

# BIRD BANDER

## A Review of the Co-operative Silvereye Project

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This review outlines some of the results obtained from a co-operative project involving the banding of over 100,000 silvereyes since 1958; numerous banders in four states and the Australian Capital Territory have participated. Reference is made to the initial aim and its achievement, and to the value of the published articles which have added considerably to the knowledge of the life history of the species. Some questions are posed and some guidelines given for future activities.

### Introduction

In November 1970, schedules received at the Banding Office took the number of Eastern Silvereyes *Zosterops lateralis* banded in eastern Australia past 100,000, the first species total to exceed this figure. The total is a credit to the banders who have participated in the Project, particularly those who have done so for some years. Table 1 shows the number banded each year as detailed in the annual reports of The Australian Bird-banding Scheme.

Formerly silvereyes were considered to be sedentary or at the most, somewhat nomadic. Considerable doubt existed among many Australian ornithologists following A. J. Keast's publication (1958) of the theory that silvereyes from Tasmania were found in New South Wales and the south-east corner of Queensland during "winter" movement.

### Aim

The initial aim of the project was to endeavour to prove Keast's theory. If the theory were correct, the achievement of the aim seemed feasible because of the habits of these birds. Apart from an insectivorous diet, silvereyes feed on a variety of soft foods. They are common in suburban gardens, were known to be attracted to food scraps particularly during cold, wet conditions

TABLE 1

Number of Eastern Silvereyes banded each year since July 1965; except for the First Report which covered the period from October 1953 to June 1955, the periods are from 1 July to 30 June.

Report	Period	Number Banded	Progressive Total
First	1953-1955	6	6
Second	1955-1956	9	15
Third	1956-1957	16	31
Fourth	1957-1958	81	112
Fifth	1958-1959	1,174	1,286
Sixth	1959-1960	3,095	4,381
Seventh	1960-1961	3,053	7,434
Eighth	1961-1962	6,443*	13,877
Ninth	1962-1963	11,648*	25,525
Tenth	1963-1964	14,369*	39,894
Eleventh	1964-1965	14,808*	54,702
Twelfth	1965-1966	14,332*	69,034
Thirteenth	1966-1967	8,183	77,217
Fourteenth	1967-1968	10,916*	88,133
Fifteenth	1968-1969	4,495	92,628
Sixteenth	1969-1970	7,475*	100,103
Seventeenth**	1970-1971	6,011*	106,114

\* Largest species total for the period

\*\* Not yet published

NOTE: The total shown for the Thirteenth Report was considerably lower than the previous four years due to a general reduction in banding following the introduction of a new policy in January 1966. Subsequent figures undoubtedly reflect the extremely dry conditions experienced in most of eastern Australia since that time. Extensive bushfires destroyed large areas of habitat and a reduction in breeding resulted in an obvious drop in bird populations generally.

TABLE 2

Details of Eastern Silvereyes recovered more than 300 kilometres (186 miles) from banding place

