

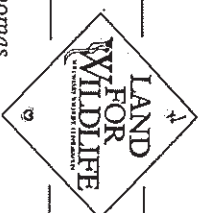
How healthy is your bushland?

Land for Wildlife Note No. 40

November 1996

Key words: Bushland restoration, bushland health, revegetation vegetation assessment.

Area: Statewide
Author: Stephen Platt, Ray Thomas



A self-guided assessment to recognising high quality wildlife habitat

Providing the best possible habitat for native wildlife on your property requires a good understanding of its living requirements. This understanding makes it possible to make informed judgements about what changes will improve the habitat areas you are managing.

Habitat condition is vital if the full natural range of species are to inhabit the area, to maintain its long-term health and for it to fully contribute to the value you get from your property.

So, how healthy is the habitat at present on your property? This information sheet provides an introduction to some important habitat components and is intended to prompt questions which are answered in more detail in other *Land for Wildlife* Notes.

1. WHAT SURROUNDING LANDSCAPE ?

The management activities carried out in surrounding areas will affect the quality of your habitat. For example, if the adjoining land is cleared and sown to pasture it is more likely that the habitat will be affected by edge effects, such as windthrow and weed invasion (an aerial photograph will help identify the surrounding features). Adjoining bush may act as a buffer or offer potential for vegetation corridors.

Remnant 1
Remnant 2
Remnant 3
Remnant 4

DATE OF ASSESSMENT: _____

Is your bush surrounded by:

cleared land/pasture or crop?

weed sources?

remnants of native vegetation?

bush on most or all sides?

a buffer against weed invasion, wind, etc?

low in the catchment? (if low, may suffer from salinity, etc.)

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2. HOW LARGER?/HOW WELL CONNECTED?

Larger blocks of vegetation can harbour a wider range of species and are more resilient to external factors. Wildlife corridors can assist movement and act as habitat in themselves. Rehabilitating the surrounding area, creating buffer zones and corridors are potential corrective actions.

Is your bushland:

0-1 hectares?

1-5 hectares?

Greater than 5 hectares?

Connected to habitat >30ha by corridors wide enough to provide habitat in themselves?

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3. WHAT SHAPE ?/HOW MUCH EDGE?/HOW MUCH CORE HABITAT ?

Remnant blocks of vegetation with a circular shape are less likely to suffer disturbance from the surrounding landscape such as weed invasion, the effects of predators, and climatic extremes than narrow linear or irregular bush blocks. Circular shapes have less edge (see LFW Note 23). Also, shyer species require the safer, more stable conditions deep inside the bush.

Is your bushland:

Circular in shape?

Rectangular in shape?

Irregular in shape with many indents?

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es 32 & 13).

e) vegetation layers present include:

	Remnant	Remnant	Remnant	Remnant
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
twigs and branches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
er present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



ng itself?

ay appear healthy but can in fact be living on borrowed time if seedlings are not surviv-
 nts. On the other hand, if flowers are setting seed and seedlings appearing, it is a good
 stem processes still operating (e.g. pollinators must be present). Look for seedlings in
 FW Note 22 for monitoring suggestions.

ccurring in:

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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nction

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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brates present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



/species diversity

features or different types of vegetation will provide for a greater range of species.
 ree hollows are present, hollow-nesting species may remain to roost or breed rather
 Of course, one bit of bush may not have all the features listed here. A variety of vegeta-
 a greater range of species to find food and nesting sites. Naturally fertile areas may
 ompare your bush with similar types in your district.

ude:

g	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dwelling animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Note 18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
cing nectar throughout year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s (e.g. woodland/heathland, creekline/slope)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
densities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
y high fertility (e.g. deep, rich soils)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5b evidence of competitors (see Land for Wildlife Notes 24, 25, 31).

- many weed species present
- rabbits
- livestock grazing
- introduced honey bees (occupying tree hollows/taking nectar)
- other introduced grazing animals (e.g. goats, pigs, etc.)

5c evidence of unbalanced ecosystems

- tree dieback occurring (see LFW Note 34)
- excessive mistletoe infestation (see LFW Note 26)
- repeated excessive defoliation by insects
- loss of nitrogen fixing wattles and peas
- evidence of excessive disease (e.g. such as wombat mange)
- wildlife populations declining

5d other threats

- fertilizer drift from adjacent paddocks
- soil disturbance/compaction
- disturbance by passers-by/machinery
- nutrient input from animal faeces, sewage, runoff from adjacent land
- garden waste dumping
- earthworks, stock camps

6. MANAGEMENT HISTORY ?

Previous management sets today's scene and can limit your options. For example, a pr
 mean that few very large trees with hollows remain. Coppiced, thin trees lacking holl
 collection. Single aged plants indicate a prior disturbance at one point in time.

