

## BIRD-BANDING AND THE MIGRATION OF YELLOW-FACED AND WHITE-NAPED HONEYEATERS THROUGH THE AUSTRALIAN CAPITAL TERRITORY

D. PURCHASE

CSIRO Division of Wildlife and Rangelands Research,  
P.O. Box 84, Lyncham, A.C.T. 2602

*Received 21 October, 1984*

Between April 1961 and June 1983, 21 540 Yellow-faced Honeyeaters *Lichenostomus chrysops* and 7 057 White-naped Honeyeaters *Melithreptus lunatus* were banded at thirty-four places in the Australian Capital Territory. The bands were provided by the Australian Bird-Banding Scheme, CSIRO Division of Wildlife and Rangelands Research.

### *Banding along the Murrumbidgee River in autumn*

Six of the places at which honeyeaters were banded were along the Murrumbidgee River where 12 927 Yellow-faced Honeyeaters and 3 677 White-naped Honeyeaters were banded in March, April and May during the autumn migration of these two species. The banding was undertaken in an attempt to discover the origins and destinations of the Yellow-faced and White-naped Honeyeaters which migrate along the river in autumn. Banding took place in most years from 1963 through to 1977; the majority of birds (88%) were banded in 1964, 1965, 1969 and 1970 (Table 1).

The number of honeyeaters banded along the Murrumbidgee River in autumn varied considerably from year to year. As no information is available on the numbers of honeyeaters which were observed to be migrating at the time, or on what effort was put into capturing them, no explanation can be offered to account for the variation in the numbers banded. Wilson (1963) considers that the weather conditions prevailing at the time have an influence on the number of honeyeaters which move along the river e.g. few migrate when it is overcast.

Although 16 604 honeyeaters were banded along the Murrumbidgee River in autumn, only four Yellow-faced Honeyeaters and two White-naped Honeyeaters were subsequently recovered (Table 2).

In addition to the honeyeaters which were caught and banded, five Yellow-faced Honeyeaters and one White-naped Honeyeater which were already wearing bands were caught along the Murrumbidgee River in autumn. These had been banded some time earlier, either at places along the Murrumbidgee River, but outside of the autumn period, or at places away from the Murrumbidgee River (Table 3).

These twelve recoveries are too few to provide any conclusive information about the origins and destinations of the Yellow-faced Honeyeaters and White-naped Honeyeaters which migrate during autumn along the Murrumbidgee River in the Australian Capital Territory.

### *Banding at other times and places*

In addition to the honeyeaters banded along the Murrumbidgee River in March, April and May, 8 613 Yellow-faced Honeyeaters and 3 380 White-naped Honeyeaters were banded at other places in the Australian Capital Territory, or

TABLE 1

The numbers of honeyeaters banded each year in March, April and May at six places along the Murrumbidgee River in the Australian Capital Territory, and the number of these which were subsequently recovered.

<b>a) Yellow-faced Honeyeater</b>																
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	Totals
Banded	623	1 105	2 011	29		258	4 781	3 343	53	17		143	455	103	6	12 927
Recovered			1				2	1								4
<b>b) White-naped Honeyeater</b>																
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	Totals
Banded	123	683	953	77			1 158	640	3				19	21		3 677
Recovered			1				1									2

TABLE 2

Recovery details of honeyeaters banded in autumn along the Murrumbidgee River.

<b>a) Yellow-faced Honeyeater</b>					
020-77117	26. 4.65	Free-flying.	Pine Island, Murrumbidgee River, A.C.T.*	S.J. Wilson	
	26. 4.65	Retrapped.	Point Hut, Murrumbidgee River, A.C.T.	3 km SSE	
021-41943	4. 4.69	Free-flying.	Point Hut, Murrumbidgee River, A.C.T.	M.T. Murn	
	12. 4.70	Retrapped.	At banding place.		
021-50638	19. 4.69	Free-flying.	Point Hut, Murrumbidgee River, A.C.T.	M.T. Murn	
	14. 9.70	Found dead.	Turner, Canberra, A.C.T.	18 km N	
021-54425	12. 4.70	Free-flying.	Point Hut, Murrumbidgee River, A.C.T.	M.T. Murn	
	4. 5.73	Killed by cat.	Kurrajong, NSW	240 km NE	
<b>b) White-naped Honeyeater</b>					
020-92354	26. 4.65	Adult.	Point Hut, Murrumbidgee River, A.C.T.	M.T. Murn	
	29. 7.67	Retrapped.	Near Fairy Meadow, NSW	190 km NE	
021-41754	4. 4.69	Adult.	Point Hut, Murrumbidgee River, A.C.T.	M.T. Murn	
	25.10.69	Retrapped.	Lee's Creek, Brindabella Range, A.C.T.	22 km WNW	

\*The locations of the sites within the A.C.T. mentioned in the text and in Tables 2, 3 and 4 are shown in Figure 1.

