

Lower Hunter Spotted Gum-Ironbark Forest in the Sydney Basin Bioregion

Introduction

These guidelines provide background information to assist landholders to identify remnants of Lower Hunter Spotted Gum-Ironbark Forest. For more detailed information, refer to the NSW Scientific Committee's Determination Advice at <http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Final+determinations>



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Broad-leaved Ironbark trunk

thinning has occurred, woodland which occurs in the central to lower Hunter Valley. The community is associated with, but is not totally restricted to, the moderately fertile yellow podzolic and solodic soils of the Lower Hunter soil landscapes of Aberdare, Branxton and Neath areas.

The most dominant trees which characterise this community are Spotted Gum (*Corymbia maculata*) and Broad-leaved Ironbark (*Eucalyptus fibrosa*). Grey Gum (*Eucalyptus punctata*) and Grey Ironbark (*Eucalyptus crebra*) may also occasionally occur. The shrub layer contains a mixture of tall and medium height shrubs and the ground layer comprises a diverse mixture of grasses and herbs.

Where is Lower Hunter Spotted Gum - Ironbark Forest found?

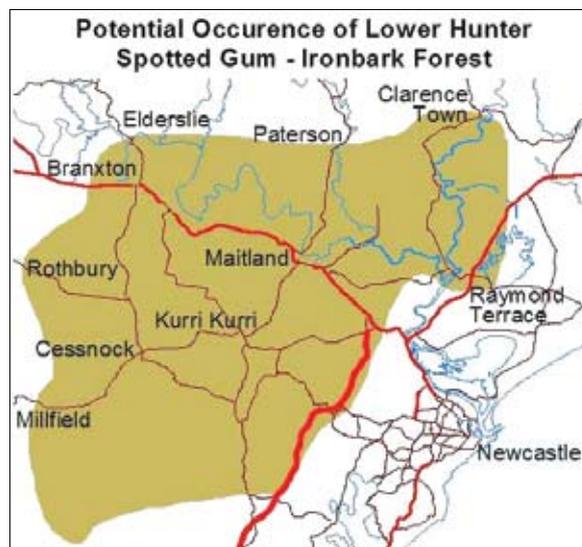
Lower Hunter Spotted Gum - Ironbark Forest is restricted to an area of some 65 km by 35 km centred on the Cessnock - Beresfield area in the central to lower Hunter Valley. It has been recorded from the Cessnock, Maitland, Singleton, Lake Macquarie, Newcastle, Port Stephens and Dungog local government areas but may occur elsewhere within the Sydney Basin bioregion.

What is an Endangered Ecological Community?

An ecological community is a group of trees, shrubs and understorey plants that occur together in a particular area. An Endangered Ecological Community is an ecological community listed under the *Threatened Species Conservation Act 1995* as being at risk of extinction unless threats affecting these areas are managed and reduced.

What is Lower Hunter Spotted Gum - Ironbark Forest?

Lower Hunter Spotted Gum - Ironbark Forest is typically an open forest, or where



Why is it important?

Only a very small percentage (about 10%) of the original extent of Lower Hunter Spotted Gum – Ironbark Forest remains. The remaining areas are small and highly fragmented occurring mostly as small patches of less than 10 hectares. Much of the remaining areas of this community are threatened by clearing, timber harvesting, coal mining, weed invasion, frequent fires, grazing and cropping. A number of threatened plants may be present in this community including Netted Bottle Brush (*Callistemon linearifolius*), Small Flower Grevillea (*Grevillea parviflora* subsp. *parviflora*) and Heath Wrinklewort (*Rutidosia heterogama*).



Portrait view of EEC

S Bell

Description of the community

The tree layer

The most common trees occurring in the canopy of Lower Hunter Spotted Gum – Ironbark Forest are Spotted Gum (*Corymbia maculata*) and Broad-leaved Ironbark (*Eucalyptus fibrosa*), while Grey Gum (*E. punctata*) and Grey Ironbark (*E. crebra*) occur occasionally. A number of other eucalypt species occur less frequently, but may be locally common.



