

Laboratory rearing of woodpigeons (*Columba palumbus*)

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Summary

18 woodpigeons were reared. Weight gain was similar to that of wild-reared birds if they were collected from the nest at 5–11 days of age, but slower if they were collected later.

The woodpigeon (*Columba palumbus*) is an agricultural pest in Britain. As part of a field and laboratory study of pigeon-scaring methods, we have reared woodpigeons in captivity. There are very few reports on hand-rearing of woodpigeons in laboratory conditions. Colquhoun (1951) recorded the bodyweight of squabs (young pigeons) during laboratory rearing. These weights were much lower than those recorded by Murton, Isaacson & Westwood (1963) for birds of comparable age in field studies. Kenward & Sibly (1978) also reported the hand-rearing of woodpigeons. The present paper deals with the methods of rearing and with weight gain in the laboratory.

Materials and methods

Squabs 5–14 days old were collected from the wild during July, August and September 1980. Age was determined by regular visits to nests with eggs. On collection the birds were marked individually with coloured celluloid rings. The weight was noted in the morning after collection and once a week up to the age of 28 days. They were reared in plastic poultry cages (78 × 54 × 30 cm) in an outdoor wooden shed (3.0 × 1.8 × 1.5 m). The cages were provided with a bedding of straw or hay. Each cage contained 1–2 squabs from a single nest.

The feeding schedule is summarized in Table 1. For the first 7 days of their life the squabs were

fed twice daily with 10 ml raw hen's egg mixed with a preparation containing vitamins A, B, B₂, B₆, C, D and nicotinamide ('Abidec'; Parke, Davis & Co., Pontypool, UK) and another containing vitamin A and D, calcium, phosphorus, magnesium, iron, manganese, zinc, copper, iodine and cobalt ('Stress'; Phillips Yeast Products Ltd, London, UK). A hypodermic syringe fitted with a flexible tube, 5 cm long and 5 mm in diameter, was used. Care was taken not to exert too much pressure when opening the beak. From day 8 the diet consisted of 10 ml raw egg plus 'Abidec', 'Stress' and 10 g ground-grain mix plus turkey starter in water. The ground-grain mix (2 parts maple peas, 3 parts maize, 3 parts wheat) was mixed in the ratio 2:1 with turkey starter. From day 15 the ground-grain mix plus turkey starter was increased to 15 g, raw egg was decreased to 5 ml, whilst 'Abidec' and 'Stress' were continued. At the age of 22 days the young pigeons were released from the poultry cages into the wooden shed. Hand feeding of 20 g ground-grain mix plus turkey starter was continued each morning up to day 28. 'Abidec' and 'Stress' were given in 5 ml of water. Mixed grain and water were available ad libitum. The pigeons were then transferred to an outdoor aviary, provided with perches and roosting boxes, where mixed grain, pigeon's grit and water were available ad libitum.

Results

The mean bodyweight of hand-reared pigeons at 21 days (Table 2) was only slightly less than the weight mentioned by Murton *et al.* (1963) from field studies and much greater than that obtained by Colquhoun (1951) after laboratory rearing.

Table 1. Hand-feeding schedule for young woodpigeons

Age (days)	Raw egg (ml)	'Abidec' (drops)	'Stress' (mg)	Ground-grain mix + turkey starter (g)	Times fed per day
0–7	10	5	1	0	2
8–14	10	5	1	10	2
15–21	5	5	1	15	2
22–28	0	5	1	20	1

Table 2. Bodyweights of woodpigeons in this study and in 2 others

Age (days)	Age collected (days)	n	Mean weight \pm sd (g)	Source
21	5-14	18	293.0 \pm 16.0	this study
21	21 (Wild)	14	312.0	Murton <i>et al.</i> (1963)
21	6-14	12	252.0	Colquhoun (1951)
28	5-11	10	367.5 \pm 14.0	this study
28	12-14	8	333.0 \pm 25.9	this study
28	5-14	18	352.3 \pm 26.2	this study
28	6-14	16	292.0	Colquhoun (1951)

Squabs collected at the age of 12-14 days, which were difficult to hand-feed, gained less weight than those collected at 5-11 days of age.

Discussion

The diet and rearing methods described in this paper were found to be successful in rearing 18 squabs. These pigeons remained in good health during the following year. Present work supports Colquhoun's (1951) statement that squabs collected at the age of 12-14 days show an intense fright reaction. The difficulty of hand-feeding may be a cause of slow weight gain by these birds.

Opinions differ concerning the fledging time of woodpigeons, when they are capable of flight from the nest. Alexander (1940) gave it as 3 weeks, while Colquhoun (1951) reported that undisturbed birds fledged between 20 and 35 days. Murton (1963) reported a fledging age of 21.6 days, and Robins (cited by Murton *et al.*, 1963) a mean fledging age for 72 broods of 28.7 days. During the present work all birds could fly from place to place and feed themselves until the crop was full by 28 days of age.

References

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Aufzucht von Ringeltauben (*Columba palumbus*) unter Laborbedingungen

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Zusammenfassung:

18 Ringeltauben wurden aufgezogen. Wurden die Tiere im Alter von 5-11 Tagen aus dem Nest geholt, verlief die Gewichtszunahme ähnlich wie bei den in Freiheit aufge-

zogenen Vögeln. Wurden sie später entnommen, verlief die Gewichtszunahme langsamer. (G)