Action statement

Flora & Fauna Guarantee Act 1988

Grey Box - Buloke Grassy Woodland Community

Nomination number: 434

Action statements are developed under the *Flora and Fauna Guarantee Act 1988* (FFG Act). Their preparation and implementation complement the FFG Act strategy *Protecting Victoria's Environment – Biodiversity 2037* and its vision that "Victoria's biodiversity is healthy, valued and actively cared for".

Threatened Community Distribution

Grey Box remanent. Image by Nathan MacDonald

The distribution map displays the indicative range of Grey Box - Buloke Grassy Woodland based on locations that share attributes of the listed community description in Victoria.

Conservation Status

The Grey Box - Buloke Grassy Woodland Community: Threatened in Victoria

Listed under the FFG Act in 2000 as the following criteria were met:

Criterion 2.1 The community is in a demonstrable state of decline which is likely to result in extinction.

Criterion 2.2 The community is significantly prone to future threats which are likely to result in extinction.

Sub-Criterion 2.2.1 The community is very rare in terms of the total area it covers, or it has a very restricted distribution, or it has been recorded from only a few localities.

Related national listings

An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed ecological community that shares attributes with this threatened community was listed in 2010 as 'Endangered' and can be found here:

- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (environment.gov.au)
- Conservation Advice: Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-east Australia (environment.gov.au)

Description

Grey Box – Buloke Grassy Woodland Community is a tall, mainly grassy, woodland to a low open woodland which ranges from having an overstorey of Grey Box (*Eucalyptus microcarpa*) with or without Buloke (*Allocasuarina luehmannii*) to being dominated by Buloke, with or without Grey Box. A shrub layer is generally lacking although Golden Wattle (*Acacia pycnantha)* is present at several sites.

The ground layer is dominated by grasses including Wallaby grasses (*Rytidosperma* spp.), Windmill-grass (*Chloris truncata*), Common Wheat Grass (*Anthosachne scabra*) and in some cases Kangaroo Grass (*Themeda triandra)* and Tussock-grass (*Poa sieberiana)*.

The threatened community is found on flat or very gently undulating plains in northern Victoria and a few places in central and south-west Victoria. The FFG Act listed Victorian Temperate-Woodland Bird Community may co-occur with this threatened community.

A more detailed description (including some of the component flora species which make up the threatened community), distribution and references are provided in the threatened community listing recommendation:

- Grey Box Buloke Grassy Woodland.

Associated and component threatened species

The following FFG Act listed threatened species are associated with, or are components of the threatened Grey Box – Buloke Grassy Woodland Community in Victoria:

Plants: Buloke (*Allocasuarina luehmannii*), Buloke Mistletoe (*Amyema linophyllum* ssp*. orientale*), Clover Glycine (*Glycine latrobeana*), Hairy-tails (*Ptilotus erubescens*), and Inland Pomaderris (*Pomaderris paniculosa* ssp. *paniculosa*).

Birds: Glossy Black-Cockatoo (*Calyptorhynchus lathami*), Grey-crowned Babbler (*Pomatostomus temporalis*), Red-tailed Black-Cockatoo (south-eastern) (*Calyptorhynchus banksii graptogyne*), Regent Honeyeater (*Anthochaera phrygia*), Regent Parrot (*Polytelis anthopeplus*), Superb Parrot (*Polytelis swainsonii*), Swift Parrot (*Lathamus discolor*).

Mammals: Brush-tailed Phascogale (*Phascogale tapoatafa*), Krefft's Glider (*Petaurus notatus*).

Action statements for associated listed threatened species can be found here: Action statements (environment.vic.gov.au)

Threats

Threats listed below have been identified through expert consultation and published literature and are listed in approximate order of severity of risk to the threatened community.

Threat	Description
Loss, degradation or modification of the threatened community	
Historic native vegetation clearing or damage	• The threatened community has been subject to extensive historic losses and fragmentation because of land use change, construction, development and/or infrastructure leading to alteration of vegetation extent and condition.
Increased biomass	• Excess growth of either native or introduced plant species (particularly introduced grasses) can change the structure and composition of the threatened communities.
Increasing salinity	• Increasing groundwater salinity can be toxic to plants, and cause loss of important habitat features including large and old hollow-bearing trees.
Land use change	• Land use changes, such as new urban development and changes in agricultural or horticultural practices that alter vegetation extent and condition, contribute to further loss and degradation of the threatened community.

