

A ROBIN WITH TWO SETS OF TAIL FEATHERS

BY ROBERT M. STABLER

Plate 32 (upper figure)

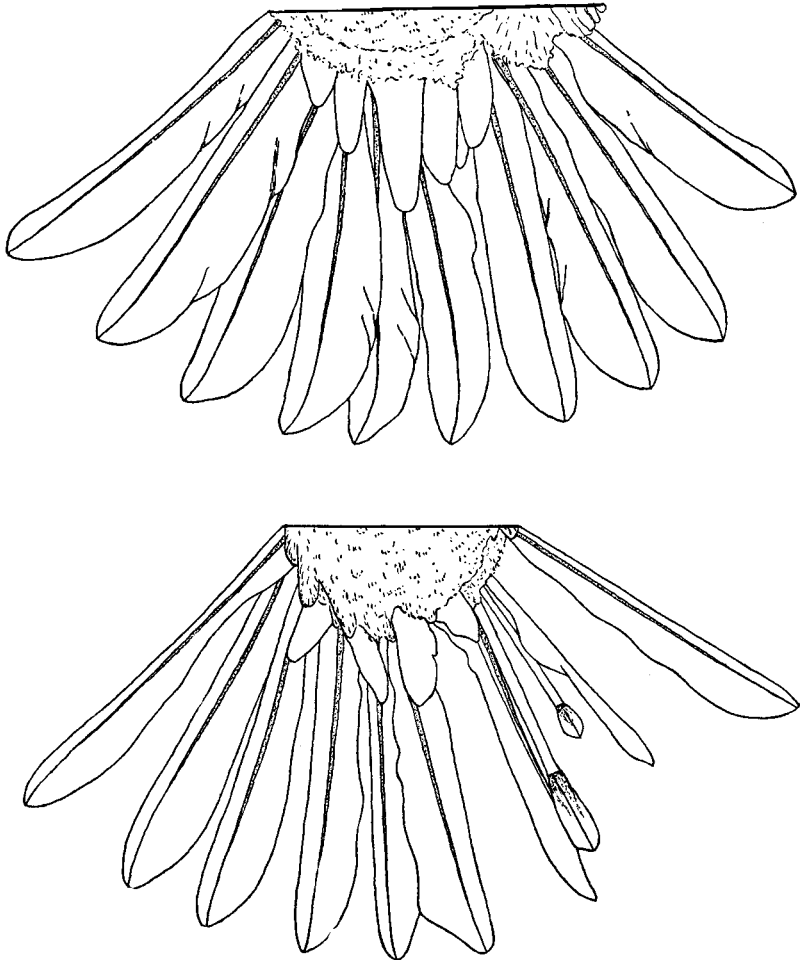
INTRODUCTION

BIRDS with extra toes, extra legs and wings have frequently been described. Bond (1926) and Punnett and Pease (1929) asserted that there was a true genetic factor controlling the appearance of the supernumerary toes in extra-digited chicks. An extra leg was described by Adams (1930), Stoneman (1932) and Shaw (1934) for a chicken, an English Sparrow and a duck respectively. Oka (1926) described a chick and Kříženecký (1926) a goose, each with four legs, and the latter author also gave an account of a chick with four legs and four wings. Chidester (1927) reviews the cases of four chicks and one duck, all with four legs each, and one chick having four legs and four wings. Although certain pigeons (fantails) have regularly many extra tail feathers, sometimes as high as from thirty to forty, no one, so far as the author is aware, with the exception of Kuhn (1932), has ever described a bird with two separate tails. Kuhn's case was that of a canary which had an extra tail growing from near the middle of its back. It seems worth while, therefore, to publish this note concerning a Robin with two distinct sets of tail feathers, which the author came across while examining some birds for protozoan parasites.

OBSERVATIONS

The Robin (*Turdus migratorius migratorius*) was an immature bird, collected in Wallingford, Pennsylvania, September 15, 1936, and it was not realized until the bird was in hand that it was the possessor of an extra tail. On closer examination, one tail was seen to be of normal position and arrangement, while the other was placed so that it was the exact mirror image of the first (Plate 32, upper figure, in side view). Both possessed upper and under tail coverts, which of course, were facing in opposite directions. Neither tail, however, had the normal number of feathers. The one in the correct position contained ten, the other eleven feathers, the latter including two which were still covered with epidermal sheaths. All of these were perfectly normal tail feathers so far as structure is concerned.

