

The Sand Grouse has a definite habit of watering daily about two hours after sunrise and it is likely that individuals can be detected flying to watering sites shortly after sunrise. In flight the Sand Grouse resembles a dove; the dark, almost black, underwing pattern and belly are distinctive field marks. While in flight the bird emits a series of sounds that resemble *cluck-cluck*.



Fig. 1. Sand Grouse (*Pterocles exustus hindustan*) showing dark, almost black, outer flight feathers.

It would be appreciated if records concerning this species in the southwestern United States and México are sent to the author.—GLEN C. CHRISTENSEN, *Nevada Fish and Game Department, Reno, Nevada, March 15, 1962.*

Stimuli for Ovulation in the Rock Dove.—Ovulation and subsequent egg laying in birds are under general neuroendocrine control. Such control is known to be influenced by a variety of gross environmental factors, some of which can be remarkably subtle in their action. One such subtlety is the presence of suitable nesting material. This has been shown to be closely associated with both ovulation and egg laying in several species of birds (Harper, *Amer. Jour. Anat.*, 3, 1904:349–386; Hinde and Warren, *Anim. Behav.*, 7, 1959:35–41; Lehrman, Brody, and Wortis, *Endocrinol.*, 68, 1961:507–516; Marshall and Disney, *Nature*, 180, 1957:647–649). Concerning chiefly pigeons and doves, Lehrman (*in* Young, *Sex and Internal Secretions*, Williams and Wilkins, 1961:1281) thinks the evidence indicates that for birds “in which the male participates in nest-building, the presence of nesting material and/or the change in behavior of the male which is made possible by the presence of nesting material, helps to stimulate ovulation in the female.” The critical work on which this conclusion is based has not, for columbids, distinguished between influence of mere presence of nesting material and influence of the completed nest (but see Hinde and Warren, *op. cit.*, for information concerning other kinds of birds, such as canaries, *Serinus canarius*). The present note deals with observations supporting Lehrman’s hypothesis and minimizing the importance of the completed nest as a meaningful stimulus for ovulation.

Table 1 summarizes the occurrence of certain events in five nesting attempts of two pairs of feral Rock Doves (*Columba livia*) in 1959 and 1962, on the southeastern corner of the third story of Dyche Hall, on the campus of The University of Kansas. So far as is known, both pairs were capable of normal and successful nesting effort. However, for nests A1, A3, and B1, the choice of nest site precluded successful nest building, and all material brought by the males to the narrow ledge used by the pairs eventually dropped off, was blown off by winds, or was brushed off by movements of the birds. The females did in fact bill most of the material brought by the males, so that it can be said that all

TABLE 1

SUMMARY OF EVENTS IN NESTING ATTEMPTS BY TWO PAIRS OF ROCK DOVES

Nest	Dates of nest building	Amount of material at end of building	Dates eggs laid	Fate of eggs
A1	Feb. 25-28, 1959	None	March 1, 2, 1959	Rolled from ledge
A2	March 11-13, 1959	Complete nest ¹
A3	March 15-16, 1959	None	March 17, 18, 1959	Rolled from ledge
A4	March 18-26, 1959	Complete nest	March 29, 31, 1959	Both hatched
B1	March 25-28, 1962	None	March 29, 30, 1962	Rolled from ledge

¹ Destroyed by high wind, March 14, 1959.

of the potentially meaningful behavioral and tactile stimuli associated with nest building were present, except for that resulting from the partly completed nest and finished nest and nestcup. In each instance eggs were laid and rolled off the ledge.

Nests A2 and A4 were constructed in a broad, partly secluded nook, and were wholly characteristic of first-rate nests of Rock Doves. The entire nesting effort at A4 was successful, but that at A2 never went beyond nest building, owing to destruction of the nest by high wind. It is likely that the pair would have spent more time in nest building at A2, in spite of its relative state of completion; this likelihood would help explain why no eggs were laid at the site of A2 and would also help explain why only two days were spent in construction at A3.

These observations on feral Rock Doves under uncontrolled conditions suggest the following conclusions: (1) the presence of a completed nest is not necessary for ovulation in Rock Doves; (2) the opportunity of the female to handle nesting material brought by the male may be of some causative influence on ovulation; and (3) the behavior of the male in bringing nesting material is conceivably of paramount importance in the ovulatory response of females. Points 2 and 3 are consistent with the experimental results of Lehrman and his associates with Ring Doves (*Streptopelia risoria*).—RICHARD F. JOHNSTON, *Museum of Natural History, The University of Kansas, Lawrence, Kansas, April 24, 1962.*

The Trumpeter Swan in Marin County, California.—On January 3, 1962, we observed a swan on Abbott's Lagoon on the Point Reyes Peninsula, Marin County, California. Subsequent check on the identity of the bird in company with Mr. Eugene Kridler of the Malheur Refuge, Oregon, revealed it to be a Trumpeter Swan (*Cygnus buccinator*). On February 17 and 18 Mr. Kridler and the authors heard the characteristic protesting notes of the species as the bird arose from the water. Comparisons were made with tape recordings and the identity has been verified by Mr. Kridler and Mr. Winston Banko of the Bureau of Sport Fisheries and Wildlife. The call is much lower and more resonant than the high-pitched muted call of the Whistling Swan (*Cygnus columbianus*).

The Trumpeter Swan was last seen on March 9. By March 14 it had left. This is the first record of the species in California since November 8, 1935, when McLean (Condor, 39, 1937:228) observed one in Lassen County.—ALICE WILLIAMS and GRACE M. MILLER, *Inverness, California, April 10, 1962.*

An Albinistic Anna Hummingbird.—On March 28, 1961, Mrs. Erin Johnson reported seeing an albino hummingbird near her home in El Cerrito, Contra Costa County, California. The authors observed the bird that afternoon and collected it on the following day. The bird was a male Anna Hummingbird (*Calypte anna*) with testes less than 1 mm. in length. It weighed 4.0 gm. and had moderate fat on the back and throat. The irides were dark. Based on the shape of the rectrices and outer secondaries it was judged to be a juvenile (Williamson, Condor, 58, 1956:342-366). In life the bird appeared to be pure white, with perhaps a rosy cast; however, closer examination revealed the partial nature of the albinism (fig. 1).

Albinism has been reported for relatively few North American hummingbirds. A completely albino Black-chinned Hummingbird (*Archilochus alexandri*) was reported by Oberholser (Condor, 21, 1919:122). Incomplete albinism has been reported for the Anna Hummingbird by Allen (Bull. Nutt. Ornith. Club, 3, 1878:192-193), by Emerson (Ornith. and Ool., 13, 1888:83), and by McGregor