

Box – Gum Grassy Woodlands and Derived Grasslands

A nationally threatened vegetation community found in the Goulburn Broken

About this fact sheet

This fact sheet addresses the following questions regarding the vegetation community Box-Gum Grassy Woodlands and Derived Grasslands including:

- What is it?
- Where is it?
- Why is it important?
- How can I protect and manage it?

Issues covered include the community description, distribution, conservation values, protection measures, threatening processes and management.

Introduction

Box-Gum Grassy Woodlands and Derived Grasslands (BGGW) is an open woodland which was once widespread on the inland slopes of Australia, ranging from Victoria through to Queensland. The vegetation community is considered endangered and many threatened flora and fauna species are closely associated with this community.



Photo: Rowhan Marshall

Boxwood Reserve, a quality BGGW site with moderate White Box regeneration and groundcover comprising mainly native grasses.



Photo: Rowhan Marshall

Kangaroo Grass (*Themeda triandra*) is a common native grass associated with BGGW.

Community Description

The BGGW vegetation community can occur as a woodland or a derived grassland (where trees have been removed). The dominant tree is, or was, one or a combination of White Box (*Eucalyptus albens*), Yellow Box (*Eucalyptus melliodora*), and Blakely's Red Gum (*Eucalyptus blakelyi*). Red Box (*Eucalyptus polyanthemos*) and Red Stringybark (*Eucalyptus macrorhyncha*) may also occur. Shrubs if present are generally scattered and can include Wattles (*Acacia spp.*), Guinea-flowers (*Hibbertia spp.*), and Bush Pea (*Pultenaea spp.*).

Native herbaceous species dominate the ground cover. Grasses that commonly occur in this community include; Kangaroo Grass (*Themeda triandra*), Tussock Grasses (*Poa spp.*), Wallaby Grasses (*Austrodanthonia spp.*), Wheat-grass (*Elymus scaber*), Wire-grasses (*Aristida spp.*), and Spear Grasses (*Austrostipa spp.*).

Other herbs present can include; Bulbine Lily (*Bulbine bulbosa*), Rock fern (*Cheilanthes sieberi*), Common Everlastings (*Chrysocephalum apiculatum*), and Matt-rush (*Lomandra spp.*).

This community largely equates to the Ecological Vegetation Class (EVC) *Grassy Woodland* in the North East.

Box-Gum Grassy Woodlands and Derived Grasslands

Distribution

The BGGW was formerly widespread and occurred within a band along the western slopes of the Great Dividing Range from southern Queensland to central Victoria and an outlier in East Gippsland.



Previous extent of Box-Gum Grassy Woodlands and Derived Grasslands.

The community occurs on hill slopes and gently undulating country at elevations between 150 and 550 metres above sea level. In North East Victoria it occurs on granitic or metamorphic geologies on moderately fertile clay loam soils where average annual rainfall is between 500 and 800mm per annum.

The land on which BGGW is found is suitable for agricultural activities, which has resulted in the community becoming highly depleted, fragmented and degraded.

The Goulburn Broken catchments contain a number of quality remnant BGGW sites, which display considerable diversity in size and structure. Investigations to date have located 31 quality sites around the following localities:

- Benalla, Warrenbayne, Baddaginnie.
- Glenrowan, Thoona, Dookie.
- Euroa, Violet Town.
- Mansfield, Bonnie Doon.
- Alexandra, Gobur.

The condition of the vegetation at these sites has been assessed using the *Habitat Hectare Methodology*.

As resources become available the Department of Sustainability and Environment (DSE) will provide additional information on this community, including the location and status of other key remnants.

Conservation values

Box-Gum Grassy Woodlands and Derived Grasslands are a highly depleted and fragmented vegetation type, with less than 5 % of the community remaining in near original condition.

All patches are critical to the survival of this community, as so few relatively undisturbed remnants remain. Even degraded or treeless remnants are particularly important as habitat for fauna, for conserving genetic diversity in many woodland species, and for their contribution to landscape values

A number of threatened plant and animal species, and the endangered *Temperate Woodland Bird Community* is associated with this grassy woodland ecosystem.

Threatened birds such as the Regent Honeyeater and Swift Parrot feed upon the abundant White Box nectar during the winter months. The Squirrel Glider and Brush-tailed Phascogale utilise hollows provided by mature Box and Gum trees, and the ground cover of native grasses and fallen timber can provide important habitat for the threatened Striped Legless Lizard and Golden Sun Moth.



Swift Parrot
Photo: Mike Carter



Brush-tailed Phascogale
Photo: Rowhan Marshall

Box-Gum Grassy Woodlands and Derived Grasslands

Protection measures

In addition to the normal vegetation clearing controls in the Victorian Planning Provisions (VPP's see Clearing Controls), the special conservation values of Box-Gum Grassy Woodlands and Derived Grasslands are recognised in Federal Government legislation.

