



White Box – Yellow Box – Blakely's Red Gum  
grassy woodlands and derived native grasslands



Nationally threatened species and ecological communities

## What are the Box–Gum Grassy Woodlands and Derived Grasslands?

This ecological community can occur as either a woodland or a derived grassland (a grassy woodland from which the trees have been removed). It has a ground layer of native tussock grasses and herbs, and a sparse, scattered shrub layer. White Box (*Eucalyptus albens*), Yellow Box (*E. melliodora*) or Blakely's Red Gum (*E. blakelyi*) dominate the ecological community, where a tree layer still occurs. Photos of these dominant species appear below. Some of the other tree species associated with the ecological community are listed opposite.

Sites dominated by other trees species that do not have Yellow Box, White Box or Blakely's Red Gum as co-dominants are not considered to be part of the ecological community, except in the Nandewar Bioregion. In the Nandewar bioregion (see map on page 4), Grey Box trees (*Eucalyptus microcarpa* or *E. moluccana*) may also be dominant or co-dominant in the ecological community.

### Some other tree species that may occur in association with the ecological community

- Western Grey Box (*Eucalyptus microcarpa*)
- Coastal Grey Box (*E. moluccana*)
- Fuzzy Box (*E. conica*)
- Apple Box (*E. bridgesiana*)
- Red Box (*E. polyanthemos*)
- Red Stringybark (*E. macrorhyncha*)
- Long-leaved Box (*E. goniocalyx*)
- New England Stringybark (*E. calignosa*)
- Brittle Gum (*E. mannifera*)
- Candlebark (*E. rubida*)
- Argyle Apple (*E. cinerea*)
- White Cypress Pine (*Callitris glaucophylla*)
- Black Cypress Pine (*C. enderlicheri*)
- Kurrajong (*Brachychiton populneus*)
- Drooping She-oak (*Allocasuarina verticillata*)

### Blakey's Red Gum



Blakeys Red Gum: juvenile (P. Ormay © ANBG) and mature (P. Komidar)

### White Box



White Box: juvenile (S. Maas) and mature (T. McLeish)

### Yellow Box



Yellow Box: juvenile (P. Ormay © ANBG) and mature (H. Mills)



Box-Gum Woodlands of high (left), moderate (centre) and poor (right) quality condition (H. Mills).

### Why are the Box–Gum Grassy Woodlands and Derived Grasslands important?

This ecological community provides important habitat for a large number of plants and animals, including rare and threatened species such as Superb Parrots, Regent Honeyeaters and Squirrel Gliders.

More than 400 native plant species have been recorded as occurring within the ecological community. Most of these species are grasses and herbs that occur in the ground layer, which is why the ecological community can exist in the absence of trees. The ground layer species include grasses, sedges, pea plants, daisies and lilies, amongst many others. Kangaroo Grass (*Themeda triandra*, also known as *Themeda australis*) and Snow Grass (*Poa sieberiana*) were originally the dominant grasses across a large part of the ecological community’s range. For a full list of species that can be found in the ecological community visit:

[www.deh.gov.au/box-gum](http://www.deh.gov.au/box-gum) or call 1800 803 772.



Yellow Box flowers (P. Komidar)

### Why is this ecological community listed as endangered under the Environment Protection and Biodiversity Conservation Act?

The Box–Gum Grassy Woodlands and Derived Grasslands were formerly widespread along the western slopes and tablelands of the Great Dividing Range, throughout southern Queensland, western New South Wales, the Australian Capital Territory and Victoria. Now less than 5 per cent remains in good condition and much of this occurs in small isolated patches. The remaining patches are still being lost due to clearing, weed invasion and overgrazing – hence the ecological community’s listing under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). You can read more about these threatening processes at [www.deh.gov.au/box-gum](http://www.deh.gov.au/box-gum).



Derived grassland (S. Maas)

## What is the range in which patches of the ecological community occur?



Yam Daisy with native bee and fly (H. Mills)



## How can I tell if I have the listed ecological community on my property?

If you have a patch of the listed ecological community on your land, congratulations! Due to the vulnerability of this ecological community to overgrazing, clearing and weed invasion, it only remains on land that has been well managed.

Many areas that were formerly part of the ecological community have been excluded from the listed ecological community (see flowchart), as they are now heavily degraded and no longer retain sufficient values to merit protection under the EPBC Act. If you have a patch of woodland on your land that is too degraded to be part of the listed ecological community, but still retains some of the values of the ecological community, you are encouraged to manage the area to maintain and enhance those values.