Threat	Description
Livestock	• Livestock can cause ecosystem degradation through the combined effects of herbivory, trampling, soil compaction, soil erosion, reduced native plant biomass and recruitment and excess nutrient loads. Livestock can also spread weed seeds, leading to weed incursion.
Reduced connectivity	• Loss of connectivity between remnant patches of the threatened community reduces dispersal of organisms and genetic exchange between native species.
Species richness declines	• Local extinctions of component species, such as key native grasses, has resulted in a cascade of effects and triggered further declines in composition, structure, and ecological function.
Introduced species	
Introduced herbivores	• Introduced herbivores, including feral pigs (*Sus scrofa*), feral goats (*Capra hircus*), hares (*Lepus europaeus*) and rabbits (*Oryctolagus cuniculus*), may degrade the threatened community through herbivory, trampling, pugging of wet soils, increasing nutrient loads, reducing native plant recruitment and enabling introduced predator and introduced plant species access.
Introduced plants	• Introduced plants change the structure and composition of the vegetation community, impacting the assemblage of species and ecosystem function.
Fire	
Altered fire regimes	• A hotter, drier climate may increase the likelihood, frequency and/or intensity of fire impacting the threatened community with the potential to reduce extent and/or condition of the community. • Infrequent and/or too frequent fire may lead to population decline of component flora species and alter vegetation structure and condition, including increased density of woody native shrubs and/or trees. • Planned burns that are more frequent than the component species' tolerable fire interval can lead to seedbank exhaustion, reduced recruitment and mortality of recruits. Burns can also result in death of obligate seeding plants, affecting ecosystem structure and function.
Fire management activities	• Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may remove the threatened community, cause mortality of individuals, and reduce regeneration.
Human disturbance	
Construction, development and / or infrastructure	• Construction, development and maintenance of urban areas, utilities and infrastructure may result in direct removal of the threatened community or component species or cause indirect impacts, such as through increased risk of weed and pathogen incursion, leading to loss of ecosystem structure and function.
Emergency response activities	• Some emergency response activities (e.g., vegetation clearance and/or earthworks, application of fire retardant or pesticides) can inadvertently lead to alterations in vegetation structure and composition, and ecological function.
Firewood collection	• Firewood collection can result in disturbance and damage to the threatened community's habitats and result in loss of critical components such as large, mature trees and fallen timber.

Threat	Description
Illegal take or clearing	• Illegal removal of components or areas of the threatened community contributes to loss of extent and ecosystem degradation.
Road and track construction or maintenance	• Roadside areas of the threatened community are vulnerable to loss or damage as a result of direct impacts of road construction and maintenance works (e.g., grading, mowing, slashing, and lopping) and indirect impacts from associated run-off, soil erosion, and potential weed and pathogen introduction.
Climate change	
Altered flowering or germination	• Climate change may affect the timing and success of flowering and germination events of component flora, thus impacting species composition within the threatened community.
Altered rainfall and temperature regimes	• Climate change, increasing temperature and altered rainfall are likely to magnify existing threats and may reduce the extent or distribution of the threatened community and alter vegetation, composition, structure and function.
Increased frequency and/or length of droughts	• Drying and warming of the environment, including droughts, may to lead to changes in threatened community composition and structure, and impact recruitment and/or mortality rates.
Temperature extremes	• Climate change may increase the frequency and duration of heat-wave events, leading to increased risk of mortality of component species of the threatened community.
Pollutants and toxicants	
Nutrient enrichment	• Nutrient enrichment alters soil chemistry, disadvantaging indigenous species and facilitating invasion by introduced plants, alters ecosystem structure, composition and function, leading to reduced extent and/or condition of the threatened community.
Pesticide use	• Pesticides (including chemicals used to control plants, fungi, or invertebrates) can impact recruitment and/or mortality rates, may alter habitat or ecosystem function, and may impact persistence of component species.
Knowledge	
Lack of awareness or knowledge	• Land managers, decision makers and/or community members unaware of the significance, management needs, or efforts underway to conserve the threatened community may undertake or allow actions that inadvertently cause harm.

Conservation Objectives

Conservation objectives are informed by the criteria for listing the threatened community on the FFG Threatened List. This provides a framework to understand how we can work towards conservation and recovery of the threatened community and subsequent removal from the Threatened list.