TABLE 3

Details of honeyeaters recovered along the Murrumbidgee River in autumn but banded elsewhere or at other times.

<b>a) Yellow-faced Honeyeater</b>					
020-27357	1.10.61	Free-flying.	Pine Island, Murrumbidgee River, A.C.T.	S. J. Wilson	
	17. 4.65	Retrapped.	At banding place.		
020-45346	18.11.62	Free-flying.	Angle Crossing, Murrumbidgee River, A.C.T.	M.T. Murn	
	27. 4.63	Retrapped.	At banding place.		
020-57634	27.10.63	Free-flying.	Angle Crossing, Murrumbidgee River, A.C.T.	M.T. Murn	
	14. 3.64	Retrapped.	At banding place.		
020-66753	30. 3.64	Free-flying.	Blundell's Creek, Brindabella Range, A.C.T.	M.T. Murn	
	12. 4.64	Retrapped.	Pine Island, Murrumbidgee River, A.C.T.	21 km ESE	
020-93796	31. 7.65	Free-flying.	Grafton, NSW	P.D. Strong	
	3. 5.69	Retrapped.	Point Hut, Murrumbidgee River, A.C.T.	745 km SSW	
<b>b) White-naped Honeyeater</b>					
020-87034	12. 4.64	Adult.	Blundell's Creek, Brindabella Range, A.C.T.	M.T. Murn	
	18. 4.64	Retrapped.	Pine Island, Murrumbidgee River, A.C.T.	21 km ESE	

TABLE 4

Details of other honeyeaters banded in the A.C.T. and recovered more than 10 km from their banding place.

a) Yellow-faced Honeyeater				
020-33775	16. 9.62	Free-flying.	Narrabundah, Canberra, A.C.T.	S. J. Wilson
	23.11.63	Retrapped.	Lee's Creek, Brindabella Range, A.C.T.	
	21.11.64	Retrapped.	Lee's Creek, Brindabella Range, A.C.T.	28 km W
020-43372	27.10.62	Free-flying.	Pine Island, Murrumbidgee River, A.C.T.	S. J. Wilson
	4.11.62	Retrapped.	Murrumbidgee Bridge, Murrumbidgee River, A.C.T.	15 km NW
020-43782	13. 1.63	Free-flying.	Lee's Creek, Brindabella Range, A.C.T.	S. J. Wilson
	5.10.64	Retrapped.	Botanic Gardens, Canberra, A.C.T.	26 km ENE
020-57711	14.12.63	Free-flying.	Uriarra Crossing, Murrumbidgee River, A.C.T.	M.T. Murn
	26. 9.64	Retrapped.	Angle Crossing, Murrumbidgee River, A.C.T.	40 km SSE
020-67664	27. 9.64	Free-flying.	Murrumbidgee Bridge, Murrumbidgee River, A.C.T.	S. J. Wilson
	8.10.64	Hit window.	Forrest, Canberra, A.C.T.	16 km W
021-14288	22. 2.69	Free-flying.	Lee's Creek, Brindabella Range, A.C.T.	S. J. Wilson
	20. 9.70	Retrapped.	Botanic Gardens, Canberra, A.C.T.	
	29.11.70	Retrapped.	Botanic Gardens, Canberra, A.C.T.	
	28.12.70	Retrapped.	Botanic Gardens, Canberra, A.C.T.	
	4. 5.74	Retrapped.	Botanic Gardens, Canberra, A.C.T.	26 km ENE

along the Murrumbidgee River in months other than March, April and May. Of these, six yellow-faced Honeyeaters were later recovered at distances in excess of 10 km from their banding places (Table 4). These recoveries are also too few to provide any conclusive information about the migration of Yellow-faced Honeyeaters. None of the White-naped Honeyeaters were recovered in excess of 10 km of their banding place.

Yellow-faced Honeyeaters and White-naped Honeyeaters are virtually absent during the winter months from New Chum's Road (Lamm and Wilson 1966), Lee's Creek Road, Bushranger's Creek Road, and Blundell's Creek Road, all of which are in the Brindabella Range, A.C.T. (Figure 1). The banding and recapture of Yellow-faced Honeyeaters and White-naped Honeyeaters at these places since 1961 have shown that many individual birds return to them year after year. However, banding has not shown where they go in the winter months.

