

We also know that nine released birds spent at least a few months as territory-less wanderers, joining the flocks of juvenile magpies that form each year. In suburban areas, many such flocks are found near backyard wildlife feeders, and it has been these people who report the banded magpies. These flocks are the normal social groups that all young magpies belong to after leaving home and it is the most likely place that they meet their future partners. It seems equally likely that the translocated males, who until recently were successful territory-holders and breeders, will quickly find a mate. Even then, the challenge will be to find a vacant area to be used as a territory. In our study, 31% of the resighted magpies successfully found a mate and were breeding in their new location, far from their original nest and mate.

WHAT ABOUT THE FEMALE AND CHICKS?

Although translocated male magpies are likely to suffer a much higher risk of mortality as a result of their being caught, transported and released in an unknown location, we are confident that many of these birds do survive, and we know that some do successfully re-mate and start again in a new location. But what about the translocated male's previous mate and chicks? After all, almost all translocated magpies are removed when the chicks are large and hungry, requiring the constant delivery of vast amounts of food from their parents. Can the newly 'widowed' female attract a new male and if so, how is he likely to treat the chicks?

When we started to undertake translocations, one of our first observations was that new males appeared to arrive on the scene with astonishing rapidity. As far as we could tell, these were not neighbouring males. Occasionally, a resident male nearby simply expanded his territory to encompass the nest of the female, thereby preventing another male from moving in but this was fairly unusual. Instead, the new males appeared to be 'floaters', unpaired birds that seem to live an almost invisible existence in the local area by keeping a very low profile and waiting, presumably, for the chance to take over a vacant territory. Our removal of a resident male seemed to provide just such an opportunity, and although we really don't know how these birds knew that the original male had gone, they often moved in within a few hours. Certainly it is normal for almost all females of translocated males to have a new male within days at the most.

Although the acceptance of the new male by the resident female may seem to be remarkably quick — and perhaps a little unromantic to us — it is vital that she has a male to maintain the territory boundaries as quickly as possible. Any delay might result in a full takeover by

neighbours with the female perhaps being evicted, something that certainly happens in non-urban populations on a regular basis.²⁶ Territorial defence is one of the most important and continuous occupations of the male, and this is especially important when the female is preoccupied with raising the young. Although most male magpies assist with bringing food to the nestlings, the level of assistance can vary markedly between males.²⁷

Obviously, a female left maintaining a nest full of chicks can use all the help she can get, and it is clear that there is typically little delay in offers from hopeful males. While the female may have welcomed the arrival of a new male, we were rather uneasy about what this might signify. It is something of an evolutionary first principle that males should never be duped into looking after another male's offspring, and many species have developed elaborate means of ensuring that the offspring are their own. In circumstances where the male knows that the young, as with these male magpies, are not his own there are three main options: ignore the chicks but stay around in order to be able to fertilise the next clutch; destroy the young in order to force the female into breeding condition more quickly; or adopt the chicks as his own.²⁸ From our experience, we anticipated that a likely outcome for magpies would be the first: the males would patrol the boundaries but would not look after the chicks, mainly because we thought the female would not let this strange male near her young. We expected this reaction from the female because it is now well recognised throughout the animal kingdom that infanticide is normal when males take over breeding situations in which dependent young are present. The sight of a male lion killing all of the cubs in the pride he has just taken over is a reminder that nature does not share human standards of morality.

Because we knew of dozens of experimental studies in birds where the removal of males had resulted in infanticide,²⁹ we predicted that in at least some of the nests in which we had removed the male, the incoming male would kill chicks. If so, this would have been a tragic outcome of this supposedly 'humane' method of translocation. Indeed, translocation of magpies has been discouraged in some areas because of the possibility of chicks dying.³⁰ Although infanticide was less likely than simple indifference, we thought that the third possible outcome, adoption, was altogether unlikely. However, until we investigated this in detail, we could not say for sure what was going on and, because males were being removed in large numbers anyway, it was simply a matter of watching the interactions between the new males, the female and the chicks.

This important study was undertaken by Tom Neelson during 1999.³¹ Although we removed more than 60 aggressive male magpies that year, Tom concentrated on watching ten pairs where a new male had moved in. By careful observations of marked birds, Tom was able to compare the parental behaviour of these 'stepfathers' and their mates, with ten pairs of normal suburban magpies that were not aggressive toward people. His findings have astounded almost everyone who has heard them: to our complete surprise, the new males not only undertook their territorial duties without delay, they started feeding the chicks as well. Although some males certainly worked harder than others, on average, these new males made more food deliveries to the chicks than the real fathers had done. To our great relief, there was no evidence of either indifference or infanticide.

Although this is not the place to go into the reasons why these new males acted in this way,³¹ the most logical explanation relates to the importance to the male of securing a place as a breeder on an established territory. Having a territory is essential for successful reproduction in magpies; properly handled, this opportunity may mean that this previously non-breeding male has acquired both a home and a mate, provided he can convince the female that he is capable of delivering the goods, in this case by boundary riding and bringing food to the nestlings. This would be a very good reason for males to be the caring new dad after all.

DOES IT WORK?

Finally, then, having established that at least some males live happily after being translocated and that the female and her chicks survive without tragedy after the male has been removed, the question remaining is: does translocation work as a means of addressing the human-magpie conflict?

The answer would have to be a qualified 'yes'. At the most obvious level, the method is wonderfully effective at removing the cause of the conflict: an aggressive magpie. In the overwhelming majority of cases, removing the magpie results in an immediate end to hostilities and people are able to resume their normal activities without the risk of injury or disturbance.