

Fact Sheet

Revegetation for Ecosystem Services



Getting started

They bite, they sting, they itch and they attack.... So what makes fauna on farms so special?

- Pollinators
- Predators
- Parasitic
- Mulchers
- Buriers
- Border security

Multiple benefits from revegetation

- Habitat
- Shelterbelts/Windbreaks
- Perennial groundcovers
- Biodiversity certificates
- Environmental credentials

Regional context

The region supports over 900 wetlands, (4 of international significance), home to 2 of the state's faunal emblems – Helmeted honeyeater and Leadbeaters possum and the marine emblem –Weedy Seadragon. Around 340 of the region's flora species and around 200 mammal, amphibian, bird, fish and reptile species are considered under threat of local or total extinction.

Image: Alison Hoelzer Photography

Past problems

It is important to design revegetation that is appropriate to the benefits you are wanting to achieve.

Historically, revegetation has been single linear shelterbelt design and simple garden design. With limited complexity to design, we have created more problems that we solved. Noisy miners are an example of this revegetation design flaw. Another example is that, with limited structural complexity to revegetation, we reduce insect populations as these predominantly live in the lower to middle storey (CityofMelbourne, 2018).



Provide Habitat



PROVIDING HABITAT

Revegetation needs to be fit for purpose (ie providing shade and shelter for livestock) but also support functional biodiversity- the ecosystem services that can be achieved from good design.

Planting trees alone will not support the 'diversity' in biodiversity.

Wide plantings with dense understorey will support the diversity of woodland birds, mammals, reptiles and invertebrates that, in return, provide excellent ecosystem services through pest control, soil turning, pollination and mulching.

A complex revegetation planting also provides carbon sequestration and with good monitoring, opportunities for biodiversity credentials.

Consider plantings that are floristically diverse that can provide

year' round flowering as well as structural diversity with all vegetation strata incorporated- tree canopy, understorey of both midstorey and lowerstorey, groundcovers of grasses and forbs.

Indigenous local species, species from suitable climate change provenance and low fire risk are also important design factors.

Incorporate logs and rocks to support ground dwelling fauna and invertebrates. (SustainableFarms, 2023).

Images:

1. *Busaria spinosa*
2. *Leptospermum continentale*
3. *Goodenia ovata*
4. *Rytidosperma sp.*
5. *Wahlenbergia stricta*
6. *Brachyscome basaltica*

Image credit: 1,3,4,5,6 Melbourne Water

Image 2: Joel Geoghegan (Bass Coast Landcare Network)

Beneficial Fauna



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INVERTEBRATES

From a revegetation perspective it is important to incorporate nectar plants as these provide the resources for beneficial insects such as ladybirds, hoverflies, parasitic wasps and lacewings. Research conducted in South Australian Vineyards has shown that planting *Busaria spinosa* (Sweet Busaria), *Leptospermum continentale* (Prickly tea-tree) and *Rytidosperma* sp. (Wallaby grass) provides the best nectar resource for beneficial insects. Research in the vegetable industry has shown that *Myoporum* sp. (Boobialla) and other natives can extend the longevity of parasitoid wasps (S. Pandey, 2017).

INSECTIVOROUS BIRDS

Woodland birds enjoy a diet of insects but need a dense understorey to retreat when predators or bird bullies are close by. Farms with well-structured diverse revegetation can benefit

from these species living within the farm ecosystem and foraging in pastures for insects. Vegetation connectivity is also important to allow small birds to use plantings as corridors to move around the landscape.

MICRO-BATS

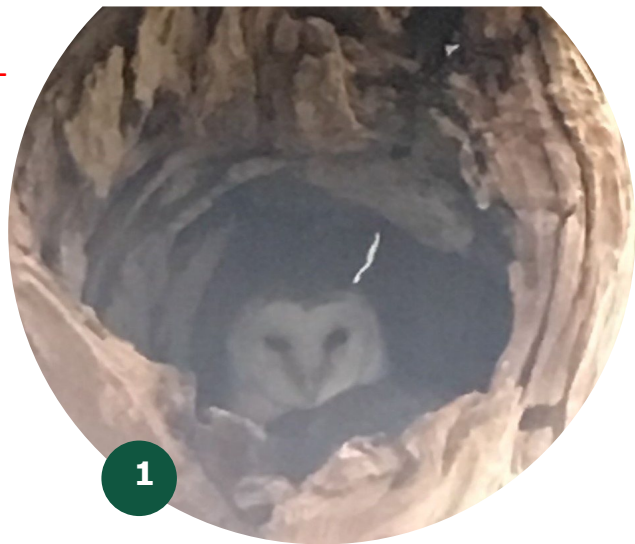
Micro-bats can eat half their body weight in insects each night! They roost in tree hollows, caves, tree canopy and buildings. It is important to protect old paddock trees and install micro-bat boxes around the farm to encourage visitation by micro-bats.

RAPTORS

Raptors are territorial which makes them excellent as a farm's border control. They enjoy eating rodents, birds and rabbits. Protecting tree hollows, installing nest boxes and a predator perch can help keep these important birds on your farm.

Image credit: Melbourne Water (1,2,3,4,6) Susan Davies iNaturalist (5).

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RESOURCES

EcoVineyards- Look up the knowledge hub for resources on planting for beneficial insects.

<https://ecovineyards.com.au/>

Sustainable Farms Resources- Look up the tools and resources for factsheets on shelterbelt design and enhancing farm dams.

<https://www.sustainablefarms.org.au/>

Melbourne Water Ag-Resilience- This YourSay page has all the Melbourne Water sustainable agriculture information and resources, please subscribe to stay up to date with events, factsheets and project information.

<https://yoursay.melbournewater.com.au/ag-resilience>

KEEP UP TO DATE

For more information about this project or our other activities please contact Karen Thomas on karen.thomas@melbournewater.com.au or visit

<https://yoursay.melbournewater.com.au/ag-resilience>

For an interpreter, please call the Translating and Interpreting Service (TIS National) on 13 14 50



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