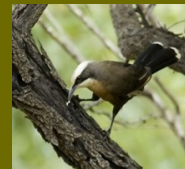




THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA



Managing Brigalow for wildlife

The Brigalow Belt is a national biodiversity hotspot supporting a rich diversity of fauna, many of which are endangered and vulnerable to clearing, climate change and predation by cats and foxes.

This fact sheet presents preliminary findings from an ongoing research project in the Brigalow Belt bioregion -

'The restoration of fragmented Brigalow landscapes for conservation: evaluating alternative futures in a changing climate'.

This project is developing model-based planning tools and supporting guidelines for the management and restoration of fragmented Brigalow ecosystems of southern Queensland and northern New South Wales.



Habitat structure

For most fauna, a tree canopy is not enough. In a patch of brigalow woodland, more complex habitat structure means more species will find a home. For example, small birds such as finches and fairy-wrens need dense vegetation, preferably spiny shrubs, for protection from predators.

Reducing grazing pressure within areas of brigalow woodland can preserve the important shrub layer and allow it to regenerate. Even areas of young regrowth brigalow can act as shrubby habitat for small birds.

The ground layer

A messy ground layer is a good ground layer. Terrestrial reptiles and small mammals need fallen timber and leaf litter for shelter, and this environment also favours the invertebrates on which they feed. Crabholes hold water and create important microhabitats for frogs and reptiles which prefer damp areas.



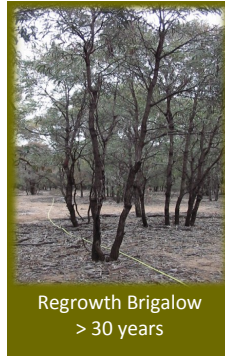
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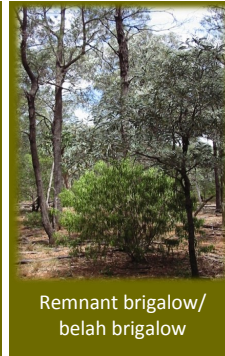
Regrowth brigalow
< 15 years



Regrowth Brigalow
16–30 years



Regrowth Brigalow
> 30 years



Remnant brigalow/
belah brigalow

Both regrowth and remnant brigalow are important and valuable for birds, but the older the regrowth, the better. Regrowth older than 30 years has a very similar species richness to remnant brigalow. Even very young brigalow provides habitat for species which like its shrubby structure, such as fairy-wrens. Allowing regrowth to persist in some areas is a cheap form of revegetation, and much less time-consuming than planting trees for habitat.

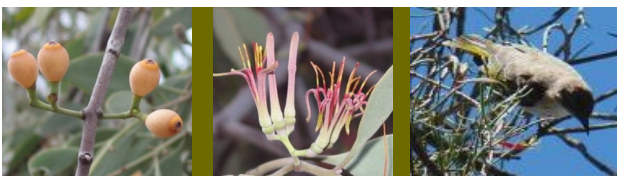
Regrowth management

Passive restoration of re-growth represents a potential conservation bargain because regrowth can grow into mature forests without the large investment of time and resources associated with tree planting schemes.

Mistletoes

Mistletoes are an often misunderstood component of Australian woodlands. There are many native species of these semi-parasitic plants in Australia and they provide important food (fruit and nectar), shelter and nesting habitat for many types of animals. Their leaf litter also benefits ecosystems by adding nutrients to the soil and enriching the ground layer.

Grey mistletoes are particularly abundant in narrow linear strips of remnant brigalow. While it is unclear whether they affect brigalow host tree health, grey mistletoes are very important for maintaining the abundance and diversity of woodland birds that live in, or travel along these remnant strips.



Grey mistletoe fruit

Grey mistletoe flowering

Honeyeater and mistletoe

If you would like more information about this project, please contact Martine Maron or Clive McAlpine

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Photographs: Michiala Bowen, Martine Maron, Deryk Engyl



The landscape

It is not just what happens in the patch of brigalow that is important to the fauna that live there. Many species range widely and need to cross open areas between brigalow patches. If there are trees or regrowth brigalow in the paddock, then many species will find it easier to move about the landscape. And the more vegetation in the landscape, the more species can survive there.



Activities in the landscape surrounding native vegetation also affect the patches themselves. Careful management of herbicide spray is important to avoid stress on trees bordering paddocks, which can lead to their death and shrinkage of remnant habitats.

The Brigalow fauna

Brigalow woodland is especially important for terrestrial reptiles, with species such as the brigalow scaly-foot and collared delma all potentially occurring in good quality habitat. Threatened birds such as the painted honeyeater enjoy the berries of the grey mistletoe which is common in brigalow, and the woodlands still support many bird species which are declining in more southern woodlands, such as grey-crowned babbler and varied sittellas.