

A heavily inflamed surface crust and moderate sub-epithelial leucocyte infiltration were noted. Inoculation studies were not attempted because the bird had been preserved in 10 per cent formalin.

This specimen was one of nine Cassin's Sparrows collected in an area of one square mile over a period of 24 hours. None of the other specimens showed evidence of lesions on the head or extremities. Therefore, this was probably an isolated case. A review of published accounts suggests that the head lesions in outbreaks of fowl pox in passeriform birds are uncommon (Muselman 1923; Bleitz 1958; Stewart 1963), and that the feet and tarsi are the usual sites. In contrast, a high proportion of galliform birds with fowl pox showed head lesions (Syverson and Cowan 1944; Blankenship et al. 1961), while the columbiform species showed involvement of both sites (Kossack and Hanson 1954; Locke 1961; Blankenship et al. 1966).

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## ALLOPREENING IN THE DOVE *GEOTRYGON MONTANA*

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Allopreening or mutual preening is a behavior pattern known for a large number of avian families (Harrison, *Behaviour* 24: 161, 1965), but its adaptive significance and evolution remain incompletely understood. It is thus pertinent to place on record all observations of allopreening, however fragmentary. Notable among previous observations of mutual preening in Columbidae are those of Goodwin (*Bird Study* 3: 25, 1956) on some species of *Columba* and *Streptopelia*. Harrison (op. cit.) has gone so far as to suggest that the phenomenon occurs in most, if not all, species of this family.

On 9 June 1967 I observed allopreening in a pair of Ruddy Quail-Doves (*Geotrygon montana*) in secondary forest in the northern mountain range of Trinidad. A male and a female had been observed foraging on the forest floor in the same area for several days. During one such foraging bout on the above date the female stopped and commenced autopreening. The male approached her and walked to and fro around her anterior end in an upright posture, his neck extended straight up, with the head held normally. The posture was apparently an allopreening-solicitation posture, for the female soon began to preen the feathers of the male's head and neck. When she did so the male lowered his head and slightly rotated it away from the female. Whenever the female ceased to preen the male he resumed soliciting, and the female would then resume preen-

ing him. The bout lasted for several minutes. The female's movements resembled normal autopreening motor patterns; the male nibbled the female's neck feathers a little during his solicitation, but no true reciprocation of allopreening was seen.

Immediately after the bout ended, the male mounted and copulated with the female. Both birds then autopreened side by side before resuming foraging.

This single brief observation clearly cannot form any substantial basis of serious speculation as to the motivation and functional significance of allopreening in this species, but a few important points are worth stressing. Allopreening was confined to the feathers of the head (mainly the crown) and neck, as is the case in most other observed allopreening species. It occurred between a pair of birds previously observed together for several days and probably with an established pair bond, but I make this point tentatively in view of the fact that these birds were not banded and identification was based on behavior. There was clear evidence that the sexual tendency was simultaneously activated, at least in the male, but no aggressive behavior was observed before, during, or after allopreening. The temporal association between auto- and allopreening known for other species of birds was also evident in this species. Finally, the present example is one of the less common ones in which it is the male and not the female that solicits allopreening and is preened. It seems probable that the solicitation/preening ritual facilitated the full expression of the sexual tendency by reducing the aggressive and (or) fleeing tendencies of the pair, but further observation is necessary to establish and clarify this point.

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