

A Fawn-colored Gray Partridge (*Perdix perdix*) from Wisconsin.—Aberrant plumages of birds have been of interest to ornithologists for many years (Rensch, 1925; Nero, 1954; Gross, 1965; Harrison, 1963, 1966). This note reports on a single fawn-colored wing in a collection of 4,260 Gray Partridge (*Perdix perdix*) wings sent to me by Wisconsin hunters since 1951 for sex age determination. They have also sent many other kinds of bird wings in error, but only one that could be considered as an obvious color aberration of the normal partridge plumage. Figure 1 shows the fawn-colored specimen compared with a normal partridge wing.

Pigments in bird feathers according to Van Tyne and Berger (1959) are of three kinds, melanins, carotenoids, and porphyrins. Harrison (1963) states that "A normal plumage is one in which melanin is present in the quantities, and of the type, which gives the plumage the colouration typical of that species, either some shade of grey, brown, buff, or black, or modified by carotenoids or feather structure to appear olive, green, blue, or purple."

Schizochroism is a condition of the feathers occurring when one of the normally present major pigments in a given species is absent. The peculiar plumage of this partridge wing is undoubtedly schizochroism and in particular "non-cumelanic schizochroism" of Harrison (1963). In this case the black or gray pigments are presumably missing from the plumage, thereby giving the wing feathers a fawn or pale brown color.

Another type of variation, non-phaeomelanism, produces a gray form by the loss of the red-brown pigments. In examining each of the 4,260 wings from Wisconsin and perhaps 400 to 500 more from elsewhere I have never observed the latter condition. Rensch (1925) and Stresemann (1934) record both kinds of plumage variations for the Gray Partridge in Europe. Some evidence suggests that this particular variation may be sex-linked. Harrison in his careful treatment of the subject (1963) states:

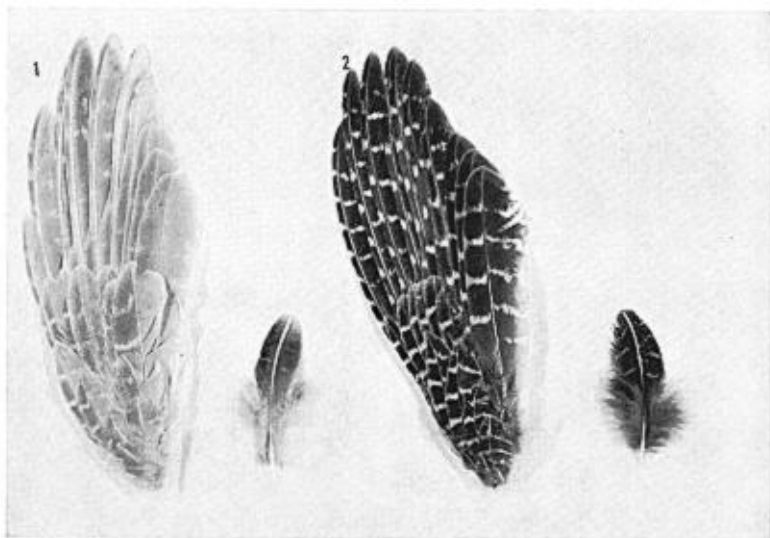


Figure 1. Schizochroism in a Gray Partridge (*Perdix perdix*). Fawn-colored wing (1) and normal wing (2); both specimens are females. Lower feathers are secondary wing coverts showing the cross barring sex character of the female.

"Since in birds the female is the heterogametic sex, it is among the females that sex-linked varieties are first likely to become apparent. The ratio of sixteen females to three males in the sexed skins of fawn birds, while too small a sample to be very significant, suggests additional confirmation." This Wisconsin specimen is also a female.

Although 4,260 wings is not an overwhelming sample, the fact that only one fawn and no gray variants were found would indicate the comparative rarity of schizochroism in this partridge in North America.

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Active anting in the Puerto Rican Tanager.—Anting, a bird's intentional exposure of its body surface to chemical substances secreted by ants or other agents, has been recorded in over 210 species of birds of 40 families, mostly within the order Passeriformes. Our observations of anting in the Puerto Rican Tanager (*Nesospingus speculiferus*) extend the phenomenon to a new genus and the 14th species of the Thraupidae.

Simmons (J. Zool., London, 1949: 145, 1966) describes the typical, remarkably stereotyped behavior patterns connected with the two general forms of anting: active anting in which the bird applies the ant or its secretion to the plumage, and passive anting in which ants are permitted to climb into the plumage and anoint it unprovoked. The function of anting is still open to speculation, although recent thinking (Simmons, op. cit., and especially the work of Dubinin in Kelso and Nice, *Wilson Bull.*, 75: 23, 1963) suggests in part that it aids in controlling ectoparasites and that in some cases the secretions may augment the birds' preen oil in dressing the plumage.

On 22 January 1969 between 09:00 and 10:00 we watched a Puerto Rican Tanager engage in a 37-minute bout of active anting. The anting took place at a height of 6 m in a sapling in La Mina Recreation Area, Luquillo Experimental Forest, Puerto Rico, at 670 m elevation in high-rainfall mixed swamp cyrilla (*Cyrilla racemiflora*)-Sierra palm (*Euterpe globosa*) forest. Although the sky was clear, the moss covering the tree on which the anting took place was saturated with rain from the previous night. The tanager perched on a small limb adjacent to the main trunk of the tree, plucked rapidly at the moss, and thrust its bill, often with a small piece of moss in it, into either its rectrices or remiges. On each thrust it extended partially either the right or left wing, elevating the anterior edge so that the ventral surface met the thrust