- evidence of unsustainable livestock grazing
- or livestock excluded by fencing for many years
- abnormal fire regime
- or natural fire regime maintained
- evidence of soil disturbance (e.g. very weedy patches present)
- or soil profiles intact
- evidence of extensive firewood collection
- drainage alterations to wetlands/streamflows

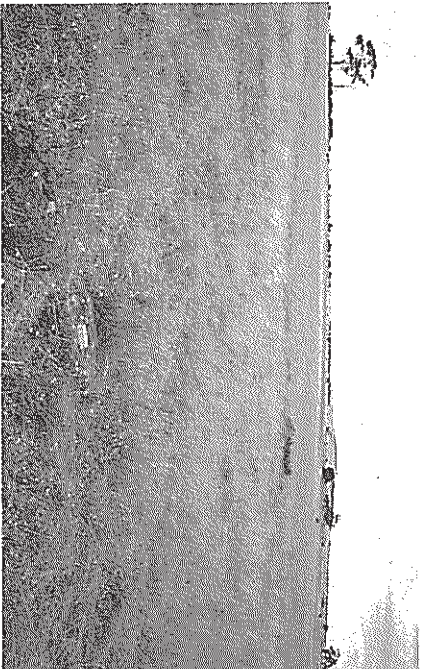
Record what you know of the management history (attach additional information):

7. FUTURE PLANS

Having completed this general assessment, consider what improvements to the habitat y
 They might include putting up a fence, planning to put in a vegetation corridor or start
 local Land for Wildlife extension officer is available to help you. Revise your actions a
 calendar/diary.

EXAMPLES OF HABITAT HEALTH

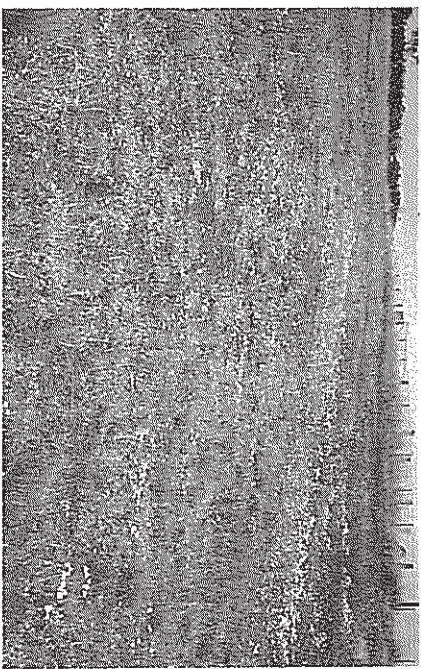
PHOTO: J. ROSS, TRUGANINA



Unhealthy grassland remnant

Note how many of the intertussock wildflowers are missing. Weeds are often very common, making up 30% or more of the species. N.B. Rare plant present.

PHOTO: V. CRAIGIE, GLENTHOMPSON



Healthy grassland remnant

Generally tussocky with plenty of spaces occupied by wildflowers and rarely some small shrubs.

PHOTO: S. MANN, NORTH CENTRAL VIC.



Healthy woodland remnant

Open branched trees with numerous scattered shrubs and forbs. Leaf and bark layer present. Old trees with hollows retained.

PHOTO: F. MACLENNAN, GIFFORD



Unhealthy forest and woodland remnants

Leaf and twig layer is missing. Understorey shrubs and grasses have been removed by grazing. Damage to tree bark by livestock is evident. Little or no regeneration. Surrounding by open paddocks. Dieback is usually evident. No vegetation corridors to nearby remnants.

PHOTO: L. AHERN, STEELS CREEK



Healthy forest remnant

Trees with interlocking branches. A lack of coppiced trees indicates that the area is unlikely to have been harvested for firewood. Trees with hollows. Scattered shrubs and forbs. Evidence of ground-dwelling species.

PHOTO: K. BLOOD, PT. NEPEAN N.P.



Unhealthy coastal vegetation

A weed, Bridal Creeper, has invaded this stand of paperbarks. Death of the canopy allows light to enter. Isolated stands can be attacked by salt-laden winds.

PHOTO: K. BLOOD, MILLER'S LANDING, WILSON'S PROMONTORY



High quality coastal vegetation

Ground layer of bracken fern and sedges intact. No evidence of deaths due to the fungus *Phytophthora*. Part of an extensive tract of connected vegetation.