

## An Analysis of Magpie-Lark Banding

Reference is made to earlier observations on flocking and migration of Magpie-Larks *Grallina cyanoleuca*. Banding figures are given and comments are made on recovery and retrap data relating to movement and longevity.

The Magpie-Lark is found throughout Australia wherever surface water occurs. Rowley (1969) recorded that these birds are strongly territorial and that pairs mate for life. Robinson (1947) recorded breeding territories for the same pairs for a number of years but he said "how imperative it is to band birds, which I have not been able to undertake." Although some birds remained on his property in Western Australia throughout the year he said that others migrated.

Gilbert (1935) recorded the autumn and winter flocking of Magpie-Larks in the coastal area between Wollongong and Wyong, New South Wales. He indicated that individuals moved considerable distances in the formation of the flocks which seemed to be "carried out by western birds alone". He apparently meant birds from west of the Great Dividing Range, but the evidence he presented, being based on observation alone, was scant.

Many aspects of the life history of Magpie-Larks are still obscure. So far banding has not clarified the position to any extent and no long movements have been recorded.

The Seventeenth Annual Report of the Australian Bird-banding Scheme (Purchase 1972) records that 1311 Magpie-Larks were banded and 127 individuals were recovered 147 times to 30 June 1971. While the overall number of individuals recovered (127) is nearly 10 per cent

of the total number banded (1311), the "number of times" figure (147) reveals an average of 1.1 times per individual. These figures indicate how few Magpie-Larks have been recovered more than once.

As opportunity occurred, I banded Magpie-Larks in my garden at Lane Cove, N.S.W. The location is mainly a suburban residential area containing a mixture of native and exotic trees and shrubs in properties, streets and parks; some areas of native bushland have been retained on the fringes. In nearly 14 years from July 1958, I have banded 49 Magpie-Larks and the details are as follows:

Adult males	12
Adult females	7
Juveniles/immatures	22
Nestlings	8
Total	49

Of these, 6 (12%) have been recovered and the details are set out in Table 1; two of the three recoveries were reported by neighbours who know of my bird-banding activities. An examination of the data in Table 1 reveals that only one bird was recovered a second time, two were found dead more than three years after banding, and another was shot. The longest movement recorded was about one kilometre.

Table 2 shows details from the Banding Office records of reported recoveries and movements. Six recoveries (0.4 per cent of the birds banded) have been recovered more than three kilometres from the banding place. The longest recorded movement, about 15 kilometres, was that of a nestling (070-57881) banded by M. H. Waterman near Angle Vale, South Australia on 12

TABLE 1  
Details of Magpie-Larks retrapped and recovered at Lane Cove.

Band Number	Date Banded	Method of Catching	Age	Sex	Date Recovered	Months after Banding	How Recovered	Age	Distance from Banding Place
060-09687	9. 1.66	trapped	juvenile	female	22. 4.69	39	found dead	—	1 km E.
070-22501	6.10.58	at nest	nestling	—	12.11.58	1	netted	juvenile	300 m
070-22508	1. 1.59	netted	juvenile	male	10. 2.59	1	shot	—	400 m
070-22517	27. 9.59	netted	adult	male	15.10.59	—	trapped	adult	—
					21.10.59	—	trapped	adult	—
070-38704	8. 3.63	trapped	adult	male	23.10.64	19	trapped	adult	—
070-47728	7.12.64	trapped	adult	female	23.10.65	10	trapped	adult	100 m
					7. 7.68	43	found dead	adult	300 m

October 1964 which was killed by a cat at Elizabeth Vale on 18 May 1965.

As would be expected, Table 2 indicates that most of the movements have occurred with birds banded as nestlings or juveniles. This may be a somewhat biased effect as this age group would be expected to have a higher mortality rate and a potentially higher initial recovery rate than older birds.

The longest elapsed time recorded between banding and recovery was that of an adult female (070-37106) banded by A. F. D'Ombra in at Stradbroke, N.S.W. on 4 May 1960, which was found dead near the banding place on 26 August 1964, over 4 years 3 months after banding. On present indications, a bird the size of a Magpie-Lark (length 300 mm, wingspan 550 mm) might well be expected to have a greater longevity than four or five years, when numerous thornbills and other small birds have consistently exceeded nine years.

The evidence and argument presented does not explain why so few recoveries should be obtained from a species which frequents human habitation regularly, is not shy or wary and, one would expect, should be easily caught. Excluding the eight nestlings, 25 of those banded at Lane Cove were caught in drop-type traps, 14 were netted and the method of trapping was not recorded in two cases. Only one bird (070-22517) was caught more than twice; on the first occasion it was netted and on both subsequent occasions it was caught in a trap.

At Cattai, N.S.W., where netting has been carried out on more than 70 occasions since 1958, 19 Magpie-Larks have been banded as follows:

Juvenile	4
Immature	3
Adult female	4
Adult male	5
No details recorded	3

No recoveries have been reported from these birds. Only nets were used for catching in this area and from three to about ten were used during a visit.

**Conclusion**

For Magpie-Larks, from the limited evidence available and as indicated from banding records, it would seem that:

- movements over 6.5 kilometres are made by juvenile or immature birds
- movements by adult birds are restricted to less than 6.5 kilometres

TABLE 2

Recorded movements of Magpie-Larks.

Distance from Banding Place	Age When Banded					Totals
	P	J	AM	AF	FF	
Near banding place	1	4	8	1	2	16
Over 1.6 km		1	1			2
Over 3.2 km	2		1	1	1	5
Over 4.8 km	1		1	1	1	4
Over 6.4 km	1					1
Over 8.0 km	1	1				2
Over 9.7 km		1				1
Over 11.3 km						
Over 12.9 km						
Over 14.5 km	1					1
Totals	7	7	11	3	4	32

P - nestling; J - juvenile; AM - adult male; AF - adult female; FF - free-flying (age sex not recorded).

Note: The distances from banding place were converted from the original data in miles.

- the normal life-span of those which reach adult status may be about four years.

There is considerable scope for a co-ordinated co-operative banding project on Magpie-Larks. Further banding of these birds may provide valuable information to support or disprove the above conclusions which are based on a very small sample. Efforts should also be made to determine whether Magpie-Larks are generally trap-shy (at least after being caught once, as this could account for the paucity of retraps) or whether bands are being lost due to excessive wear.

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**References**

Gilbert, P. A. (1935). 'The Seasonal Movements and Migrations of Birds in Eastern New South Wales', Part II, *Emu*, 34: 200-209.  
 Purchase, D. (1972). Seventeenth Annual Report of the Australian Bird-banding Scheme, July 1970 to June 1971, *CSIRO Wildl. Res. Tech. Pap.* No. 25.  
 Robinson, A. (1947). 'Magpie-Larks—A Study in Behaviour', *Emu*, 46: 265-281, 382-391, 47: 11-28.  
 Rowley, I. C. R. (1969). Magpie-Lark in H. J. Frith (Ed.), *Birds in the Australian High Country*, pp. 446-448. A. H. & A. W. Reed, Sydney.

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