Areas that are part of the listed ecological community must have either:

- an intact tree layer and a predominantly native ground layer; or
- an intact native ground layer with a high diversity of native plant species but no remaining tree layer.

Shrubs can occur naturally in grassy woodlands and form an important part of the ecological community, providing habitat for many birds and insects. However, a patch that has a continuous shrub layer of more than 30 per cent cover is no longer considered to be a grassy woodland and is excluded from the listed ecological community.

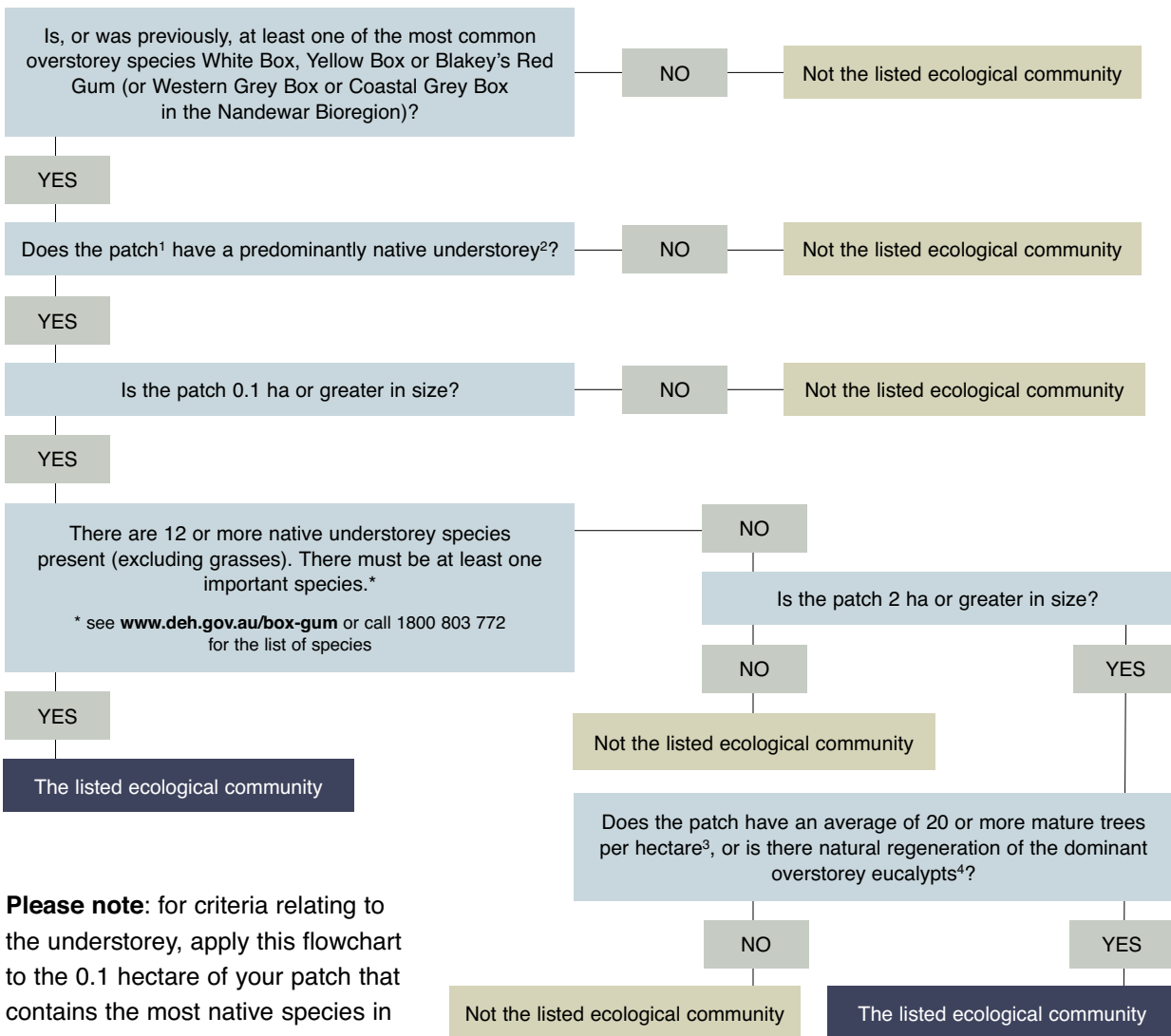
The following flow chart will help you determine if an area on your land is part of the ecological community.

