

Nature's workforce



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“Get Connected!”

Networking the natural workforce

Productive cotton farms need to be connected with roads and rail to gins and ports. Similarly, a productive natural workforce needs to be connected to the native vegetation to access all the resources it requires. Consider talking to your neighbours about linking native vegetation between properties.



Vegetation along the Gwydir River provides a wildlife corridor through the Gwydir Valley Photo: Guy Roth

In Summary

The science

Pockets of native vegetation in woodlands, grasslands, wetlands and along rivers occur in and around cultivated land on cotton farms. To keep and encourage biodiversity into these landscapes we need to connect these pockets of native vegetation with corridors of native vegetation.

Helpful hints

- Identify native vegetation on your property plan.
- Leave strips or clumps of regeneration between larger patches of native vegetation.

- Collaborate with your neighbours and catchment body to re-establish corridors between patches of native vegetation.

Benefits to the farmer

Corridors act as spray drift barriers and natural filtration buffers when planted near water ways.

Are you making a difference?

- Have you seen any of the indicator species in the Birds on Cotton Farms book in your native vegetation patches?

What does the science say?

It is not surprising to learn that the size of the native vegetation patch, the distance



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between native vegetation patches and their connectivity are the three most important landscape features for biodiversity.

A well connected landscape, allows the movement of animals, provides additional habitats and makes the colonisation of native vegetation easier after catastrophic events like floods, fire and / or drought. (It means your work force can talk to other “branches” for advice and resources). Corridors of native vegetation can also support birds, reptiles and arboreal mammals to varying degrees depending on the complexity and age of the corridor.

Most medium to larger bird species tend to go on exploratory ‘forays’, or searches, and then return to their native vegetation patch. These forays are rarely further than 1 km and so an effort should be made to connect native vegetation patches that are between 1 km and 1.5 km apart. Where possible, include old dead trees, fallen logs and rocks as this all contributes towards greater

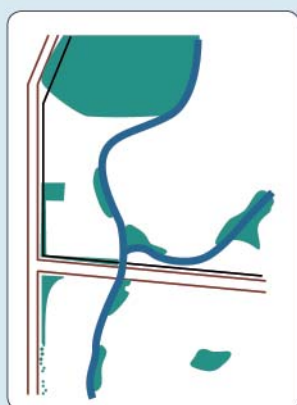
habitat complexity within the corridors. Even small patches of native vegetation can have significant conservation value and act as stepping stones between larger patches. For example scattered paddock trees of between 80 m to 100 m apart can act as corridors for bird species like the Brown Treecreeper. These paddock trees also support populations of insects and spiders.

For some smaller bird species like Golden Whistlers, Fairywrens, and Hooded Robins it is difficult to cross wide open spaces and move between patches of vegetation and corridors are important for these species. Corridors also play a role in enhancing the pollination success of plants. It has been shown that for plants pollinated by butterflies and bees, those located in patches connected by vegetation have significantly higher rates of pollination than those in isolated patches.

What can you do?

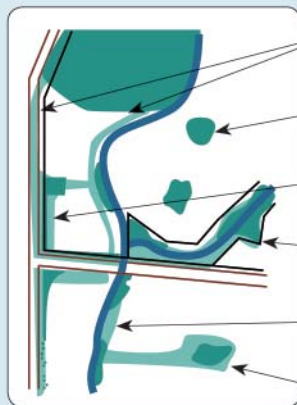
- Obtain an aerial photo or satellite image of your property to help you to identify how to link native vegetation patches on and surrounding your property with corridors. In some cases it may be necessary to plant corridors to link habitats, but it may also be possible to use existing corridors like the riparian zones, road side strips or travelling stock routes.
- Consider widening existing corridors, they need to be as wide as possible (between 30 m – 400 m) and generally not longer than 1.5 km to gain the maximum benefits from corridors.
- Where it is not possible to have continuously wide corridors, the habitat value of narrow corridors can be improved by having larger vegetation patches dispersed along the corridor.
- Contact the local catchment body, council or landcare group to see how to link your farm with existing corridors such as travelling stock routes, road reserves, and other existing native vegetation on private and public land.

KEY CONCEPT - CREATE CONNECTIVITY IN THE LANDSCAPE



The diagram on the left represents a relatively poorly connected landscape, with substantial gaps between vegetation remnants (green).

On the diagram below, the remnants are better connected, with new and enhanced corridors plus stepping stones between the large remnant and smaller ones.



- Create corridor linkages between remnants
- Create “stepping stone” clumps of vegetation
- Widen roadside corridors inside your boundary
- Fence to help manage corridors and remnants
- Fill in gaps in existing corridors
- Enlarge small remnants

- Scattered trees (< 80 m apart), farm forestry plots, wind breaks, fodder plantings, deep-rooted perennial pastures and even gardens can add to the connectivity of a landscape.

Are you making a difference?

Have you seen any of the indicator species in the Birds on Cotton Farms book in your large vegetation patches?

Compare historical aerial photos/vegetation maps of your property to measure the changes to the native vegetation patches and corridors over time.

Benefits to the cotton grower

- Corridors provide shade, shelter and act as windbreaks.
- Improves the aesthetics of farms by maintaining the Australian bush landscape.
- Corridors act as spray drift barriers and natural filtration buffers when planted near water ways.



Golden Whistler, often heard rather than seen can be encouraged by connecting woodland areas *Photo: Ian Montgomery*

Benefits for biodiversity

- Connecting your native vegetation patches can help biodiversity adapt to climate change.
- Facilitates the movement of fauna, like small birds, reptiles and insects.
- Supports pollinators which helps maintain the genetic diversity of the flora.

A cautionary note, corridors may assist introduced pests like rats, and wildlife could be at risk along corridors adjacent to roads.

For more Information:

Web pages

<http://www.cottoncrc.org.au>

<http://live.greeningaustralia.org.au/GA/NAT/TipsAndTools/exchange/>

<http://www.carbonsmart.com.au/> Landcare Carbonsmart

<http://www.qmdc.org.au/publications/newsletters/land-for-wildlife/summer-edition-2006--2007.pdf>

Scientific Publications

Bradshaw W (2001) Critters & Crops: The critical connection. Greening Western Australia, Fremantle, WA.

Lindenmayer, D.B. and Hobbs, R.J. (eds.) (2007) Managing and Designing Landscapes for Conservation: Moving from Perspectives to Principles. Blackwell, Oxford.

Platt SJ (2002) How to Plan Wildlife Landscapes: A guide for community organisations. Department of Natural Resources and Environment, Melbourne, VIC.

Guides

Ford, G. & Thompson, N. (2006) Birds on Cotton Farms. Cotton Catchment Communities CRC.

