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## THE AUSTRALIAN MAGE

by Ian Rowley

LARGE and conspicuous with its black and white plumage, the Australian Magpie is probably the best known of our native birds and its beautiful carolling gives the lie to the early colonists' report of Australia being 'a land of songless birds'. At a time when we are repeatedly reminded of fauna and flora becoming rarer as a result of land clearing and forest denudation, it makes a pleasant change to write about a species that has benefited from these processes. Magpies are conveniently described as an 'edge species'. They like open spaces, particularly pasture and lawns, over which they stride confidently, probing with their strong bills for the variety of insect life to be found in the top layers of the soil. Foraging space is not their only requirement; they need substantial trees in which to build their nests, where they can rest in the shade during the day and where they can roost in safety at night. Such a suitable combination of short grassy pasture with a scattering of suitable trees is a fringe benefit of habitat fragmentation that from agricultural results development. It is also a resource sought by many magpies and therefore competed for. Possession has to be defended and magpies in Western Australia have evolved an unusual way of life to achieve this. They live in groups of 4-12 birds consisting of several breeding pairs and the progeny of the past two





Top: Male magpie. Below: Female magple.

breeding seasons, most of which remain with the group when they grow up.

The defended territories belonging to the different groups vary in size with the suitability of the habitat. In Kings Park Perth. 400 ha of bush and lawn supported nine groups of magpies (84 birds; 44 ha per group) in 1938 (Wilson 1945). Elsewhere in Perth, around Guildford, I have been studying 13 groups (80 birds; 17 ha per group) surviving well in suburbia. When Angus Robinson (1956) was developing his dairy farm at Coolup, south of Pinjarra, it supported eight groups (70 birds; 44 ha per group) in 1944 and 13 groups by 1954 (135 birds; 30 ha per group), as forest was cleared and replaced by pasture.

The membership of a magpie group is remarkably constant from year to year and for most of the time there is little discord among the members as they forage within sight of each other, share defence of the territory against intrusion and roost in the same patch of trees. Most groups contain equal numbers of adult males and females with one male dominant to the others should a dispute arise. Although group life is usually harmonious it becomes less so in the spring when the adult pairs are preoccupied with each other and their nests, which may be only 50m apart; non-breeders are careful not to conflict with their elders at this time.

It is not always easy to tell the sex of a magpie, although in WA adult males have backs that are entirely white whereas those of females are patterned black and white (see picture). Confusion over Magpies continued from page 1

the sex of immatures arises because all birds less than two years old have mottled black and white backs similar to those of adult females. Fledglings leave the nest with the feathering of the belly a dull black that moults to mottled grey with a brownish tinge within three months. Then and for the next two years the sexes are indistinguishable but their bills give their age away. Adult females (and adult males) have bluish-white bills with a small area of black at the tip; birds in their first year have much darker, leaden coloured bills; those in their second year are lighter coloured with a black tip. Identification of sex is not certain until the immature males show their white backs clearly after their third moult in the February -March of their third year; even then, most retain a few black feathers amongst the white on their backs.



The social structure of a group of magpies is maintained by a variety of calls. The simplest of these is the single note "ka" given at a range of intensities in different situations alerting others to danger, intrusion or annoyance. The tri-syllabic rallying call "kaa.ki.kree" with the middle element short and the last long drawn out is often given in flight as an individual chases an intruder; it tends to gather the members of the group. The begging call of hungry fledglings is familiar to most people and continues over several weeks whenever an adult approaches with food. But it is the carol which is probably the best known vocalisation and which, when given as a coordinated group effort, is one of the most beautiful of birdsongs. Usually given when the group is already gathered together, it may be in response to the completion of a successful territorial

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dispute with a neighbour, the resolution of a within group dispute, or simply as pure "joie de vivre". In succession each member of the group contributes a phrase of song and carolling is probably important in reinforcing social bonding within the group and in the incorporation of young recruits, since fledglings soon begin to try and join in. Another very characteristic song is that of the senior male delivered on his own from a favourite perch, as a territorial and sexual advertisment; it is heard throughout the year except for the summer moult and is given at dawn and dusk - and even in the middle of the night sometimes. As the breeding season approaches this singing provokes response from other neighbouring males.

Nest-building starts in August, and is the responsibility of the breeding female. The choice of a suitable site and the placing of the first twig or two may take several days, but once the base of interlocking twigs is stable the structure grows quickly to the size of a large pudding basin. The female then lines this basket with bark, feathers, bits of wool and other materials that felt to a warm insulated bowl in which the 3-4 eggs are laid. Incubation takes about three weeks and is solely done by the female, who may be fed by the male occasionally, but by and large she has to forage for herself. The pair gets excited as the eggs hatch, both birds bringing small items of food to the naked nestlings, which the female broods when the weather is cool or shades them when hot. When the young feather up (c. 14 days) they



are left more on their own while the pair forages. Very occasionally another male in the group may bring food for the nestlings, especially if his own partner has not bred successfully. Otherwise, the other group members do not help in any way.

Nestlings stay in the nest for about five weeks - a variable time depending on the number of siblings and whether the season has been bountiful in providing insects. This is a time when some males swoop at humans who approach near their nest, particularly small children and people on bicycles. Not all males react in this way and in most cases wearing a hat and carrying a stick to wave above the head is sufficent security. However parents are well advised to take particular care of young children at this time; there are several unfortunate records of damaged eyes due to magpie attack.



Sometimes all the brood leaves at the same time; larger broods tend to spread departure over two or three days. When they leave the nest, fledglings do not fly very well and many land on the ground and are unable to fly up to cover. This is a very vulnerable time for them, and foxes, cats, or dogs may catch and kill them; humans, too, thinking to 'save' the fledgling take them to animal shelters with the best of intentions, breaking the essential parental bonding. After a week, the adults escort the fledgling to another tree where it stays and is fed by both parents. After 2-3 weeks, fledglings will follow their parents to wherever they are feeding and perch nearby calling repeatedly for food. After a fortnight, the young join the adults on the ground and are fed there and gradually the young birds are introduced to group-living. Where there have been two (or more) successful nesting attempts in the group bedlam reigns with fledglings begging at anyone with food and fighting amongst themselves for the rewards. Some birds other than the parents may find such an importunate fledgling impossible to resist and will feed it.

Although many fledglings do not survive the hazards of their first year, once they reach adulthood annual survival is good – males at 85%; females at 79%. This means that 20% of adults have a chance of living for a further ten years, so it is

well worthwhile getting to know your local magpie group and to enjoy following their activities throughout the year.

## References.

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