

## SEXING DOVES IV: Other methods

by

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Vent sexing, behavior, and sex-linked characters are reasonably accurate available ways of establishing what the sex is in ringneck doves and applies with appropriate modifications to several or all species of the family Columbidae. Other methods have been described which are either less available, or are not scientifically confirmed.

Laparotomy is an operation penetrating the body cavity so that one can look at the internal gonads (primary sex organs) directly. I have performed a very few hundred such operations on ringnecks and domestic pigeons. The birds is strapped down or held on its back by a second person (fingers on its legs, and thumbs on its wings with the head toward the holder). Feathers are plucked to one side of the vent region (the "lap") and the skin and thin wall muscle cut horizontally in the palpably depressable area, to the side of the mid line (preferably right side), avoiding the blood vessel on the mid-line. That is, the cut (scissors) is between the keel rim and the tail bones. An opening about 3/4" long is made.

Very little bleeding is encountered and it usually clots quickly. A few very thin air sac membranes can be pricked or cut open and a full view of the interior obtained by probing aside the intestines and gizzard. A head lamp or flash light is necessary to illuminate the interior. The gonads lie forward by the kidney at the bottom of the area viewed. The male's testes (2) are shaped like a slender kidney bean (but larger) and smooth. The female's ovary is a bumpy granular mass. Examining a dead bird before looking at a live one helps. The muscle cut is sewed up and the skin sewed up separately (or clamped) with 1 or two stitches (any good thread will do-- in fact no stitches might be OK).

I have seen male pigeons start fighting immediately after the operation with no ill effects demonstrable. The bird's high body temperature (see APJ July '74) obviates sterile technics (but try for cleanliness, of course). An anesthetic may be used (ask a veterinarian) but in my experience (and some others) some birds die evidently from the anesthetic alone.

A more academic description of a laparotomy may be seen in the PGNL (Vol. 67: 13-15) by Van Oosten and Foster. Ringnecks younger than 5 weeks should not be operated on in this way since the gonads are not sufficiently distinguishable till then. I once was able to do a bird laparotomy as a one man operation every 10 minutes until I got too tired. A related method goes in through the side. I think you can see, however, why I wanted to develop the vent sexing method.

A look-see instrument widely used by commercial Poultry concerns has an internal light that helps seeing through the thin gut wall in baby chicks. Dr. Hollander tells me a breeder in Hong Kong spent \$500 on one to sex pigeons, but had to make a hole into the body cavity below the tail and above the vent, since the gut route wasn't as straight as in chickens and the birds developed peritonitis, if the gut wall was broken.

Another method is the miniature plumbline, or pendulum, which is held above the bird to be sexed. If it develops a circular swing, it is a female, if a long pendulous arc it is a male. Many variations on this theme occur and are probably as accurate as a guess.

Other methods may be better than a guess but need more research and may apply only to particular breeds or strains. Some were reported in PGNL, but I can find only one.

(1) Beak-nostril ratio. The ratio of the bill tip distance to the nasal opening and thence to the back of the cere (cere length) is about equal in males and greater than 1 in females. This works in common or feral or wild pigeons, but not in racing homers or king crosses (Hollander 1969 PGNL 50:9).

(2) Vent-lip outline. Levi mentions Iwata's cloacal outline method (1926) in which the side view of the cloaca of the squab to about 23 days of age has a protruding upper border for a male and not protruding for a female. This was not confirmed in this country.

(3) Sharp nasal cere. Dr. Hollander has just translated an article from German in the Deutsche Geflügel-Zeitung (Vol. 83 #12 28 June '74) by H. Kühl who says his sexing method in Racing Homers and Hamburg Schimmel is 90% accurate in sexing squabs 4-10 days old (pinfeather stage). The male shows a sharp contour of the nasal cere structure which is much less obvious in the female.

(4) Size. Total weight and length usually separates sexes. Since a norm has to be established for each breed and even strains within a breed, this is not useful for most of us. I had some ringneck strains with the female definitely heavier than males. In other strains the more expected heavier males occurred. Riddle discovered this back in 1946, noting that in white kings and magpie pigeons and in two races of doves as well, the cocks weight did not exceed that of the hens.

Well you've probably heard of one or more methods not mentioned here. Probably, unlike my first three reports on sexing doves, none of these is "easy" even after you've had practice?

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