



Creating New Habitat for Fauna

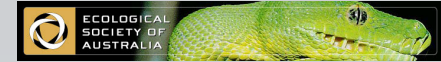
An Australian Perspective on Revegetation in Agricultural Areas



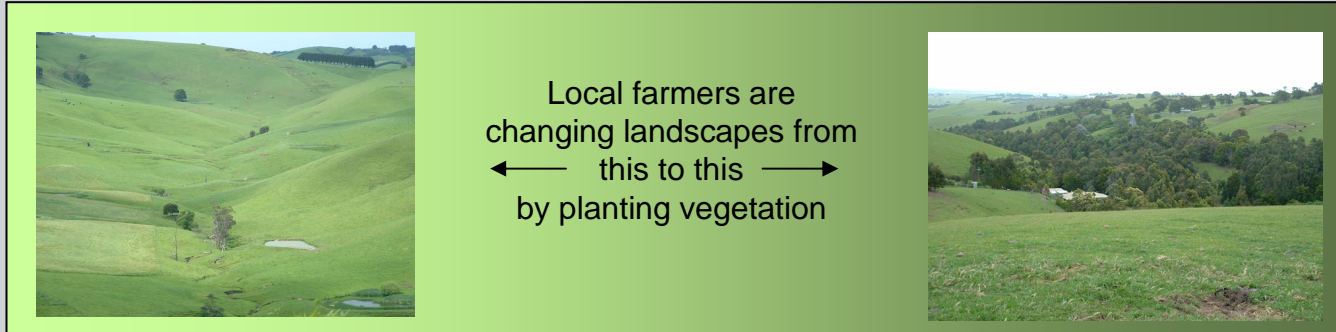
The Fenner School of Environment and Society



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Study location, Gippsland, Victoria



Purpose:

Farmers and communities are revegetating landscapes to repair land degradation and provide habitat for wildlife. How can we revegetate to maximise the value to wildlife?

Objectives:

- to compare the structural complexity and floristic diversity between 'ecological plantings' and 'woodlot plantings' and see if they approach that of remnants over time;
- to compare birds and possums in revegetation plantings and find effects of structural complexity, floristic diversity, age, size, shape and location in the landscape;
- to explore the effects on fauna of amount of vegetation cover in the landscape;
- to explore the trade-off for fauna between quantity and quality of revegetation;

Preliminary results:

Figure 1

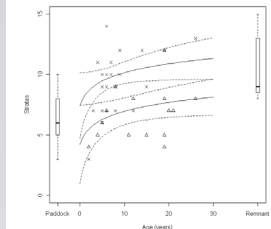


Figure 2

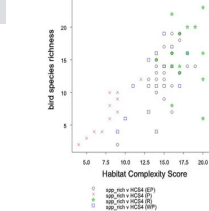


Figure 3

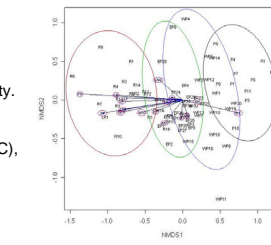


Figure 1: the number of stratas by site type and age of planting. Crosses are ecological plantings, triangles are woodlot plantings. The effect of type and age are significant (both at $P < 0.001$)

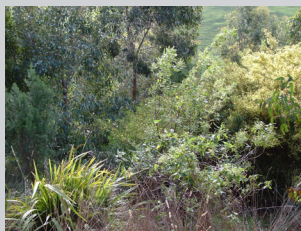
Figure 2: Bird species richness is correlated with a Habitat Complexity Score ($P < 0.001$).

Figure 3: Multidimensional scaling of floristic diversity. Lines lead to the centroid of plant lifeforms. Key lifeforms are prostate shrubs (PS), epiphytes (EP), small herbs (SH), ground ferns (GF), scramblers (SC), large tufted graminoids (LTG), large herbs (LH) and treeferns (TRF). Large circles group site types: remnant (R), ecological planting (EP), woodlot planting (WP) and paddock (P).

Decreasing structural complexity and floristic diversity



Remnant - wet forest, complex, many species, many lifeforms



Ecological planting - moderately complex, many species, several lifeforms



Woodlot planting - simple, few species



Paddock (field) - very simple, few species