Giant Bullfrog (C. Slatyer)



The flowchart below represents the lowest condition at which patches are included in the listed ecological community. This is not the ideal state of the ecological community. Large patches, those that link remnants in the landscape, those that occur in highly cleared areas, those that contain rare, declining or threatened species, and those that represent the entire range of the ecological community, are important for the long-term future of the ecological community.

### Determining if your land has an area of the listed ecological community



**Please note:** for criteria relating to the understorey, apply this flowchart to the 0.1 hectare of your patch that contains the most native species in the ground layer.

<sup>1</sup> Patch – a patch is a continuous area containing the ecological community (areas of other ecological communities such as woodlands dominated by other species are not included in a patch). In determining patch size it is important to know what is, and is not, included within any individual patch. The patch is the larger of:

- an area that contains five or more trees in which no tree is greater than 75 m from another tree, or
- the area over which the understorey is predominantly native.

Patches must be assessed at a scale of 0.1 ha (1000m<sup>2</sup>) or greater.

<sup>2</sup> A predominantly native ground layer is one where at least 50 per cent of the perennial vegetation cover in the ground layer is made up of native species. The best time of the year to determine this is late autumn when the annual species have died back and have not yet started to regrow. (At other times of the year, you can determine whether something is perennial or not if it is difficult to pull out of the soil. Annual species pull out very easily.)

<sup>3</sup> Mature trees are trees with a circumference of at least 125 cm at 130 cm above the ground.

<sup>4</sup> Natural regeneration of the dominant overstorey eucalypts when there are mature trees plus regenerating trees of at least 15 cm circumference at 130 cm above the ground.

## Can degraded areas be rehabilitated?

Many areas that were formerly part of the ecological community are now too degraded to be included in the listed ecological community. Many of these degraded areas may respond to assisted regeneration, and may still provide important habitat for birds and other animals. Degraded areas that should be given priority for regeneration include:

- large patches,
- patches containing mature trees (especially those with hollows),
- areas of vegetation that link together patches of the ecological community in the landscape,
- patches that occur in those regions in which the ecological community has been most heavily cleared and degraded, and
- patches that contain rare, declining or threatened species.

## What is being done to assist the recovery of the Box–Gum Woodlands and Derived Grasslands?

The good news is that community and government awareness of the plight of this ecological community is increasing. Community groups and landholders are getting together to conserve and rehabilitate patches of Box–Gum Woodlands and Derived Grasslands. More than \$3,500,000 of the Australian Government's Natural Heritage Trust (NHT) has been spent so far on projects to manage, conserve and rehabilitate patches of Box–Gum Woodlands and Derived Grasslands.

One of the NHT-funded initiatives has been the establishment of Conservation Management Networks (CMN). Two networks have been set up in NSW and the ACT (see details below) to support landholders and community groups in the management of their land and to share knowledge and to provide a link between researchers, government and land managers.

>> To contact the Grassy Box Woodlands Conservation Management Network or the Southern Tablelands Grassy Ecosystems Conservation Management Network call the CMN Project officers on 02 6298 9700.



Showy Parrot-pea (P. Komidar)

**Kyamba Travelling Stock Reserve** contains Box–Gum Grassy Woodlands, and is a component of the Grassy Box Woodlands CMN. The reserve is leased to a neighbouring landholder to run sheep in order to manage annual weeds, maintain inter-tussock spaces in the ground layer, and control the regeneration of the overstorey. To achieve these management goals, but not compromise the biodiversity of the site, only a small number of sheep are grazed on the property for the majority of the year, with a short episode of heavy grazing in autumn/winter, after the perennial native grasses have dropped their seed.



CMN property near Cootamundra (T. McLeish).

## What can I do to assist the recovery of the Box–Gum Grassy Woodlands and Derived Grasslands?

If you manage either a patch of the listed ecological community, or a degraded area, funding may be available to assist you to undertake projects to maintain and improve your patch.

