



OUR GRASSY COMMUNITIES

NATIVE GRASSLAND AND GRASSY WOODLANDS

1

SUMMARY

- Native grasslands are dominated by graminoids (grasses, sedges, rushes) and forbs (herbaceous wildflowers).
- Grassy woodlands have a similar ground cover to grasslands, but also include scattered trees and shrubs.
- Grasslands and grassy woodlands are found on the Victorian Volcanic Plain from west of Melbourne through to Portland.
- Only 1% of the original extent of these grassy vegetation communities remains in Victoria.
- These remnants are important habitat for many threatened plants and animals.

WHAT ARE NATIVE GRASSLANDS AND GRASSY WOODLANDS?

Our native grasslands and grassy woodlands provide habitat for a unique range of plants and animals. Grasslands are typically treeless and are dominated by a variety of herbs, sometimes with lightly scattered small shrubs. The herbs are a mixture of grasses, sedges and rushes, and herbaceous wildflowers.

On the volcanic plain, the dominant native grasses are mainly Kangaroo Grass and several tussock-grass, spear-grass, and wallaby-grass species. The clumping, tussocky nature of these grasses allows a variety of annual and perennial wildflowers to grow between them. These often form a colourful display and include forbs such as lilies, orchids and daisies, and occasionally small shrubs like rice-flowers and peas. At some sites and in some seasons, the wildflowers can be present in such large numbers that they actually dominate the community.

Grassy woodlands often have similar plants in the ground layer to grasslands, but typically include lightly scattered trees such as River Red-gum, Swamp Gum, Manna Gum, Yellow Box or Drooping Sheoak, or sometimes Grey Box or Buloke on heavier soils of drier areas. A few larger shrubs like Sweet Bursaria, Tree Violet, and some wattles may also be present, but are not usually a major feature.

The best time to identify these grassy communities is during spring and early summer when most of the plants are flowering. At this time you will be able to appreciate their quality and beauty as a spectacular display of colour and texture unfolds.

“

A spectacular display of grasses and wildflowers will appear in spring and summer

”

IN THIS SERIES

- | | | | |
|--------------------------|------------------------------|-------------------------------|--------------------------------|
| 1 Our Grassy Communities | 2 Site Assessment & Planning | 3 Weed Management | 4 A Burning Issue |
| 5 Grazing & Mowing | 6 Reducing Soil Disturbance | 7 Restoring the Missing Links | 8 Aboriginal Cultural Heritage |
| 9 Wetland Management | | | |

OUR GRASSY COMMUNITIES

NATIVE GRASSLAND AND GRASSY WOODLANDS

WHERE ARE NATIVE GRASSLANDS AND GRASSY WOODLANDS FOUND?

It is estimated that at the time of European settlement, grasslands and open grassy woodlands covered more than one-third of Victoria. They were widespread throughout the fertile soils of the Wimmera Plains, Northern Plains, Gippsland Plains and Western Plains.

As the vegetation structure and species composition of the grassy communities throughout Victoria varies slightly, different regions will have particular management requirements. The information provided in this brochure and the other guides in the series, refers mainly to the grasslands and grassy woodlands found on the Western Plains. This area, which stretches from Melbourne to Portland, is also known as the Victorian Volcanic Plains (VVP).

The Victorian Volcanic Plains have been formed by lava flowing from numerous volcanic eruptions dating back millions of years. The lava flows formed the basis of the fertile basalt soils found on the plains today.

WHY ARE NATIVE GRASSLANDS AND GRASSY WOODLANDS SIGNIFICANT?

Since European settlement, native grasslands and grassy woodlands have been reduced to less than 1% of their former distribution. The fertile soils of the volcanic plain and the lack of dense tree cover meant these areas were ideal for agriculture. Intense grazing, pasture improvement, urban development and cropping are the main reasons why so little of these original grassy communities remain.

Today, grassland and grassy woodland remnants are mainly confined to small, fragmented sites in paddock corners, rocky areas, escarpments, steep creek banks, cemeteries, and road and rail reserves. Very few of these remnants lie within formal conservation reserves. Therefore, protection and management of remaining patches is often difficult, as they typically face many competing land uses.

Native grasslands and grassy woodlands support not only the dominant grasses, wildflowers and trees, but also other, less obvious plants such as lichens, fungi and mosses.

These grassy communities also provide critical habitat for a variety of animals including birds, mammals, reptiles, insects, and frogs. As may be expected when so little of our grasslands and grassy woodlands remain, many of the plants and animals that live within them are considered threatened. For example, the Striped Legless Lizard, Plains Wanderer, Spiny Rice-flower and Button Wrinklewort are just some of the many species that are now listed as endangered or vulnerable in Victoria or throughout Australia.

Remnant native grasslands and grassy woodlands and their component plants and animals, still face degradation and loss of habitat. Threatening factors such as soil disturbance, rock removal, fertilizer use, weed invasion, inappropriate herbicide use or mowing, changed fire regimes, and other land use changes (e.g. grazing to cropping) all continue to impact on these highly valuable native communities.



ABOUT THE VVP NATIVE VEGETATION MANAGEMENT GUIDES

This brochure provides an introduction to our native grasslands and grassy woodlands. The other guides in this series provide further information about particular aspects of management and the legal obligations of land managers.