Band Number	Date Banded	Where Banded	Bander	Where Recovered	Date Recovered	Distance		Direction		Recovered By <sup>100</sup>	Status
						Kilometres	Miles				
010-06887	20. 6.59	Lane Cove, N.S.W.	Lane	Rosevears, Tas.	19. 1.60	917	570	SSW		—	Dead
010-18100	1.10.60	Kulnura, N.S.W.	Lane	Rathdowney, Qld.	23. 8.61	595	370	NNE.		—	Dead
010-32200	28. 8.61	Bandon Grove, N.S.W.	Dowling	Tianjara, N.S.W.	8. 7.62	340	210	SSW.	Belton		Alive <sup>101</sup>
010-34267	9. 7.61	Hobart, Tas.	Meldrum	Eastwood, N.S.W.	9. 8.62	1,070	665	NNE.	Hoskin		Alive <sup>101</sup>
010-09570	17. 8.61	West Tamar, Tas.	Green	Eastwood, N.S.W.	18. 8.62	917	570	NNE.	Hoskin		Alive <sup>101</sup>
010-36546	9. 6.62	South Grafton, N.S.W.	Burnett	Canberra, A.C.T.	23. 9.62	732	455	SW.		—	Dead
010-10425	2. 8.59	North Ryde, N.S.W.	Lane	Rosebery, Tas.	12.11.62	1,030	640	SW.		—	Dead
010-58905	1. 9.62	Eastwood, N.S.W.	Hoskin	Bega, N.S.W.	19. 1.63	348	215	SSW.		—	Dead
010-22076	9. 8.62	Eastwood, N.S.W.	Lonnon	near Moe, Vic.	25. 4.63	660	410	SSW.		—	Dead
010-67681	31. 3.63	Riverside, Tas.	Liddy	Turrumurra, N.S.W.	10. 8.63	917	570	NNE.	Walker		Alive <sup>101</sup>
010-43261	16. 6.63	Sutherland, N.S.W.	Wheeler	Exeter, Tas.	17. 6.64	901	560	SSW.	Meldrum		Alive
010-91326	13. 2.64	Birkdale, Qld.	Robertson	Canberra, A.C.T.	16. 8.64	982	610	SSW.	Wilson		Alive <sup>101</sup>
010-98280	15. 6.64	Cudgeon, N.S.W.	Liddy	Silvan, Vic.	15.11.64	1,324	823	SW.		—	Dead
010-78709	20. 5.64	Pendle Hill, N.S.W.	Curran	St. Marys, Tas.	25.11.64	901	560	SSW.		—	Dead
011-12723	8. 8.64	Loddon River, N.S.W.	Strong	Minnie Water, N.S.W.	11. 7.65	547	340	NNE.	Strong		Alive <sup>102</sup>
020-17871	10. 7.60	Fort Fairy, Vic.	Bowker	Minnie Water, N.S.W.	14. 8.65	1,432	890	NE.	Strong		Alive <sup>102</sup>
010-12230	8. 7.63	Launceston, Tas.	Green	near Uralla, N.S.W.	10. 9.65	1,287	800	NNE.		—	Dead
010-89556	13. 6.65	Clarendon, S.A.	Melvin	Meridith, Vic.	17.10.65	571	355	ESE.		—	Alive <sup>101</sup>
011-56251	26. 3.66	Dunmore, Vic.	Ross	Nildottie, S.A.	April '66	453	282	NNW.		—	Dead
011-56254	26. 3.66	Dunmore, Vic.	Ross	Nildottie, S.A.	April '66	453	282	NNW.		—	Dead
011-13608	3. 7.65	Hastings Point, N.S.W.	Liddy	Don, Tas.	14. 5.66	1,601	995	SSW.		—	Dead
011-90911	13. 3.67	Wilson's Prom., Vic.	Gower	Tatham, N.S.W.	8. 7.67	1,304	810	NNE.		—	Dead
011-53463	15. 5.66	Beaumont, S.A.	Paton	Skipton, Vic.	24. 8.67	531	330	SE.		—	Dead
012-04354	1. 7.67	St. Ives, N.S.W.	Spurge	Wilson's Prom., Vic.	15.10.67	724	450	SW.		—	Dead
010-65737	5. 8.67	Lismore, N.S.W.	Benham	Swifts Creek, Vic.	7. 3.68	1,102	685	SSW.		—	Dead
011-28250	23. 8.65	Lane Cove, N.S.W.	Lane	Bega, N.S.W.	18. 5.68	348	215	SSW.		—	Dead
011-44651	13. 8.66	Waikerie, S.A.	Mack	Inglewood, Vic.	Sept. '68	413	257	SE.		—	Dead
011-61589	30.12.68	Mallacoota, Vic.	Lane	Lane Cove, N.S.W.	6. 7.69	444	276	NNE.	Lane		Alive
012-00510	20. 4.68	Mt. Keira, N.S.W.	Cramer-Roberts	Cape Paterson, Vic.	19. 1.71	647	412	SW.		—	Dead
012-14678	22. 3.68	Five Dock, N.S.W.	Swanson	Barooga, N.S.W.	13. 6.71	547	340	WSW.	Gove		Alive <sup>102</sup>

<sup>100</sup> Where the recovery was by a bander the name is shown.