For information about funding available for projects to recover threatened species and ecological communities, see:

- Threatened Species Network Community grants [www.wwf.org.au/tsn](http://www.wwf.org.au/tsn)
- Australian Government Envirofund [www.nht.gov.au/envirofund](http://www.nht.gov.au/envirofund)

To assist in the recovery of the ecological community you can:

- protect patches of the listed ecological community through the development of conservation agreements and covenants,
- protect patches from weeds by preventing soil disturbance in and around patches, and through the speedy eradication of any new invasion,
- avoid the use of fertilisers in or near patches,
- avoid planting trees in very small derived grassland sites, as they may reduce the floral diversity through competition for light, nutrients and water,
- expand patches by planting/seeding at the edges, rather than within the patches,
- expand and connect existing patches,
- implement strategic grazing, such as by resting pastures at appropriate times, e.g. when native perennial grasses are seeding, and
- undertake burning or slashing where native tussock grasses have built up to a high level to open inter-tussock spaces for tree seedlings, ground layer species and shrubs to establish.

## What does listing of the Box–Gum Woodlands and Derived Grasslands under the EPBC Act mean for land managers?

Listing means that any new or intensified activities that are likely to have a significant impact upon the listed ecological community should be referred to the Australian Minister for the Environment and Heritage for assessment and approval.

Examples of activities that could have a significant impact include:

- clearing trees or understorey vegetation in patches of the ecological community or vegetation next to the ecological community,
- inappropriate grazing regimes (see discussion below),
- introducing potentially invasive pasture species, such as *Phalaris*, into the proximity of patches,
- introducing or increasing the amount of nutrients in patches, such as through fertiliser run-off or spray drift, and
- firewood collection and inappropriate burning practices.



Top to bottom:  
High quality understorey (J. Vranjic),  
Fringed Lily (P. Komidar), Regent  
Honeyeater (G. Dabb), Daphne  
Heath (P. Komidar), Wallaby Grass  
(P. Komidar).

# Nationally threatened species and ecological communities



Above (top to bottom): Billybutton with beetle (P. Komidar), Box-Gum woodland (J. Vranjic), Kangaroo Grass with wasp (P. Komidar), Eastern Stone Gecko (C. Slatyer).

Front cover (clockwise from top left): Common Buttercup (S. Maas), Box-Gum woodland (H. Mills), Early Nancy (P. Komidar), Superb Parrot (G. Dabb), Clustered Everlasting (P. Komidar).

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It is important to note that the management of areas adjacent to a patch of the ecological community can indirectly impact upon the ecological community itself.

The grazing of domestic stock does not necessarily degrade the Box-Gum Woodlands and Derived Grasslands and can in fact provide a useful management tool for patches. However, if grazing pressure is increased by running more stock, changing the time of year of grazing or increasing the time stock spend in a patch then a referral may be required.

The EPBC Act allows for some exemptions to the requirement for assessment and approval. This means that some activities may not need to be referred for an assessment or approval under certain conditions. Information on exemptions can be found online at [www.deh.gov.au/epbc/publications/exemptions.html](http://www.deh.gov.au/epbc/publications/exemptions.html).

## What is the process if I need to refer a project for approval?

The process for making a referral under the EPBC Act is simple. If you think your activity is likely to have significant impact, you need to complete a referral form, which is available at [www.deh.gov.au/epbc/assessmentsapprovals/referrals](http://www.deh.gov.au/epbc/assessmentsapprovals/referrals). The Department will advise you within 20 business days whether or not an approval from the Minister is required.

## Where can I go for further information?

There are a number of sources of information on grassy woodland management and conservation. Some good starting points are:

- Sharp, S., Dorrrough, J., Rehwinkel, R., Eddy, D. and Breckwoldt, A., 2005. Grassy Ecosystems Management Kit: A Guide to Developing Conservation Management Plans. Environment ACT, Canberra.
- McIntyre, S., McIvor, J.G. and Heard, K.M., 2002. Managing and Conserving Grassy Woodlands. CSIRO, Collingwood.
- Grassy Box Woodland Conservation Management Network web site [www.gbwcmm.net.au](http://www.gbwcmm.net.au).

For general information:

- EPBC Act web site [www.deh.gov.au/epbc](http://www.deh.gov.au/epbc).
- Farmers and the EPBC Act – Information and relevant links [www.deh.gov.au/epbc/farmers/index.html](http://www.deh.gov.au/epbc/farmers/index.html)
- Department of the Environment and Heritage Community Information Unit, email [ciu@deh.gov.au](mailto:ciu@deh.gov.au) or free-call 1800 803 772.