With reference to the skeleton, there was no deviation from the normal down to the bones of the uropygium. Whether or not there was any change here we are unable to state because of the fact that it was deemed wisest to preserve intact the two tails with their attendant structures. This complex is still in the writer's possession.



TEXT-FIG. 1.—*Above*, the tail that was normal in position. Note the coverts, asymmetry and number (ten) of the tail feathers.

Below, the accessory tail. Note the coverts, and the number (eleven) of tail feathers, and the presence of the epidermal sheath in two. Slightly reduced.

DISCUSSION

That birds with two tails must be rather rare, is evidenced by the fact that apparently only one other description of such a phenomenon has ever been published. In this case, that of the double-tailed canary (Kuhn, 1932), there were a number of curious features. The normal tail was normal in every respect, whereas the extra one was composed of only seven feathers, growing slightly to the left of the middle of the back. These seven feathers themselves were not like those of the true tail, but were bilaterally symmetrical, as are the other feathers of the back. Also, no coverts were associated with this tail and no skeletal modifications were present to support it. It, then, had few of the features of a true tail.

In the present bird, however, the extra tail was normal in the structure of the feathers, in the presence of typical coverts and in that it grew from the uropygium. It was unusual in that it was in a position which was the reverse of that of the normal tail and in that it possessed only eleven feathers. It also had one more feather than did the so-called normal tail, which was itself two short of the number (twelve) typical for the species.

In many of the descriptions of birds with extra appendages there is to be noted an accompanying change in some other morphological feature. Oka (1926) and Adams (1930) both describe extra pelves in four- and three-legged chickens respectively and Chidester (1927) noted the modification (such as two cloacas) of the alimentary canals of some of his birds with extra wings and legs. Kuhn (1932), however, found no skeletal change in his canary and the present case also involves no change in the bony structure, at least up to the uropygium.

Discussion as to how these variations arise is, of course, pure speculation. From what we know of the duplication of parts in other animals, however, it would seem that the stimulus for the production of extra legs, wings, tails, etc., must come at a very early period in the life of the embryo. The exact nature of the stimulation is still in doubt.

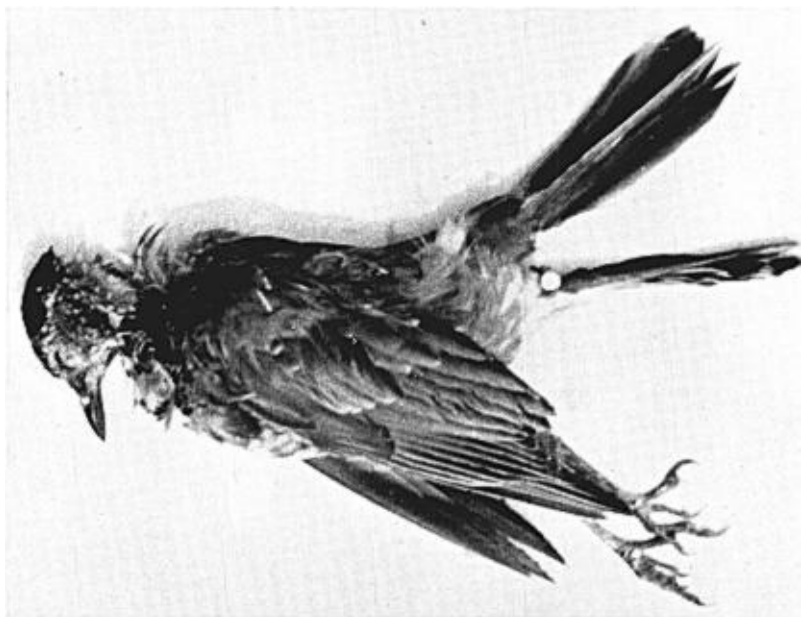
SUMMARY

1. A note is made of an immature Robin (*Turdus migratorius migratorius*) possessing two tails, both of which grew from the uropygium, the lower one having ten feathers, the upper eleven.
2. The extra tail was arranged as a mirror image of the one which was normal in position.
3. Both tails possessed typical coverts.
4. No skeletal modifications were noted.

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