

Managing grassy native vegetation for conservation on the Northern Tablelands of NSW

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INTRODUCTION

The vegetation of NSW has been altered over the time of European settlement. Grazing pressure is believed to affect vegetation over more than 60% of the State. It is a major cause of decline in native vegetation, leading to major reductions in the abundance of some species and to a number of extinctions of plant species that are particularly sensitive to grazing (Benson 1991). On the Northern Tablelands of NSW, many landholders are managing small grassy areas for conservation with added benefits including more efficient stock management, reserves of feed for drought periods, aesthetics, wildlife corridors, and seed collection for regeneration. These privately managed reserves have important roles in conserving species at a local scale.

METHODS

A total of 328 sites on private land were surveyed over two years from January to April in 2001 and 2002. All plant species within a 6 x 5 m plot were recorded. Twenty-seven sites had a grazing regime managed for conservation. These areas were either destocked or episodically grazed. All other sites were grazed with the primary purpose of commercial livestock production, with regimes varying from set stocking to rotational grazing.

RESULTS

There was significantly higher average native species richness in areas managed for conservation compared with areas not managed for conservation (Table 1). Conversely, there was significantly lower average exotic species

richness in areas managed for conservation than areas managed for production. A total of 131 native species were recorded in areas managed for conservation, including 36 grasses, 10 twiners, 62 other herbs and 16 shrubs. Of these, 54 species were only found in such sites. Some 91 native species were recorded in sites managed for commercial production.

CONCLUSIONS

Grassy remnants managed for conservation are richer in native species, contain fewer exotic species and contain a few species not found in areas managed for commercial grazing. This illustrates their important role in the conservation of native vegetation on the Northern Tablelands. If conservation and aesthetic values are uppermost, then the management of these small areas must be prioritised to ensure that their intrinsic values do not deteriorate.

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REFERENCE

Benson J. (1991) The effect of 200 years of European settlement on the vegetation and flora of New South Wales. *Cunninghamia*, 2, 343-370.

Table 1. Average native and exotic species richness in 6 x 5m plots surveyed on private properties.

	Managed for Conservation	Not managed for conservation	Significance
Number of sites	27	302	
Average Native Species Richness (\pm SE Mean)	18.78 (\pm 1.22)	12.45 (\pm 0.30)	$P < 0.001$
Average Exotic Species Richness (\pm SE Mean)	5.04 (\pm 0.52)	6.86 (\pm 0.18)	$P = 0.004$