

Creating habitat corridors for wildlife

Land for Wildlife Note No. 3

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Author: WMB

Why create habitat corridors?

Clearing of land for agriculture, urban development and many other changes to the natural environment have greatly reduced the amount of habitat available to wildlife in Victoria. The fragments of natural vegetation that remain are often small and isolated from one another by man-made environments, such as open pasture and housing, which can act as barriers to wildlife movement.

Wildlife is constantly on the move. The search for food, dispersal of young to new home ranges and annual and seasonal migrations are essential wildlife movements. But wildlife in a habitat 'island' may have no adjacent habitat to forage in, or disperse along.

Animals in an 'island' situation are vulnerable to catastrophes such as disease and bushfire, and to gradual changes like inbreeding and variations in climate.

Single 'islands' may not provide all the resources one species requires for food, shelter and breeding. Each habitat 'island' is thus not reaching the potential it could have if connected to other natural areas which may contain these resources.

Links between isolated stands of vegetation can allow migration to replenish a declining wildlife population or recolonise an area where a wildlife species has become locally extinct.

Habitat corridors, or strips of natural vegetation connecting 'island' habitats, have been proposed as a means of re-connecting isolated populations of wildlife. A system of corridor links is more likely to sustain wildlife populations throughout the fluctuations and catastrophes that they inevitably undergo. Thus, habitat corridors can increase the value of existing isolated habitats.

Where?

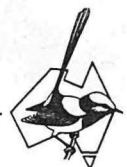
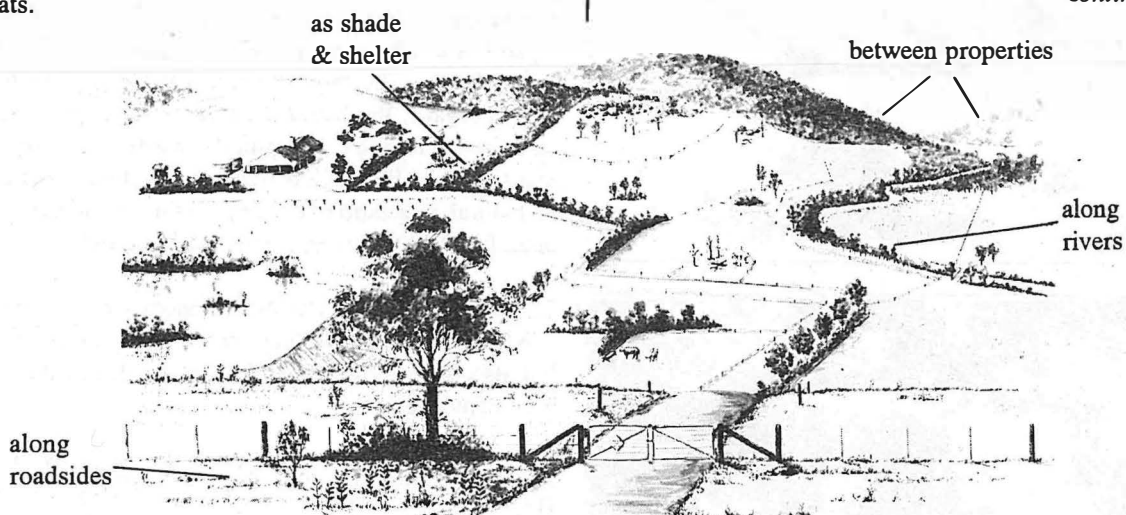
A habitat corridor may exist across any landscape and between habitat 'islands' of any size but they are best designed to follow natural environmental contours. The Murray river forms a *natural corridor* of forest vegetation where it passes through the mallee region of north-western Victoria. *Remnant corridors* of native vegetation exist along many of our country roads, disused stock routes and railway reserves; and *planted corridors*, like farm shelterbelts and windbreaks, have been created by humans.

What a corridor should include:

Important components of a wildlife corridor are:

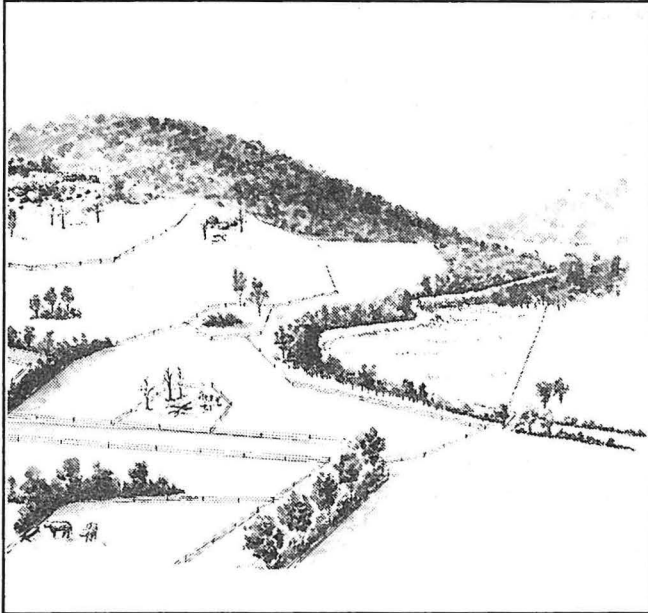
- (i) that the corridor be continuous and link areas of wildlife habitat;
- (ii) that the corridor provide a diverse natural vegetation. All forms of vegetation (trees, shrubs and ground cover, including fallen logs and leaf litter) should be represented where these are natural to the area;
- (iii) that the corridor be wide enough, and have suitable habitat, for the animals to **live in** as well as to move through; and
- (iv) that the corridor is managed in a way that maintains the habitat requirements and other resources required by wildlife (see LFW Note No.4).

