

Mitigation of the threats to the survival of malleefowl, and procedures to maximise the success of reintroductions

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The combination of land clearance, foxes, stock, goats, rabbits and fire has spelt disaster for the malleefowl *Leipoa ocellata*. Vast areas of prime mallee habitat, once supporting high densities of malleefowl, have been lost. The remnants remaining in New South Wales are discontinuous and contain only low densities of malleefowl. Populations of malleefowl in protected areas continue to decline, largely due to the predation of young malleefowl by foxes. Foxes prey so heavily on malleefowl that they severely restrict, or perhaps curtail, the recruitment of young into the breeding population.

A recovery programme for malleefowl in NSW was initiated by the NSW National Parks and Wildlife Service. The primary goal was to establish a single self-sustaining population of malleefowl on Yathong Nature Reserve. The main thrust of the recovery programme was to increase the survival of malleefowl by controlling foxes. Localised fox control using a single bait medium proved only partially effective in reducing foxes to a level where malleefowl survival increased. The use of a range of bait media, the advent of commercially-prepared baits, participation from adjoining land-holders, and indirect poisoning through rabbit baiting eventually proved successful.

Some captive-reared malleefowl released into fox-free habitat were killed by raptors, particularly in areas where the canopy was not contiguous. A re-introduction of captive-bred malleefowl into mallee with a dense understorey and more extensive canopy cover has been highly successful.

As well as the effect of predators, other factors which may influence malleefowl survival were considered. The availability of food to malleefowl in Yathong Nature Reserve during a twelve-month period was investigated. At no time was suitable food absent, but its composition and amount varied greatly from month to month. The relationship between feed availability and age of mallee was also examined.

Future re-introductions of captive-bred malleefowl will be timed to coincide with the period of maximal food abundance.