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(*Grevillea parviflora* ssp. *parviflora*)

The shrub layer

The shrub layer of Lower Hunter Spotted Gum – Ironbark Forest is often characterised by the tall shrub Silver-stemmed Wattle (*Acacia parvipinnula*), and by the prickly shrubs, Coarse Bitter Pea (*Daviesia ulicifolia*), Blackthorn (*Bursaria spinosa*), *Melaleuca nodosa* and *Lissanthe strigosa*. Other shrubs may include *Persoonia linearis*, Narrow-leaved Orangebark (*Maytenus silvestris*) and Coffee Bush (*Breynia oblongifolia*).

The ground layer

The ground layer usually contains a diverse mixture of herbs, ferns and native grasses including Forest Fern (*Cheilanthes sieberi*), Flax Lily (*Dianella revoluta*), twiners and herbs such as *Glycine clandestina*, *Lepidosperma laterale*, *Pomax umbellata*, Mat Rush (*Lomandra multiflora*), Whiteroot (*Pratia purpurascens*), *Phyllanthus hirtellus* and a variety of native grasses such as Kangaroo Grass (*Themeda australis*), Barbed-wire Grass (*Cymbopogon refractus*), Wiry Panic (*Entolasia stricta*), and *Microlaena stipoides*.

Characteristic species

A list of trees and plants that characterise a patch of Lower Hunter Spotted Gum – Ironbark Forest is provided in the Table below. Not all the species listed need to occur at any one site for it to be considered Lower Hunter Spotted Gum – Ironbark Forest.

How can I identify an area of Lower Hunter Spotted Gum – Ironbark Forest?

The following is a list of key characteristics to help identify an area of Lower Hunter Spotted Gum – Ironbark Forest.

- Is the site in the central or lower Hunter Valley?
- Is the vegetation open forest or woodland or consist of a dense thicket of saplings?
- Does the tree layer contain Spotted Gum or Broad-leaved Ironbark?

If you answer yes to the above questions, the area is likely to be Lower Hunter Spotted Gum – Ironbark Forest.

Species List

Lower Hunter Spotted Gum – Ironbark Forest is characterised by the species listed in the Table below. The species present at any site will be influenced by the size of the site, recent rainfall or drought conditions and by its disturbance (including fire and logging) history. Note that NOT ALL the species listed below need to be present at any one site for it to constitute Lower Hunter Spotted Gum – Ironbark Forest.

Scientific Name	Common Name
Trees	
<i>Angophora costata</i>	Smooth-barked Apple
<i>Corymbia eximia</i>	
<i>Corymbia gummifera</i>	Red Bloodwood
<i>Corymbia maculata</i>	Spotted Gum
<i>Eucalyptus acmenoides</i>	White Mahogany
<i>Eucalyptus agglomerata</i>	Blue-leaved Stringybark
<i>Eucalyptus canaliculata intergrades</i>	Large-fruited Grey Gum intergrades
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark
<i>Eucalyptus fergusonii</i>	An Ironbark
<i>Eucalyptus fibrosa</i>	Red Ironbark
<i>Eucalyptus globoidea</i>	White Stringybark
<i>Eucalyptus moluccana</i>	Grey Box
<i>Eucalyptus nubila</i>	Blue-leaved Ironbark
<i>Eucalyptus paniculata</i>	Grey Ironbark
<i>Eucalyptus punctata</i>	Grey Gum
<i>Eucalyptus siderophloia</i>	Small-fruited Grey Gum
<i>Eucalyptus sparsifolia</i>	Narrow-leaved Stringybark
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Eucalyptus umbra</i>	White Mahogany
<i>Syncarpia glomulifera</i>	Turpentine
Shrubs/Small trees	
<i>Acacia parvipinnula</i>	Silver-stemmed Wattle
<i>Breynia oblongifolia</i>	Coffee Bush
<i>Bursaria spinosa</i>	Blackthorn
<i>Daviesia leptophylla</i>	
<i>Daviesia ulicifolia</i>	Gorse Bitter Pea
<i>Goodenia hederacea subsp. hederacea</i>	