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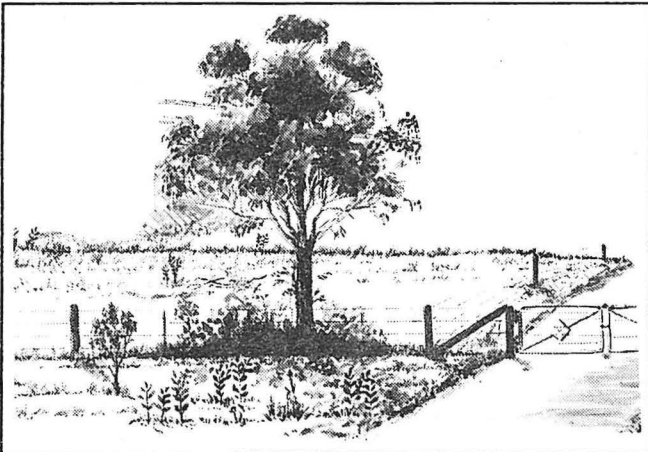


Some steps you can take:

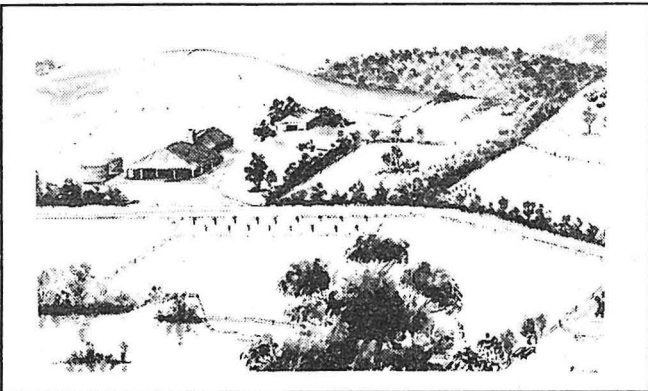
Streamsides, disused stock routes and areas adjacent to roads, rocky hilltops, along fencelines and disused railways are all places where habitat corridors might be created in cleared land. Co-operative action between several landowners may be necessary to link habitat areas. The exact location of corridors on a property should fit in with the overall plan for the property having taken into account the various management options for each area. See *Whole Farm Planning*².



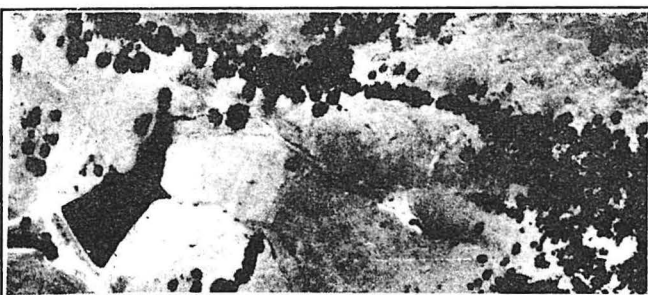
◀ Streamsides and their associated vegetation are high value areas for protection or restoration as habitat corridors for wildlife. Limiting stock access with a fence along most of the streamside will protect the bank from erosion and enable any remaining native vegetation to regenerate. Improved water quality, flood mitigation, erosion protection, land conservation and recreational fishing are additional benefits. Replanting or seeding the bank with local riverside native plants may be necessary if very little is left of the original vegetation. Check the General Reference List for help in identifying which plant species are appropriate or contact the Department of Conservation and Environment. Local native vegetation can prevent erosion - it has been doing so for hundreds of years. Willows and other introduced species have little value for Australian wildlife, however, you may find that leaving such trees in place, whilst you establish natives, then removing them as the natives develop, will maintain control of the river bank.



◀ Improve the value of roadside reserves to wildlife by not grazing these areas except in extreme circumstances and by placing firebreaks inside the fenceline. Avoid disturbing native grasses along the roadside by cultivation or more fire-prone introduced species such as *Phalaris* are very likely to take over. Consider the value of replacing an old fence with a new fence inside the existing one to allow for natural regeneration from seeds thrown by natural roadside vegetation. This technique can double the width of the vegetated corridor with minimum effort. It also provides a potential wood supply and shelter for stock in extreme weather. It may be necessary to lightly scarify compact paddock soil. Do so when seeds in adjacent natural vegetation are ripe (month depends on the species)¹.



◀ Shelterbelts and windbreaks can also act as habitat corridors for wildlife. Try using local native species and planting a wide range of plants including trees, shrubs, and ground covers. Remember that tree and leaf litter, and topsoil are all elements which enhance suitability for native fauna. The more diverse your shelter belts can be in this regard, the better the chance of them withstanding extreme conditions or natural disasters without special management. Planted corridors can extend existing strips of natural vegetation, or they could provide links across open farmland between patches of bushland.



◀ There are many opportunities to incorporate corridors into a *Whole Farm Plan*². They may benefit not only wildlife, but also the ecological balance and health of the rural and urban environment.

References: 1. *How to Collect Native Tree Seed Easily*, Greening Australia 2. Garrett, B.K. (ed)(1988) *Whole Farm Planning, Principles and Options*, Dep't of Conservation and Environment.

Further Reading: Breckwoldt, R. (1986) *The Last Stand*, pp 11-18, AGPS, Canberra; Breckwoldt, R. (1983) *Wildlife in the Home Paddock*, Ch 3, Angus & Robertson, Aust.