

# BIRD BANDER

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## Crested Pigeon Banding at Sutherlands and Bower, South Australia

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Nearly 50 years ago the Crested Pigeon *Ocyphaps lophotes* established itself as an addition to the avifauna of the Mount Mary Plains, South Australia. Prior to that time it occurred mainly in the adjacent part of the Murray River Valley. Clearing of scrub and the provision of water for domestic livestock probably caused some dispersion of the species westward towards the Mount Lofty Ranges. However, the greater part of the increase in numbers almost certainly resulted from a movement southwards from the interior of the State as described by McGilp (1937). A somewhat similar spread of the species was reported in Western Australia by Serventy (1962).

Previously I described the local habits of the Crested Pigeon and discussed its breeding biology (Boehm 1955). Nowadays the birds are seen in pairs and small flocks of up to 20 birds. On rare occasions large gatherings of up to 70 birds have been seen at sites where sheep have been hand-fed in times of severe drought. In an effort to discover the status of the local population, banding of this species commenced in December 1964.

### Method of Catching

Initially mist nets were used; these were standard gauge nets obtained for general banding of smaller species and are unsuitable for pigeons. The small mesh does not entangle the pigeons, most of which escape by fluttering out of the folds or "pockets". Only 11 were banded from mist nets including two banded west of Bower by Messrs R. M. Gibbs and M. H. Waterman in October 1963. No retraps have been obtained from mist nets and this method was soon abandoned.

Drop nets were then tried and better results were obtained including some retraps. Nineteen birds were banded from drop nets.

Subsequently maze traps were employed and the capture rate increased immediately. Using maze traps, 134 Crested Pigeons were banded to 30 June 1972 and 62 were retrapped 224 times. All trapping was done near Erdora Homestead, east of Sutherlands.

### Handling

Pigeons require careful handling as bruising and traumatic shock may impair their flight and make them easy prey for predators. An experienced bander can handle the birds without causing such injury. The pigeon should be held lightly and firmly in the left hand, on its back, against the operator's body just above the front of the left hip. In this position the band can be placed on the leg, or if already banded, the number can be read easily. The wings must be secured firmly to prevent injury by straining the wing muscles. Blösch and Flügel (1968) re-

ported shock disablement of flight muscles of birds in Europe in the proportion of 1 in 1000 individuals netted and banded, but a much higher proportion will result with pigeons unless they are handled very carefully. After removal from the traps the pigeons should be placed in hessian bags until they are processed. I have found that a zip fastener is more easily operated by one person than a pull string.

**Retrapping**

A total of 183 birds has been banded in the area to 30 June 1972, of which 19 were nestlings and 164 were free-flying birds; 67 birds have been retrapped 237 times. Table 1 shows the number of birds recovered at varying intervals after banding; individual birds are included once only in any category but they appear in each category in which they were retrapped.

Some birds banded together were subsequently retrapped together later. Two banded together were retrapped together three months later, another two at eight months and two more 16 months after having been banded together. Only one pigeon has been recovered any significant distance from the banding place. This was 081-19847, banded east of Sutherlands on 23 July 1966 and found dead between Bower and Mount Mary on 6 November 1966, over 10 km from the banding site. The longest elapsed time be-

TABLE 1

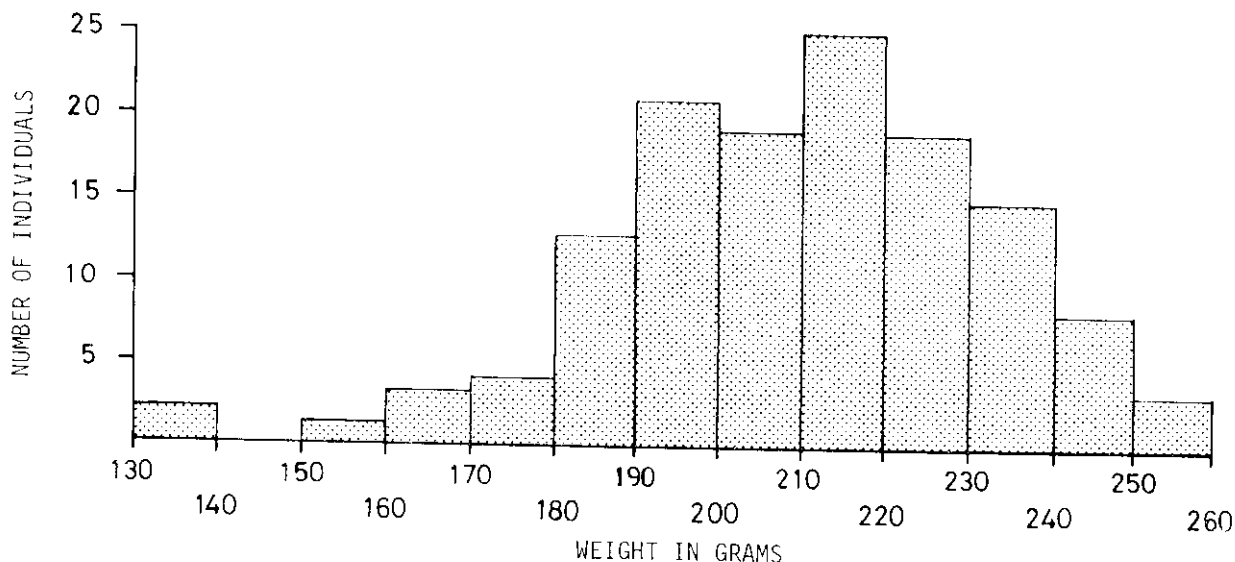
Number of Crested Pigeons recovered at varying intervals after banding.