The information is of a general nature and land managers are encouraged to consult more detailed references or contact the Department of Environment, Land, Water and Planning or local Catchment Management Authority (CMA). Other organisations, Landcare facilitators, community groups or biodiversity consultants, may also be able to assist.

OUR GRASSY COMMUNITIES

NATIVE GRASSLAND AND GRASSY WOODLANDS

WHAT ARE THE BENEFITS OF NATIVE GRASSLANDS AND GRASSY WOODLANDS?

Apart from providing important habitat to the plants and animals that live in them, native grasslands and grassy woodlands provide other land use benefits. Some of these include:

- Mainly comprise drought resistant plants that provide a durable ground cover, which also helps prevent loss of topsoil.
- Tolerant of low nutrient, saline and acidic soils.
- As grazing pastures, native grasslands can provide long-term, low-input returns.
- Mainly summer-growing grasses, so pose less of a fire risk and provide feed for livestock when other pastures are sparse.
- Provide habitat for native birds, reptiles and beneficial insects that are predators of agricultural insect pests.

This list is by no means complete, and it is only recently that many benefits of native grassy communities are becoming more widely known. However, much more research needs to be undertaken to fully understand and appreciate all their values.

WHY IS MANAGEMENT OF OUR GRASSLANDS AND GRASSY WOODLANDS IMPORTANT?

Our native grassy communities are particularly prone to threatening processes that are likely to result in the extinction of species. When a plant or animal species disappears from its local habitat it is very hard to bring them back. Often, when one species disappears, more will shortly follow.

Rather than being left to look after themselves, native grassy communities, particularly the grasslands, require active management to maintain a variety of plant species and animal habitats. This is because grasslands have evolved under the influence of two major disturbance factors — fire, and grazing by native herbivores. Over time, fire and grazing periodically removed the build up of organic matter such as dense tussock-grass leaf growth, dry leaves and stalks, and other plant litter on the ground, keeping an open grassland structure. Regular removal of excess plant material stimulated fresh grass growth and provided germination sites for a range of wildflowers between the tussocks.

Since European settlement, previous fire and grazing patterns have been altered. Some grasslands have not been burnt or grazed for a very long time, while others have been grazed too heavily by livestock or rabbits. Because of these factors, the condition of many remnant grasslands has deteriorated, and several plant and animal species have been lost.

WHAT SORT OF MANAGEMENT IS NEEDED FOR OUR GRASSY COMMUNITIES?

Today, management techniques such as prescribed burning, controlled grazing, or targeted mowing can be reinstated to help maintain or improve the vegetation structure and species composition of native grasslands.

Other threats to the grassy communities, including soil disturbance, inappropriate herbicide use, and invasion by weeds and pest animals, must also be addressed. In some remnants, planting missing species or planting to extend the size of the patch, can help improve the condition of the communities.

In the first instance, it is important to assess your grassland or grassy woodland remnants to determine what management actions are needed. You should also monitor the remnants regularly to see whether your management aims are being achieved.

The other brochures in this series provide further information about these various aspects of managing grassy communities.

“
Our grassy communities are prone to many threats which could lead to extinction of some plants and animals
”

BELOW: Kangaroo grass



BELOW: Feather-heads



OUR GRASSY COMMUNITIES

NATIVE GRASSLAND AND GRASSY WOODLANDS

DEFINITIONS

Annual plant

A plant that completes its life cycle in only one year or season.

Community

Populations of different plants and/or animals living together in a particular environment.

Forb

A non-woody plant (i.e. herb) other than a grass, sedge or rush.

Graminoids

Grass-like plants, including grasses, sedges and rushes.

Habitat

The environment in which a plant or animal lives.

Herb

A seed-bearing plant that does not develop a woody stem.

Perennial

A plant whose life span extends over more than one growing season.

Remnant

Patch of native vegetation remaining after most has been cleared or severely altered.

Species composition

The combination of plant species that form a vegetation community.

Structure

The physical form and distribution of different types of plants in a vegetation community.

Tussock

A dense, erect clump, usually of a perennial grass.

Vegetation community

A fairly consistent collection of plant species, with a typical physical form, that tend to occur in particular parts of the landscape.



ABOVE: Kangaroo grass

FURTHER READING AND RESOURCES

Williams, N. Morgan, J. Marshall, A. (2015) *A Land of Sweeping Plains: Managing and Restoring the native Grasslands of south-eastern Australia*.

Department of Environment and Energy.

www.environment.gov.au/epbc

VVP Conservation Management Network (CMN).

<https://victorianvolcanicplainscmn.wordpress.com/>

Lunt, I. Barlow, T. Ross, J. (1998) *Plains Wandering: Exploring the Grassy Plains of South-Eastern Australia*.

McIntyre, S. Mclvor, J.G. Heard, K.M. (2002) *Managing and Conserving Grassy Woodlands*.

Grassy Gazette, Newsletter, Greening Australia: Grassland Restoration.

www.greeningaustralia.org.au/projects/grassy-groundcover-restoration/

Victorian Volcanic Plains Native Vegetation Management Guides are a joint initiative of:



The update and reprint of these fact sheets are supported by the Corangamite and Glenelg Hopkins CMA, the addition of the Wetland Management and Aboriginal Cultural Heritage fact sheets achieved with thanks to Michelle Casanova and Ada Nano through funding from the Australian Government's National Landcare Program.

Photography credit to Rob Addinsall, Dean Robertson, Elspeth Swan, Donna Smithyman and Ian McNiven.