The key objectives of this action statement are to:

- Protect and manage high value and/or significant areas and sites of the threatened community.
- Minimise further decline and increase the extent and improve the condition of the threatened community to improve connectivity and increase resilience.
- Improve knowledge and understanding of the distribution, condition, emerging threats, and conservation management requirements of the threatened community.

- Support community participation and improve awareness for the protection and restoration of the threatened community, component species and associated threatened species.

Conservation Actions

The actions below have been identified through expert consultation and published literature. Actions are grouped by types of activity and then listed alphabetically. This is to enable all interested parties to understand related or interconnected activities and prioritise based on their own context, capacity, and capability. Landscape scale actions may mitigate threats for adjacent threatened communities and other native species. For more information on where to undertake actions that benefit the threatened community and multiple species, please refer to NatureKit.

Action	Description
Assessment and research	
Research	• Improve understanding of management requirements for the threatened community and develop guidelines for land managers to support site restoration. • Investigate and determine a suitable fire regime that meets the threatened community's ecological requirements and promotes its recovery. • Investigate and monitor the impacts of known threats and potential management actions.
Survey and monitoring	• Monitor the threatened community at known sites and other suitable locations to assess species composition, condition, threats, management requirements, and changes in these measures over time. • Undertake field assessments to support preparation of, or review and update, maps of the extent and condition of the threatened community.
Collaboration and engagement	
Community engagement and awareness	• Continue to identify, promote and support opportunities for community involvement in conservation efforts to assist recovery of this threatened community. • Increase landholder awareness of the threatened community, its ecological needs and impacts of activities such as cropping and livestock grazing. Provide guidance on the changes to management that may be required to support recovery. • Install signs to inform the community of the presence and importance of the threatened community. • Promote citizen science for information gathering to inform improved management of the threatened community. • Work with land managers and planning authorities to confirm the presence, condition and distribution of the threatened community.
Conservation planning and protection	
Conservation management planning	• Determine areas and sites of highest value or significance and prioritise protection, management, restoration and/or revegetation. • Review conservation management plans, and update as needed, to support recovery of the threatened communities including for priority areas or sites. • Investigate local government provisions and planning tools to support conservation and management of the threatened communities.

Action	Description
Permanent protection *	• Investigate incentives, voluntary agreements, covenants, and other permanent protection arrangements to enable protection and restoration of priority sites.
Protect remnant areas	• Ensure that the threatened communities' distribution data and ecological information are available and considered in planning for developments, land use changes, infrastructure, and utilities planning and maintenance. Ensure that the cumulative impact of previous loss and degradation is factored into consideration of potential losses. • Support the development of coordinated programs to encourage protection and management of priority sites of the threatened community.
Threat management	
Avoid and/or mitigate impacts associated with fire management	• Ensure that the threatened community's distribution data and ecological information is available and considered in fire management activities. • Undertake biodiversity values check prior to fuel management in areas where the threatened community occurs, to confirm treatment suitability and timing.
Biomass management	• Manage biomass, such as dense regrowth of trees or shrubs and/or dense grass cover, in priority sites as required to enhance the threatened community's structure and composition using ecologically and culturally appropriate means.
Compliance and enforcement	• Undertake risk-based compliance and enforcement activities to limit the impacts of identified threats to the threatened community, including unauthorised removal of areas or component species and/or habitat elements.
Control introduced herbivores *	• Implement and maintain effective control of introduced herbivores, domestic and feral, in priority areas.
Control introduced plants *	• Implement and maintain effective control of introduced plants in priority areas and undertake revegetation with appropriate native species, where required.
Ecological fire regime *	• Implement fire management actions that promote an appropriate fire regime for the threatened community, including supporting fire informed by cultural knowledge.
Manage impacts from natural disaster events	• Identify and implement recovery actions for areas of the threatened community impacted by natural disaster events and/or emergency response (e.g., significant bushfire or flood events).
Manage road and track works	• Protect the threatened community from disturbances caused by road, track, and path construction and maintenance.
Restoration and/or revegetation	• Restore and/or revegetate priority areas and buffers to improve ecosystem condition, connectivity and function of the threatened community, including strategic works to address landscape scale threats such as salinity.

**Indicates landscape-scale actions that may deliver benefits to other threatened communities and multiple species.*

Past Actions

A representative sample of key conservation management actions delivered in the past 10 years are listed below.

