Plains-wanderer Habitat Management Guide

A photographic guide for visually assessing the grassland structure of Plains-wanderer habitat
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Plains-wanderer habitat management guide objectives

1. The protection and management of habitat of the Plains-wanderer is vital for the conservation and recovery of the species. Adequately managing habitat to its optimal condition is the first step in the recovery of the species.

2. This guide provides landholders and land managers with a visual tool for managing Plains-wanderer habitat at optimal structure for the long term survival of the species. Landholders can use this guide as a means of assessing whether their grazing management practices are appropriate for maintaining Plains-wanderer habitat structure.

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About this guide

The protection and management of the habitat of the Plains-wanderer is vital for the conservation and recovery of this endangered species. Adequately managing habitat to its full potential is an important first step. This guide provides an easy-to-use tool for landholders who are interested in maintaining and managing Plains-wanderer habitat on their land. Photographs in this guide indicate the preferred habitat structure and the amount of herb and grass cover and bare ground that are ideal for Plains-wanderers. The guide is a practical tool which landholders can incorporate into their sustainable grazing practices to achieve a conservation outcome for the Plains-wanderer. Managing grasslands for Plains-wanderers will also benefit other grassland fauna and flora.

The ideal habitat structure for Plains-wanderers is based on detailed scientific investigation as well as advice from recognised Plains-wanderer experts and the NSW Plains-wanderer Recovery Team.

This guide can assist land managers in visually assessing the grassland structure of Plains-wanderer habitat on their properties. The entire spectrum of different Plains-wanderer habitats and their condition under a range of climatic and grazing conditions cannot be depicted in this guide. However, it is hoped that the use of a number of photos taken when grasslands are 'fresh' (green) and 'off' (brown) will allow landowners to assess the value of their grasslands to Plains-wanderers under a range of conditions.
How to use this guide

This guide relies on the goodwill and voluntary actions of landholders who are interested in maintaining and enhancing the conservation values of Plains-wanderer habitat on their property. It is suggested that landholders should monitor their Plains-wanderer habitat seasonally by using this guide to assess the structure of Plains-wanderer habitat.

The Plains-wanderer

Description

The Plains-wanderer is a small quail-like bird standing about 15 cm tall and weighing 40-95 g. Both sexes have straw-yellow legs and bills, and their plumage is mainly fawn with fine black rosettes. The larger female is easily distinguished by her prominent white-spotted black collar above a rich rufous breast patch.

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
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Habitat

In the western Riverina of NSW, Plains-wanderers live in low sparse native grasslands on hard, red-brown loams containing about 50% bare ground and 10% fallen litter, with the remaining 40% made up of herbs and grasses. Grass tussocks are spaced 10-20 cm apart. Most of the vegetation is below 5 cm high, but some vegetation up to a maximum of 30 cm is important for concealment. The species of plants occurring in the sparse grasslands occupied by Plains-wanderers are very similar to those in the much larger areas of dense native grass that Plains-wanderers avoid. This indicates that grassland structure is more important than species composition for Plains-wanderers.

Habitat mapping by Roberts & Roberts (2001) has revealed that there is a spectrum of Plains-wanderer habitat types ranging from ‘primary’ habitat with an ideal sparse, open structure, through to denser, taller ‘secondary’ habitat which is used by the species during drought conditions when primary habitat becomes unsuitable. This guide provides management guidelines for ‘primary’ habitat structure maintenance.
Primary habitat favoured by the Plains-wanderer typically occurs on hard, red-brown soils. The most frequently recorded of 75 species of plants from such areas include: ringed wallaby grass or white top (*Austrodanthonia caespitosa*), pale beauty heads (*Calocephalus sonderi*), windmill grass (*Chloris truncata*), slender bluebush (*Maireana pentagona*), speargrass (*Austrostipa ‘variabilis’ complex*), and barley grass (*Hordeum leporinum*).

Areas of highest quality Plains-wanderer habitat often have lichens on some areas of bare ground, and numerous perennial plants such as yellow buttons (*Chrysocephalum apiculatum*). Generally, Plains-wanderer habitat has a high plant diversity and often includes threatened plants such as the Slender Darling Pea (*Swainsona murrayana*).

Current Conservation Status

The Plains-wanderer has been listed as endangered within New South Wales and is vulnerable nationally.

Habitat mapping by Roberts & Roberts (2001) has indicated that the population is approximately 3,100 birds. This species displays large population fluctuations between droughts and good years, which makes the species susceptible to extinction given the small population size.

Plains-wanderers are currently threatened from loss of habitat, fox predation, overgrazing during droughts and long dry periods and widespread fire.
Too Sparse

*Fresh (Green)*

**Description**

This structure is characterised by having:

- 100 - 85% Bare ground.
- Little to no fallen litter.
- Lichens typically absent.
Plains-wanderers are typically absent from such areas due to a lack of cover and food sources, which are the result of prolonged drought and overgrazing.

What can you do? Reduce grazing pressure, or de-stock, until conditions improve.
Slightly Too Sparse

*Fresh (Green)*

**Description**
This structure is characterised by having:
- 85 - 70% Bare ground.
- Moderate levels of fallen litter.
- Lichens may be present or absent.
Plains wanderers are seen infrequently in habitat with this structure. This structure is due to over-grazing during short-term dry periods.

What can you do? Reduce grazing pressure for a short period until conditions improve.
Ideal (Primary)

Fresh (Green)

Description
This habitat structure is characterised by having:

- 50% Bare ground.
- 10% fallen litter.
- 40% herbs and grasses.
- Lichens typically present.
This grassland structure is favoured by Plains-wanderers.

What can you do? Maintain current management.
Slightly Too Dense

*Fresh (Green)*

**Description**

This structure is characterised by having:

- 40 - 25% Bare ground.
- High levels of fallen litter.
- More tussock grasses.
Plains-wanderers are less frequent in such areas as the structure is too dense and tall.

What can you do? Maintain grazing pressure.
Much Too Dense

*Fresh (Green)*

**Description**

This structure is characterised by having:

- 25 - 0% Bare ground.
- High levels of fallen litter.
- Lichens typically absent.
- Dense tussocks of grasses.
Plains-wanderers absent from such areas.

What can you do? Primary habitat can temporarily become very ‘grassy’ after good winter and spring rain. One option is to increase grazing pressure for a short period as primary habitat can rapidly change with grazing and dry conditions over summer. Stock should be removed once habitat is back to an ideal structure.
References and further reading:


Acknowledgments

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