Scientific Name	Common Name
<i>Grevillea montana</i>	
<i>Maytenus silvestris</i>	Narrow-leaved Orangebark
<i>Lissanthe strigosa</i>	
<i>Macrozamia flexuosa</i>	
<i>Melaleuca nodosa</i>	A tea tree
<i>Ozothamnus diosmifolius</i>	White Dogwood
<i>Persoonia linearis</i>	A Geebung
<i>Phyllanthus hirtellus</i>	
Grasses	
<i>Aristida vagans</i>	Threeawn Speargrass
<i>Cymbopogon refractus</i>	Barbed Wire Grass
<i>Digitaria parviflora</i>	Small-flowered Finger Grass
<i>Entolasia stricta</i>	Wiry Panic
<i>Microlaena stipoides</i>	
<i>Panicum simile</i>	
<i>Themeda australis</i>	Kangaroo Grass
Herbs/Ferns	
<i>Cheilanthes sieberi</i>	Forest Fern
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Dianella revoluta</i>	Flax Lily
<i>Laxmannia gracilis</i>	
<i>Lepidosperma laterale</i>	
<i>Lomandra filiformis</i>	A mat rush
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
<i>Lomandra multiflora</i>	A mat rush
<i>Pomax umbellata</i>	
<i>Pratia purpurascens</i>	Whiteroot
<i>Vernonia cinerea</i>	
Vines	
<i>Glycine clandestina</i>	
<i>Billardiera scandens</i>	Apple Berry
<i>Hardenbergia violacea</i>	False Sarsparilla

Variation in the community

At heavily disturbed sites only some of the species which characterise the community may be present. In addition, above ground individuals of some species may not be present, but the species may be represented below ground in the soil seed banks or as bulbs, corms, rhizomes or rootstocks. As such, disturbed remnants may still be considered to form part of the community. This includes sites where either the shrub layer and/or tree layer would respond, under appropriate management, to natural regeneration (i.e. where the natural soil and associated seed bank are still mostly intact).



Melaleuca nodosa

What does this mean for my property?

As a listed Endangered Ecological Community under the *Threatened Species Conservation Act 1995*, Lower Hunter Spotted Gum – Ironbark Forest has significant conservation value and some activities may require consent or approval. Please contact the Department of Environment and Climate Change (DECC) for further information.

Determining the conservation value of remnants

The degree of disturbance (i.e. condition) of many remnants can vary, from almost pristine to highly modified. It is important to note that even small patches or areas that have had past disturbance such as selective logging, fire or grazing may still be important remnants of Lower Hunter Spotted Gum – Ironbark Forest and be considered the EEC. Where difficulties arise when faced with decisions on whether particular sites are Lower Hunter Spotted Gum – Ironbark Forest, expert advice may be needed.

Retaining mature native vegetation or EECs for conservation purposes may attract incentive funding. Funding is allocated to landholders by the local Catchment Management Authority (CMA) according to the priorities set out in their Catchment Action Plan and strategies. For more information contact your local CMA or email: info@nativevegetation.nsw.gov.au

For further assistance

This and other EEC guidelines are available on the DECC website at www.environment.nsw.gov.au

The references listed below also provide further information on EECs.

- NSW Scientific Committee Determinations: <http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Final+determinations>
- Department of Environment and Climate Change (NSW) Threatened Species profiles: <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/index.aspx>
- Bell, S. and Driscoll, C. (2007) Vegetation of the Cessnock-Kurri Region, Cessnock LGA, New South Wales: Survey, Classification and Mapping. Draft, V2. for Environment Protection and Regulation Division, Department of Environment and Climate Change, Newcastle.
- Botanic Gardens Trust plant identification assistance: http://www.rbgsyd.nsw.gov.au/information_about_plants/botanical_info/plant_identification
- Brooker, M. and Kleinig, D. (1990) Field Guide to Eucalypts of South-eastern Australia, Vol 2. Inkata, Melbourne.
- Harden, G. (ed) Flora of NSW Vols 1 – 4 (1990-2002). NSW University Press.
- Harden, G., McDonald, W. and Williams, J. (2006) Rainforest Trees and Shrubs – A Field Guide to their identification. Gwen Harden Publishing, Nambucca Heads.



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Spotted Gum Bark



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Netted Bottle Brush (*Callistemon linearifolius*)

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