A total of 6 557 Yellow-faced Honeyeaters and 2 539 White-naped Honeyeaters have been banded in the Brindabella Range. Of these, 2 754 Yellow-faced Honeyeaters (42%) and 1 061 White-naped Honeyeaters (42%) were banded during March, April or May at Blundell's Creek Road. These relatively large totals suggest that Blundell's Creek Road may be on an autumn

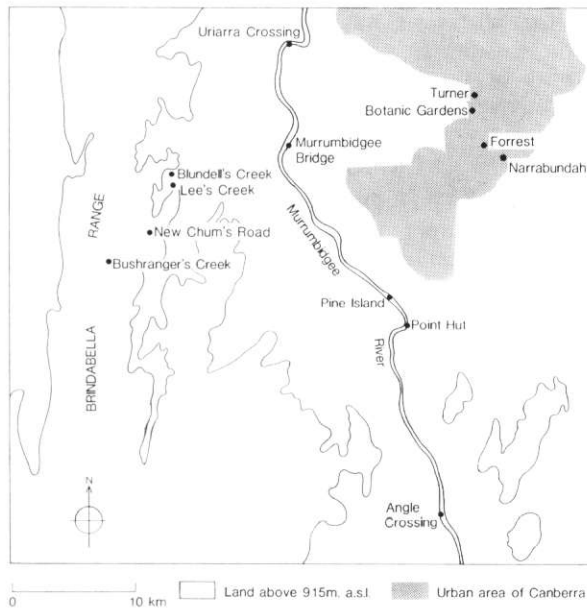


Figure 1. Sites in the A.C.T. mentioned in the text at which Yellow-faced Honeyeaters and White-naped Honeyeaters have been banded or recovered.

migration route for these honeyeaters. Despite the large numbers banded at Blundell's Creek Road during autumn only one Yellow-faced Honeyeater and one White-naped Honeyeater were subsequently recovered more than 10 km away (see Table 4).

### DISCUSSION

Despite the very large numbers of Yellow-faced Honeyeaters and White-naped Honeyeaters which have been banded in the Australian Capital Territory the banding of these species has told us very little about their migrations. The continuing failure to obtain this information was the reason why the large-scale banding of these species along the Murrumbidgee River in autumn was discontinued in 1970 — continuation of the banding would have been a waste of bands, time and effort, and the meagre quantity of information being obtained would not justify the disturbance caused to the birds by banding.

With hindsight, it seems a pity that the effort which was put into the banding of Yellow-faced Honeyeaters and White-naped Honeyeaters along the Murrumbidgee River could not have been put into a visual census of the migration of these species in the Australian Capital Territory. This may have yielded far more useful information. There is no doubt, however, that the banding had to be done to see what results could be obtained. It is to the credit of the researchers concerned that they stopped the mass banding of honeyeaters when they found that it was providing so few results.

Banding has an important role to play in the study of bird migration and many overseas studies of bird migration rely heavily on reports received from the public about the recovery of banded birds. In Australia the public have reported the recovery of relatively few banded passerines, e.g. of the 28 597 Yellow-faced Honeyeaters and White-naped Honeyeaters banded in the Australian Capital Territory only four (0.014%) were subsequently reported by the public. It is important therefore that ornithologists keep in mind the likelihood of only relatively few recoveries from the public when they are planning any projects which involve banding as a technique to study the migration of small passerines in Australia (Wilson 1965, Purchase 1970). As demonstrated in this note, little will be gained by simply banding large

numbers of small passerines, such as Yellow-faced Honeyeaters and White-naped Honeyeaters, in the hope that sufficient numbers will be recovered away from the banding place to provide an adequate understanding of their migrations.

If banding is to be used successfully in Australia to study the migration of small passerines then the studies must be designed so that the banders themselves, or collaborating banders, undertake to recover the birds which are banded. This is probably best achieved, at least in the first place, by the banding of large numbers of birds at several places in a restricted area, perhaps about 500 km<sup>2</sup>, or along a suspected migration route, in order to gain information about their migrations over short distances. Where possible, this banding should be undertaken as an adjunct to the visual studies of migration of the type proposed by Davey, Prendergast and Taylor (1984). These visual studies will help to locate the most suitable places at which to band birds and so achieve the best possible return for the effort and bands which will be expended.

When an understanding of migration over short distances has been achieved, it will then be possible to use this information in the planning of projects designed to understand migration over much greater distances.

### ACKNOWLEDGEMENTS

I thank Chris Davey who provided the stimulus for this paper and Claire Pontin who assisted with the tedious task of extracting the banding and recovery totals.

The paper was improved by helpful comments from Bunny Fennessy, Sonia Tidemann and Steve Wilson.

### REFERENCES

- Davey, C., Prendergast, H. D. U. and Taylor, I. (1984). Honeyeater migration through the Canberra region. A project proposal. *Canberra Bird Notes*, 9: 142-146.
- Lamm, D. W. and Wilson, S. J. (1966). Seasonal fluctuations of birds in the Brindabella Range, Australian Capital Territory. *Emu* 65: 183-207.
- Purchase, D. (1970). The Australian Bird-banding Scheme — its problems and future. *Ring* 63: 25-31.
- Wilson, S. J. (1963). Further notes on autumn migration of honeyeaters. *Bird Bander* 1: 123-125.
- Wilson, S. J. (1965). The President's message — towards better banding. *Aust. Bird Bander* 3: 55.