

## Step 5

### Assess habitat diversity and condition

Vegetation and site features provide habitat for a range of species.

Identify potential fauna habitat by recording site conditions, habitat features and signs of native fauna for each management unit.

The overall conservation significance in an area is determined by the presence of native trees, by the variety and condition of the native understorey and the type of habitat available for native animals. Native grasslands contain fewer habitat features than woodland communities because they are less complex in structure. However, grasslands form highly significant habitat for many species. Habitats in grasslands include rocky areas, cracks in the soil, dense tussocks and even spider holes that are used by some reptiles and other invertebrates. Because grasslands have been highly modified and fragmented, many species that depend on them for habitat are threatened.

In addition to having all the habitat features possessed by grasslands, woodlands have a diverse structure and additional flora species. Standing dead trees or fallen timber and rocks are important habitat for wildlife including birds, small mammals, reptiles, amphibians and invertebrates. Hollows in dead and living trees are essential shelter or nesting sites for wildlife including possums, gliders, bats, parrots, kingfishers, owls, treecreepers, and many other birds. Very large trees growing in low parts of the landscape are very important as rich sources of nectar for honey eating birds, some of which are

very rare. Mature and young regrowth seedling and sapling trees are important habitat features partly because they are the hollow trees of the future. Clusters of saplings and wattles are important for another set of species, while trees with different bark types provide yet another feature that different fauna species exploit.

The types of features present in an area can be an indication of what habitat may be available to a range of species. This information can be used to:

- determine whether management should be altered to retain habitat and species diversity;
- compare habitats between the management units; and
- decide whether more detailed surveys should be undertaken.

#### Aims

- Find out what fauna habitat occurs in each of the management units.
- Record animals found in the management units.
- Understand the role that landscape and vegetation diversity has in creating habitat for fauna.

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### The importance of remnant native vegetation

Remnant patches of native vegetation may be either isolated from each other, or too small to support a great diversity of species. However, small remnants may form links in chains across the landscape. These provide valuable habitat corridors in the rural landscape. Larger areas of remnant woodland often support a species reliant on larger territories or reliant on a greater range of habitat features. River and creek margins are important wildlife corridors as well as providing unique habitat for some species. Wetlands or areas of water seepage also support a range of wildlife, especially amphibians and waterbirds.

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### Habitat score

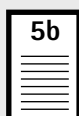
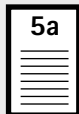
Assessing a habitat score gives an idea of the diversity of habitat available and identifies that there is potential for a diversity of species to inhabit the area. However, different species have preferences for different types of habitat. What may be suitable for one species is not suitable for another. A tree hollow might provide nesting for one species and another species may require fallen timber for foraging for insects. A site with higher diversity of habitat features, therefore, is not necessarily of greater value than one with fewer habitat features, which may be essential for a particular rare or specialised species.

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#### Materials

Sheet 5a

Sheet 5b



## Method

1. Record the habitat features of each management unit from Table G onto Sheet 5a.
2. Add up the habitat features for each management unit. The total is the habitat score.
3. Convert the habitat score to a ranking by using Table H. Record the habitat ranking for each management unit on Sheet 5a.
4. Record animal species seen in each management unit on Sheet 5b. Refer to relevant field guides as necessary.
  - Record the date of each sighting.
  - Add species to the fauna list over time.

5a


5b


**Table G: Habitat condition assessment**

Signs or sightings of native fauna
1. Have you heard or seen small native birds?
2. Have you seen or heard birds of prey, including kestrels, falcons, kites, goshawks or eagles?
3. Are there nests and burrows, including spider holes, but excluding rabbit burrows?
4. Are there ant or termite mounds?
5. Have you seen different reptiles such as snakes goannas, dragons, skinks or turtles?
6. Have you seen other native animals, their droppings (scats) or animal tracks, trails and markings, including wallabies, wombats and echidnas, but excluding kangaroos?
7. Is there a very low incidence of feral animals?
Groundlayer and grassland habitat features
8. Are there dense patches of tall tussocks?
9. Are there more than 10 native species in the groundlayer?
10. Are mosses or lichens present?
11. Are there loose surface rocks or rocky outcrops present?
12. Are there leaves, bark and twigs, or grass litter on the ground?
Native woodland habitat features
13. Is there a mix of tree ages present, i.e. seedlings, saplings, young trees, mature trees and very old trees?
14. Are there particularly large trees growing in low parts of the landscape?
15. Are there a variety of types of eucalypts present (i.e. Two or more of: smooth barked gums, rough barked boxes or peppermints, fibrous barked stringybarks, or deeply fissured ironbarks)?
16. Are the trees mainly healthy, with little or no dieback?
17. Are there less than 20% of trees affected by mistletoe?
18. If trees are present, are there also native grasses and forbs present?
19. If the area is woodland, are there native shrubs or large patches of regrowth eucalypts present?
20. Are there locally indigenous wattle trees present?
21. Are there hollows in the older trees present?
22. Are there logs and/or fallen timber on the ground?
Other habitat features
23. Are there wetlands or springs in the land unit (include dams fringed with vegetation and drainage lines)?
24. Is there a permanent creek or river lined with in native trees or shrubs present?
Site condition
25. Is evidence of ringbarking or rubbing of trees by stock absent?
26. Is the area free from salinity and/or high water tables or the threat of these?
27. Are stock camps absent?