Months After Banding	Number Recovered
Within 1 month	26
1 to 6 months	39
7 to 12 months	26
13 to 24 months	15
25 to 36 months	8
37 to 48 months	4
49 to 60 months	4
61 to 72 months	1
73 months	1

tween date of banding and last recovery was 081-19836 banded east of Sutherlands on 9 January 1966. It has been retrapped 17 times, the last occasion being on 25 February 1972, six years one month and sixteen days after banding.

**Weighing**

Some weighing was done to determine the range of variation between individuals and the individual variation at different times. Weights of 133 free-flying birds ranged from 133 g to 257 g. Generally adults ranged in weight from 195 g



• Figure 1. Weights of 133 individuals grouped in ranges of 10 grams.

TABLE 2  
Weights and weight variations (in grams) in individual birds.

Band Number	Trapping Date and Weight				Minimum Weight	Maximum Weight	Mean Weight	Variation		
081- 19836	11.12.68	216	12. 5.70	225	18.10.71	224	204	235	219	31
	6. 6.69	230	1. 1.71	210	25. 2.72	218				
	26.10.69	216	14. 1.71	235						
	9. 1.70	204	1. 5.71	214						
081- 19856	10. 7.68	230	27. 6.69	196	13. 1.71	220	196	239	223	43
	27. 9.68	221	15. 1.70	220	25. 4.71	223				
	7.10.68	239	1. 4.70	225	20. 7.71	231				
	5. 2.69	209	22.11.70	235						
081- 19898	3. 9.69	243	13. 2.71	216	18. 4.71	212	212	243	223	31
	8. 8.70	228	24. 3.71	212	29.11.71	229				
081- 19899	3. 6.69	234	3.10.70	221			221	253	234	32
	15. 8.69	253	20. 7.71	230						
081- 19900	30. 8.69	236	27. 5.70	213	13. 2.71	214	203	236	217	33
	9. 1.70	215	17. 9.70	217						
	12. 5.70	221	1.12.70	203						
081- 33403	9.12.68	215	12. 6.70	225	17. 9.70	238	215	238	226	23
081- 33405	11.12.68	230	9. 1.70	243	1. 1.71	248	230	248	240	18
081- 33454	9. 1.70	224	25. 9.70	243	10. 1.72	221	199	243	226	44
	1. 4.70	235	30. 9.70	228	28. 4.72	234				
	29. 4.70	199	14. 3.71	218						
	1. 9.70	227	24. 3.71	232						

to 240 g; a few individuals exceeded 240 g, the heaviest being 257 g. Birds weighing less than 190 g were immature or 'probable' immature birds. The histogram (Fig. 1) shows the weights of the 133 individuals grouped in ranges of 10 g. The weights were taken either at the time of banding or, in some cases at the first convenient retrapping, if not taken previously.

A large individual variation was recorded for some birds weighed a number of times. The details for eight of these are set out in Table 2. In two cases the difference between the lightest and the heaviest weight for the individual exceeded 40 g, an increase of over 20 per cent.

From an examination of Table 2 it is clear that this variation is not seasonal and appears to be due mainly to the amount of food and water consumed prior to weighing.

### Discussion

Juvenile and immature Crested Pigeons may be recognised by their dull colouration, particularly the absence or paucity of iridescence on the wings, and the pale pink legs and feet.

It is significant that birds in the light-weight group (less than 190 g), either immature or 'probable' immature birds, were not usually retrapped. As such they were most likely unattached birds passing through the banding station. Neither were any of the 19 nestlings retrapped. This seems to support the conclusions of Nielsen (1965) in Queensland that generally immature Crested Pigeons soon leave their natal area.

### References

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