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FRAGMENTATION RESPONSES OF BIRDS, INSECTS, SPIDERS AND GENES: DIVERSE LESSONS FOR WOODLAND CONSERVATION

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1. The Noisy Miner controls communities. In terms of bird diversity, anthropogenically induced increases in Noisy Miner activity provide the simplest explanation for differences in the composition of bird communities.
2. All animals are unequal. Vertebrates and invertebrates have very different responses to anthropogenic habitat fragmentation such that small remnants with depauperate bird communities can have very rich invertebrate faunas.
3. Vertebrates have teeth. Despite representing a tiny fraction of biodiversity, vertebrates operate at scales compatible with human comprehension and will continue to dominate public policy.
4. Habitat defies mapping. Variation in fine-scale habitat characteristics means that the number of hectares of different mapped vegetation types provides a poor surrogate for the distribution of biodiversity.
5. Corridors lead to sinks. Few 'corridors' link viable habitats but they increase the amount of over-represented edge habitat. Increasing the viability of remnants through fine-scale habitat improvement reduces the extinction risk and the associated need for linkages.
6. History happens. Much of the present-day distribution of animals in the landscape is a consequence of historical accidents: chance dispersal, habitat loss and extinction.
7. Understand process to protect pattern. Most research in fragmented woodlands has described snapshots of the distribution of biodiversity which does not necessarily reflect the processes that promote long-term survival.

Introduction

White Cypress Pine woodlands (*Callitris glaucophylla*) in combination with box woodlands (*Eucalyptus* spp.) are prominent in landscapes of central-western New South Wales (see map on next page) in the vicinity of the towns of Condobolin, West Wyalong, Grenfell and Forbes (Sivertsen and Metcalfe 1995). This area is one of the oldest and most heavily modified