Past actions	Description
Conservation management planning	• Planning for the protection, management and/or restoration of this and other threatened communities has occurred through regional, catchment and parks and forests management planning.

Deliver landscape-scale programs	• Programs have been implemented in regions and catchment areas to promote awareness of this and other threatened communities and provide information and incentives to improve its protection, management and restoration.
	• See Biodiversity On-Ground Action programs which includes:
	  • Biodiversity Response Planning projects (2017) such as 'Ribbons of Blue and Sashes of Green: linking Box Woodlands and Ironbark Forests', 'Protecting and enhancing the grasslands, woodlands and wetlands of the Patho Plains' and 'Remnant rescue: restoring woodland bird habitat in central Victoria'.
	  • Community and Volunteer Action Grant projects (2018) such as 'Protecting Buloke Woodlands in Berriwillock 2018-2021' and 'Protecting Buloke Woodlands in Nullawill 2018- 2021'.

Develop, update and apply forestry protections	• The threatened community has a current protection in the *Code of Practice for Timber Production 2014 (as amended in 2022)*: – In the Mid Murray Forest Management Area: exclude timber harvesting operations within any White Cypress Pine (*Callitris glaucophylla*), Buloke, Grey Box, Yellow Box (*Eucalyptus melliodora*) and Grey Box vegetation communities. • The risk of forestry operations was considered for this threatened community in 2020 under the Victorian Government Threatened Species and Communities Risk Assessment. Additional protections were not found to be required.
Permanent protection	• A number of sites have been permanently protected under a conservation covenant with Trust for Nature or land agreement through other mechanisms including through projects funded under Regional Landscapes and Targeted action projects: • In 2017-2018 areas of private land were prioritised for protection in North East Victoria to support this threatened community.
Survey and monitoring	• A map of the likely extent and distribution of the threatened community has been prepared.

Decision Support Tools

Decision making for conservation actions is supported through the following Victorian Government tools which may be of assistance in choosing the most appropriate or beneficial actions for biodiversity:

- Choosing actions for nature: NatureKit
- Biodiversity Knowledge Framework

Further Information

- FFG Act listing recommendation Grey Box - Buloke Grassy Woodland Community
- EPBC Act listing - Grey Box Grassy Woodland

- EPBC Act Conservation Advice - Grey Box Grassy Woodland
- Victoria's changing climate – understanding the impacts of climate change in Victoria
- Commonwealth Threat Abatement Plans
- Flora and Fauna Guarantee Regulations 2020
- FFG Act action statements

Get Involved and Take Action

If you are interested in supporting the recovery of this threatened community and associated threatened species, there are some important things you need to consider.

The Department of Energy, Environment and Climate Action (DEECA) is committed to engaging and partnering with Traditional Owners on how they wish to be involved in the planning and implementation of actions for this species. Steps must be taken to avoid harm and where appropriate ensure actions can deliver cultural benefits.

You can find advice about required approvals, land manager and/or owner permissions, options and incentives for private land conservation, and engagement with Traditional Owners and public land managers here: Action statements (environment.vic.gov.au)

To identify the relevant Traditional Owners, use the Aboriginal Cultural Heritage Register and Information System (ACHRIS) Welcome to Country and Acknowledgements Map.

You can also register your interest in taking action so we can connect you to other people or organisations working to help us secure the future for Victoria's threatened species and communities at threatened.species@deeca.vic.gov.au.

Reporting Actions

Activity data is critical to monitoring the implementation and progress of actions and evaluating action statements. These data are also used to:

- Determine progress towards achieving the contributing targets for Protecting Victoria's Environment – Biodiversity 2037.
- Inform the five-yearly State of the Environment Report.

For guidance on reporting actions refer to Activity Data.

Submitting Monitoring Data

For species that occur in this threatened community, the **Victorian Biodiversity Atlas** (VBA) provides a foundational dataset showing where biodiversity occurs across the Victorian landscape and how it may have changed over time. This is a core input for decision support tools that inform conservation action, public land management, research activities and reporting. We encourage all participants in the delivery of on-ground actions to submit species records and observations, including for introduced species, to the VBA as they carry out projects.

For further information see: Victorian Biodiversity Atlas (environment.vic.gov.au)

Sign up and begin submitting your data today at: https://vba.biodiversity.vic.gov.au/

Acknowledgment

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

ISSN 1448-9902 **(online)**

Accessibility

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