Environment Protection and Biodiversity Conservation (EPBC) Act 1999

Box—Gum Grassy Woodlands and derived Grasslands (formerly Grassy White Box Woodland) are listed as **threatened** under the Environmental Protection and Biodiversity Conservation Act (EPBC Act). Its conservation status is *Critically Endangered*.

The EPBC Act regulates actions that may result in significant impact on this listed ecological community.

Examples of these actions may include:

- Clearing trees or understorey vegetation in or next to the community.
- Inappropriate grazing and burning regimes.
- The introduction of potentially invasive pasture species, in close proximity to patches of vegetation.
- Firewood collection
- Use of chemical fertilisers in patches which increase the nutrient levels.

It is an offence to undertake such actions without obtaining prior approval from the Australian Minister for the Environment and Heritage.

To obtain a referral form go to:

www.deh.gov.au/epbc/assessmentsapprovals/referrals

BGGW equates to the ecological vegetation class (EVC) *Grassy Woodland*, which has a Conservation Status of **endangered** in the bioregions of North Eastern Victoria.



Photo: Rowhan Marshall

Laneway near Violet Town with mature hollow bearing White Box trees and regeneration. Degraded ground cover comprising mainly annual pasture grasses.

Clearing Controls

Since 1989 a planning permit is required, should you propose to **remove, destroy or lop** native vegetation. This applies to clearing all native vegetation including trees, shrubs, groundcovers and grasses, unless an exemption exists.

Before removing any native vegetation, please consult a Planning Officer from your Local Government Authority or discuss your plans with a regional office of the DSE.

EPBC Assessments

If you are proposing works which may have a **significant impact** as defined by the EPBC Act 2000, you should contact the Department of Environment and Heritage (DEH).

Further information regarding the EPBC Act and making a referral can be obtained by contacting www.deh.gov.au/epbc or on (02) 6274 1111

Threatening processes

Invasion by weeds

Weeds have invaded all remnants of BGGW, and it is likely that all will require some degree of active weed management to ensure long-term conservation.

Significant weeds that affect BGGW include:

- Annual grasses (Wild oats, Rye-grasses, Onion Grass, Quaking Grass)
- Annual herbs (Patterson's Curse, Thistles)
- Perennial grasses (Phalaris, Chilean Needle Grass)
- Perennial herbs (St John's Wort)

Landscape processes

- Soil salinity, a result of widespread clearing of trees and deep rooted perennial grasses.
- Changes in landuse, including the introduction of exotic pasture and clearing for rural residential subdivisions.
- Fragmentation causing loss of genetic diversity, will reduces long-term viability of the community.
- Removal of standing or fallen timber significantly reduces habitat for many animals and has been linked to the loss of woodland birds.

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Threatening processes (cont.)

Inappropriate management practices

- Inappropriate grazing regimes. Sites that have been heavily grazed have a low native species diversity and are dominated by exotic species.
- Inappropriate fire/slashing regimes can promote weeds and reduce habitat value.
- Increased soil nutrients resulting from fertilizer applications can result in loss of native groundcover.

Site disturbance

- Soil disturbance from machinery and pest animals can promote the invasion of weeds.



This image depicts a degraded Grassy Woodland. Impacts include lack of dead fall, intensive grazing and absence of native vegetation recruitment.

Management

Management should be an adaptive process and each site should be assessed on an individual basis. Threats need to be prioritised and management actions implemented according to available resources.

Management options could include:

- Total or seasonal exclusion of stock.
- Strategic burning/slashing/grazing at appropriate times can assist controlling weeds and pasture grasses and create opportunities for native seed stock to germinate and re-establish.
- Signage to promote the sites values and constraints, particularly on public land.
- Incorporate information on sites into organisational databases and plans. For LGAs this includes roadside management plans and planning scheme overlays.
- Provision of information and incentives such as: species lists, management guidelines; fencing, weed/pest animal control, revegetation and conservation covenants by various government, non-government and private organisations.
- In a broader landscape context these sites should be managed to provide connectivity to other remnants and core areas to promote biodiversity.

Related Information

Managing your patch of bush - EVC descriptions and Revegetation Guide for the Goulburn Broken Catchment at: www.gbcma.vic.gov.au

EVC Bioregional Conservation Status information and Biodiversity Action Plans by Bioregion at: www.dse.vic.gov.au under 'Conservation and Environment'.

Information provided by Department of Environment and Heritage at: www.deh.gov.au/biodiversity/threatened/publication/box-gum/index.html



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