<sup>101</sup> Released with band.

TABLE 3

Examples showing the number of times some individual silvereyes were caught in each month (Sydney district).

Band Number	010 10679										010 10358					010 66137	010 66138			
	Year	'60	'61	'62	'63	'64	'65	'66	'67	'68	'69	'59	'60	'61	'62	'63	'64	'65	'64	'65
Jan.			5			1								1				4		3
Feb.												1	1					1		
Mar.			2				1		1					1		2		4		3
Apr.			1											2				2		2
May							2											2		1
June		1											1							
July		2										1			1		2	1		1
Aug.		2	1	1			1					1	2		1			2		2
Sept.			1							4		3		1	1			2		1
Oct.		2																		
Nov.		1				1														1
Dec.		3											2							

and were easily trapped. For these reasons they were also considered a suitable species for initial bander training when the Banding Scheme widened its sphere of operations in 1958.

### Results

A direct result of the project has been the publication in this Journal of 19 articles and notes on the Eastern Silvereye by 9 authors; the information published in these papers has added considerably to the knowledge of the life history of this species.

The first confirmation of Keast's theory occurred when a silvereye which I had banded in my garden at Lane Cove on 20 June 1959 was killed by a cat at Rosevears, Tasmania on 19 January 1960. Details of this and six other long distance recoveries were recorded in *The Bird Bander*, vol. 1, no. 2, page 12 (Lane 1962). Five of these recoveries are the first five listed in Table 2, which summarises details of silvereye recoveries for distances exceeding 300 kilometres (186 miles). Forty-five other recoveries have been reported for distances between 50 kilometres (31 miles) and 300 kilometres, and many more for lesser distances.

These records prove that there is considerable movement by some silvereyes in eastern Australia; most of the movement takes place at night (see Lane and Battam, 1971). A revision of the map of silvereye movements (Hitchcock, 1966) as suggested by Robertson (1971) is contemplated.

### Resident or Sedentary Birds

The sedentary status of some silvereyes at Five Dock, N.S.W. has been clearly indicated by N. M. Swanson (1968). At Mosman, another Sydney suburb, J. Bradley (1963) stated that her records showed "... a very high percentage of resident birds and a high retrap rate, particularly of birds banded in summer".

An analysis of data for some "local" birds retrapped regularly at Lane Cove is set out in Table 3; this shows the number of times that each bird was caught during each month. In some instances such as 010-10358, the bird was not caught during the months when breeding occurs in this area; possibly the trapping site was beyond that bird's feeding range from its nest. Although not so conclusive as Swanson's data, similar sedentary status is clearly indicated.

### Other Aspects

The various authors have dealt with aspects such as feeding, trapping, longevity, plumage, weights and moult. Additional papers are planned to confirm, elaborate on, and add to the information already published. Those interested in this study are reminded that analyses of results from different areas are most important, because what applies in one place is not necessarily the case in another place.

### Hypothesis

At the Congress of the Royal Australasian Ornithologists' Union in Canberra, A.C.T. on 14 October 1968, I stated that there appeared to be two breeding populations of silvereyes in at least some areas of eastern Australia, one which was sedentary and one which migrated; a similar habit was also indicated with some species of honeyeaters such as the Yellow-faced Honeyeater *Meliphaga chrysops* and the White-naped Honeyeater *Melithreptus lunatus*. Discussion on, and some evidence of this hypothesis will be included in a later paper.

Conclusive evidence of the hypothesis is difficult to obtain and will not be acquired quickly but Dr H. Elliott McClure (pers. comm.) has found similar habits in comparable temperate areas in Asia.

