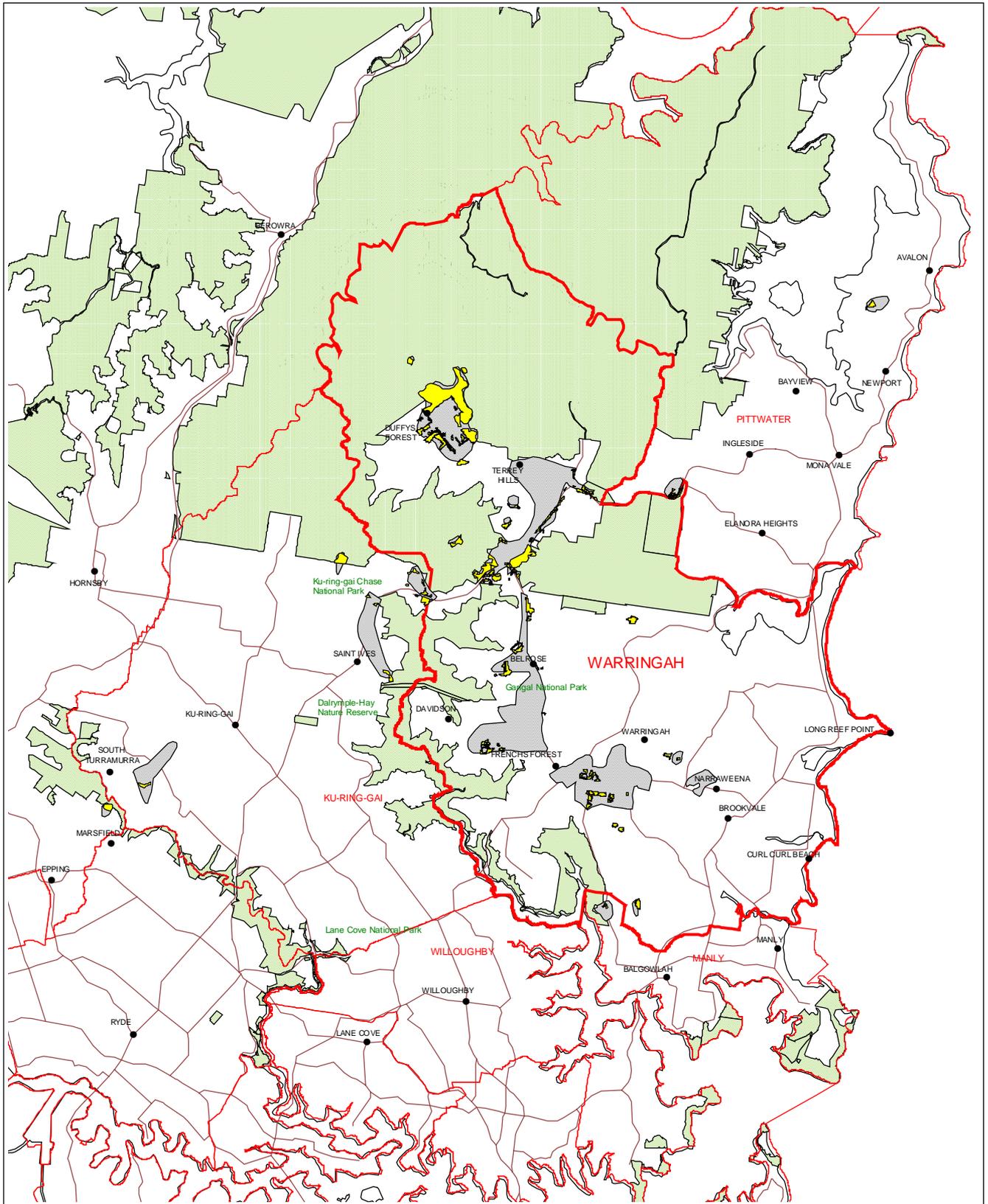
References

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.

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- Towns
- Duffys Forest - 2000 distribution
- Predicted pre 1750 Duffys Forest
- Local Government Areas
- NPWS Estate
- Main Roads
- Coast

**Duffys Forest
Ecological Community**
Predicted pre -1750
and
2000 Distribution
(Smith & Smith 2000)

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PROJECTION : AMG Zone 56



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