Association between breeding Noisy Miners and Grey Butcherbirds and the adverse impact of understorey

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When I commenced monthly surveys in an area of lightly grazed regrowth woodland at Green Wattle Creek, Butterwick (32°40'S, 151°39'E) in 1996 (Newman 2009) there were two colonies of Noisy Miners Manorina melanocephala. The colonies were located at the edge on opposite sides of the wood near land which had been cleared. Between 1997 and 2004 Noisy Miners were numerous and seen on almost every survey (Figure 1). Each survey lasted approximately four hours and involved counting all species of birds (Newman 2009). Initially 10 to 20 individuals were seen during surveys, but after 2000 numbers were lower. Most miners were recorded in the vicinity of the two colonies. As shown in Figure 1, post 2004 there was a progressive decline in the reporting rate (frequency birds were recorded during a survey). The numbers of birds seen on each survey also decreased. By 2010 both of the colonies had been abandoned. In both 2011 and 2012 there were no records of Noisy Miners during the surveys, which involved 48 hours of field observations annually.

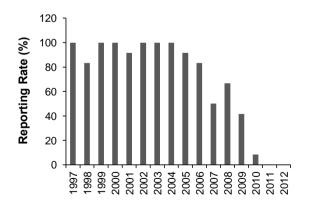


Figure 1. Annual Reporting Rate (%) of Noisy Miners in woodland at Green Wattle Creek during 180 monthly surveys between 1997 and 2011.

It is well known that Noisy Miners prefer dry open eucalypt forests and woodlands without understorey shrubs (Higgins *et al.* 2001: 627).

Hence the decline and eventual elimination of the Noisy Miners from the Green Wattle Creek woodland is attributed to the gradual increase of understorey vegetation following the removal of cattle from the woodland at the start of surveys in 1997.

At both colonies a pair of Grey Butcherbirds Cracticus torquatus had established breeding territories which were abandoned when the Noisy Miners left. While few bird species are tolerated as neighbours by Noisy Miners I had previously noted an association between Noisy Miners, Eastern Rosellas Platycercus eximius and Grey Butcherbirds in Tasmania, suggesting that the Eastern Rosellas benefitted from the Noisy Miners driving out the Common Starling Sturnus vulgaris, which competed for nesting hollows (Blakers et al. 1984: 514). Butcherbirds are known to join with Noisy Miners in mobbing other species (Higgins et al. 2001: 637). The benefit of an association between Noisy Miners and breeding Grey Butcherbirds is less obvious. One possibility is that the butcherbirds can forage more efficiently in an area where other avian species have been driven out by Noisy Miners (D. Dow, pers. comm.). I have only seen this association with Grey Butcherbirds, but it may well occur with Pied Butcherbirds Cracticus nigrogularis as implied by the literature (Higgins et al. 2001: 637).

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