Table H: Converting habitat scores to rankings

Habitat score: woodland or isolated trees	Habitat score: grassland	Habitat ranking
23–27	15–17	Very high (VH)
17–22	11–14	High (H)
11–16	8–10	Moderate (M)
5–10	4–7	Low (L)
0–4	0–3	Very low (VL)

### Example

#### Step 5a: Habitat condition assessment

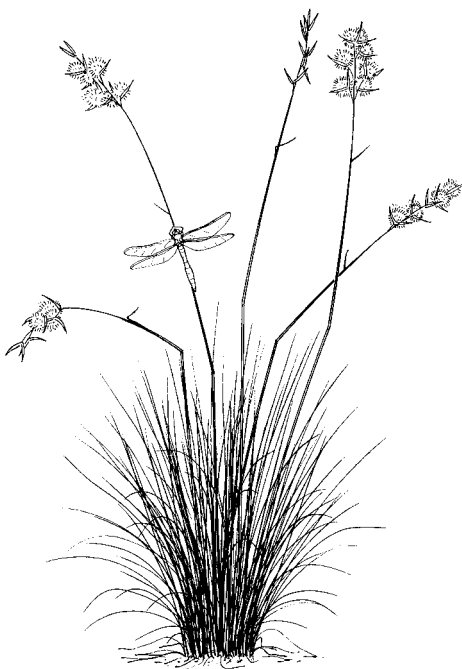
Assessment questions	Management units			
	A	B	C	D
<b>Signs or sightings of native fauna</b>				
1. Have you heard or seen small native birds?		y	y	
2. Have you seen or heard birds of prey, including kestrels, falcons Kites, goshawks or eagles?		y	y	
7. Is there a very low incidence of feral animals?	y	y	y	y
<b>Groundlayer and grassland habitat features</b>				
10. Are mosses or lichens present?		y		
12. Are there leaves, bark and twigs, or grass litter on the ground?	y	y	y	y
<b>Native woodland habitat features</b>				
13. Is there a mix of tree ages present, i.e. seedlings, saplings, young trees, mature trees, and very old trees?				
17. Are there less than 20% of trees affected by mistletoe?				
18. If trees are present, are there also native grasses and wildflowers present?				
19. If the area is woodland, are there native shrubs or large patches of regrowth eucalypts present?				
22. Are there logs and/or fallen timber on the ground?				
<b>Site condition</b>				
25. Is evidence of ringbarking or rubbing of trees by stock absent?				
26. Is the area free from salinity and/or high water tables or the threat of these?		y	y	
27. Are stock camps absent?		y	y	
<b>Grassland or woodland?</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>
<b>Total number of 'yes' answers</b>	<b>5</b>	<b>11</b>	<b>9</b>	<b>6</b>
<b>Habitat condition rating</b>	<b>L</b>	<b>H</b>	<b>M</b>	<b>L</b>

Example

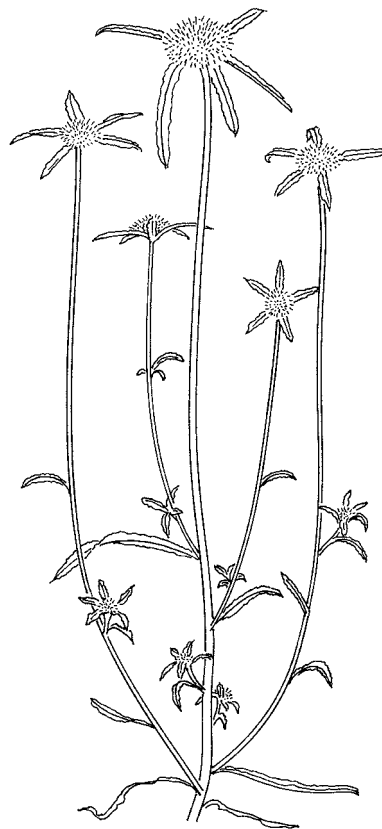
Step 5b: Animal sightings

Management units	Species	Date	Comments
A, D, E, F	Striped Legless Lizard <sup>1</sup>	1994	Surveyed by Environment ACT
F	Golden Sun Moth <sup>2</sup>	1997	Surveyed by Environment ACT
F	Perunga Grasshopper <sup>3</sup>	1997	Surveyed by Environment ACT
C	Speckled Warbler	2/3/01	Sighted
I	Echidna	9/11/00	Sighted
H	Wombat	12/3/99	Fresh scats (droppings)
All	Eastern Grey Kangaroo		Frequently present

- 1 Species declared threatened in ACT, NSW, Victoria and nationally
- 2 Species declared threatened in ACT and nationally
- 3 Species declared threatened in ACT



*Austrodanthonia laevis*



*Euchiton sphaericus*