### The Future

The initial aim of the Project has been achieved but like so many studies, in proving one facet, many other questions arise, and this has certainly been the case here.

Some questions for future consideration follow:

- What is the origin and extent of movement of migratory silvereyes—where do they breed and where do they go?
- What routes do they follow and do they use the same routes for the return?
- How long do they take to move from their breeding areas to their wintering areas?
- Is there any plumage variation distinguishing sedentary and migratory birds which breed in the same area?
- Do young birds of the year follow similar patterns of movement as the adults?

A lot more work is needed to provide adequate evidence and answers to some or all of these

questions. However, those participating in the Project are requested to place emphasis on—

- banding breeding birds,
- banding nestlings,
- recording plumage details in every instance, particularly for breeding birds.

### Conclusion

This review of the Co-operative Silvereye Project is to serve as an introduction to a number of papers which will deal with various aspects of the study; these papers are planned for publication within a year or so.

The bibliography lists all the articles and notes published in *The Australian Bird Bander*, and also the other papers referred to here.

Continuation of the Project should provide answers to some of the questions raised, adding further to the knowledge of the life history of the Eastern Silvereye.

### Bibliography

- Bradley, J. (1963), 'Six Years' Silvereye Banding—An Analysis', *Bird Bander*, 1:93-7.
- Bradley, J. B. (1968), 'Old Silvereyes', *Aust. Bird Bander*, 6:34.
- Gwynn, A. M. (1962), 'The Silvereye Project', *Bird Bander*, 1:5-7.
- Hitchcock, W. B. (1966), 'Tenth Annual Report of the Australian Bird-banding Scheme, July 1963 to June 1964', *CSIRO Wildl. Res. Tech. Pap.*, No. 11.
- Keast, J. A. (1958), 'Races, Colonisation and Migration in the Silvereye', *Gould League Notes*, 24:10-3.
- Lane, S. G. (1962), 'Notes on Recoveries of Tasmanian Type Silvereyes in Sydney', *Bird Bander*, 1:11.
- Lane, S. G. (1962), 'Long Distance Recoveries of Silvereyes', *Bird Bander*, 1:12.
- Lane, S. G. (1962), 'Silvereye Recoveries in the Sydney District', *Bird Bander*, 1:29-33.
- Lane, S. G. (1964), 'Silvereye Longevity', *Aust. Bird Bander*, 2:51.
- Lane, S. G. (1965), 'Senior Silvereyes', *Aust. Bird Bander*, 3:14.
- Lane, S. G. (1966), 'The Co-operative Silvereye Project', *Aust. Bird Bander*, 4:73-5.
- Lane, S. G. and Battam, H. (1971), 'Silvereye Movement in Eastern Australia', *Aust. Bird Bander*, 9:80-2.
- Liddy, J. (1963), 'Silvereyes, Fennel, and Carrot Aphids', *Bird Bander*, 1:109-10.
- Liddy, J. (1966), 'A Summary of Silvereye Banding', *Aust. Bird Bander*, 4:71-3.
- McKean, J. L. (1965), 'Weights of the Silvereye at Canberra', *Aust. Bird Bander*, 3:43-4.
- Robertson, J. S. (1971), 'South-east Queensland Aspects of the Co-operative Silvereye Project', *Aust. Bird Bander*, 9:51-5.
- Swanson, N. M. (1968), 'Suburban Silvereyes', *Aust. Bird Bander*, 6:5-7.
- Swanson, N. M. (1971), 'Moult in the Eastern Silvereye', *Aust. Bird Bander*, 9:75-80.
- Walker, D. M. (1962), 'Three Years' Silvereye Banding—An Analysis', *Bird Bander*, 1:26-9.
- Walker, D. M. (1964), 'The Relationship Between Plumage Colouration, Breeding Location and Body Weight in the Silvereye (*Zosterops lateralis*)', *Aust. Bird Bander*, 2:79-81.

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